

**United Nations Conference  
on Environment and Development  
(UNCED)**

**Fourth Session of the Preparatory Committee**

**New York**

**2 March to 5 April 1992**

**FINAL REPORTS**

**Vol I**

**UNCED PREPCOM IV**  
**NEW YORK, 2 MARCH - 3 APRIL 1992**  
**FINAL REPORT OF THE CANADIAN DELEGATION**  
**TABLE OF CONTENTS**

**VOLUME I**

1. Overview
2. Summary
3. Non-Governmental Participation
4. Agenda 21 Preamble

**WORKING GROUP I**

5. Protection of the Atmosphere
6. Management of Land Resources
7. Deforestation and Guiding Principles on Forests
8. Desertification and Drought
9. Sustainable Mountain Development
10. Sustainable Agriculture and Rural Development
11. Biodiversity
12. Biotechnology

**WORKING GROUP II**

13. Oceans
14. Freshwater
15. Toxic Chemicals
16. Hazardous Wastes
17. Solid Wastes and Sewage
18. Radioactive

NON - CIRCULÉ  
CONSULTER SON PÈRE

Dept. of External Affairs  
Min. des Affaires extérieures

NOV 4 1992

RETURN TO DEPARTMENTAL LIBRARY  
RETOURNER À LA BIBLIOTHÈQUE DU MINISTÈRE

**WORKING GROUP III**

19. Earth Charter/Rio Declaration

43-264-128

20. Capacity Building
21. Institutional Arrangements
22. Role of Regional Organizations and Co-operation
23. Legal Instruments and Mechanisms

## **VOLUME II**

### **PLENARY**

24. Policies to Accelerate Sustainable Development
25. Combating Poverty
26. Changing Consumption Patterns
27. Population
28. Human Health
29. Human Settlements
30. Integration of Environment and Development in Decision Making
31. Financial Resources
32. Technology Transfer
33. Science for Sustainable Development
34. Environmental Education, Training and Public Awareness
35. Information for Decision-Making
36. Major Groups:
  - A. Global Action for Women
  - B. Youth
  - C. Indigenous People
  - D. Non-Governmental Organizations
  - E. Local Authorities
  - F. Trade Unions
  - G. Business and Industry
  - H. Scientific [and Technological] Community
  - I. Strengthening the Role of Farmers





P R O T E C T E D

FM EXTOTT EEEU2435 10APR92

TO EXTOTT GENEV PRMNY

INFO POECD NROBI LDN PARIS ROME WSHDC BONN BREEC TOKYO OSLO STKHM  
COPEN HSNKI HAGUE BERN VIENN VPERM LSBON PRGUE MOSCO PEKIN SEOUL  
CNBRA WLGTN JKRTA SPORE KLMPR MANIL BNGKK DELHI ISBAD CLMBO TERAN  
RIYADH TAVIV CAIRO TUNIS ALGER RABAT DAKAR ACCRA ABDJN LAGOS YUNDE  
HRARE DSLAM LSAKA PRET BAIRS STAGO BRSLA CRCAS LIMA BGOTA SJOSE  
GTMLA MXICO KNGTN BDGTN CNGNY BOSTON CLVLD DALAS MNPLS CHCGO SEATL  
SFRAN LNGLS

INFO PMOOTT/CAMPEAU PCOOTT/HEINBECKER/JALBERT/FRANSEN  
FINOTT/DODGE/SMEE/IFD/ANDERSON/EERD

CIDAHULL/PRE/SVP/YVP/YEN/MVP/MTC/RVP/RNF/REE/RNA

BH ENVHULL/MIN-OFF/PRICE/MCGRATH/CAMPEAU/SLATER/HURTUBISE

ENVHULL/AES-DOWDESWELL/RUSSELL EMROTT/MIN-OFF/MOYER/FISHER

ISTCOTT/BLACKBURN/ALEX DIANDHULL/MIN-OFF/GRAHAM/WILSON

FANDOTT/MIN-OFF/RABINOVITCH/APPLEBAUM/LARK

FORCANHULL/MIN-OFF/MAINI/DRAKE

DISTR MINA MINT MINE NBX NEX EFB EED EEA EER EEE KAR EMS EMD JPB

JCD JLO BCB BPF BMM PGB PSD PSR PND PNR LGB LGD LCR LSR LST GAA GAF

GMR GMD GGB UGB UGD URR

---UNCED PREPCOM FOUR: OVERVIEW AND EVALUATION

SUMMARY: PREPCOM FOUR PROVED TO BE AN UNEXPECTED PROCEDURAL SUCCESS

- ALTHOUGH THE MOST DIFFICULT ISSUES ON THE CONFERENCE AGENDA STILL

REQUIRE RESOLUTION IN RIO. THIS PREPCOM CONFOUNDED OUR EXPECTATIONS

ON A NUMBER OF COUNTS. THE CDN DEL CAME TO NEW YORK CONCERNED THAT

THE TALKS WOULD DEADLOCK ON NORTH - SOUTH LINES. INSTEAD, THE

PREPCOM GAINED MOMENTUM AS IT MOVED ALONG, AND DELEGATIONS SUCCEEDED IN NEGOTIATING EVERY ISSUE ON UNCED'S OVER-LOADED AGENDA. MANY DELS, INCLUDING OUR OWN, BELIEVED THAT AGENDA 21 AS DRAFTED WOULD BE UNNEGOTIABLE. INSTEAD, AGREEMENT WAS REACHED ON ABOUT 90 PERCENT OF THE FINAL TEXT, IN THE SAME LEVEL OF DETAIL AS IT WAS ORIGINALLY DRAFTED BY THE UNCED SECRETARIAT. THE CANADIAN DEL WAS CONCERNED THAT WE WOULD BE PRESSURED BY OTHERS TO MAKE ENVIRONMENTAL COMMITMENTS BEYOND CURRENT CANADIAN POLICY AUTHORITIES. INSTEAD, WE FOUND THAT WE COULD CONCLUDE AGREEMENTS READILY WITHIN THE PARAMETERS OF OUR NEGOTIATING MANDATE. WE WERE ALSO CONCERNED THAT CANADA'S DOMESTIC ENVIRONMENTAL RECORD WOULD COME UNDER CLOSE CRITICISM FROM NGOS AND THE MEDIA IN NEW YORK. INSTEAD, THERE WAS NO/NO MEDIA COMMENT AND VIRTUALLY NO/NO NGO COMMENT ON THIS SCORE, AS BOTH GROUPS FOCUSED THEIR ENERGIES ON THE STANCE OF THE USA DELEGATION. IN THE MEANTIME, THE CDN DEL CONTINUED TO RECEIVE CREDIT FOR THE EXTENSIVE INVOLVEMENT OF NGOS, PROVINCES AND THE BUSINESS COMMUNITY, AND FOR OUR REGULAR BRIEFINGS FOR THE MEDIA.

2. THE PRINCIPAL RESULTS OF THE PREPCOM WERE THAT DELEGATIONS FINALIZED THE BULK OF AGENDA 21; PRODUCED A DRAFT TEXT FOR THE EARTH CHARTER - NOW CALLED THE RIO DECLARATION; AND DEVELOPED CREDIBLE OPTIONS FOR THE INSTITUTIONAL FOLLOW-UP OF UNCED. THE CANADIAN DEL ACHIEVED THE MAJORITY OF ITS OBJECTIVES ON THE SPECIFIC SECTORAL ISSUES; AND WE ACHIEVED A SIGNAL SUCCESS IN ISOLATING THE EC ON THE ISSUE OF OVER-FISHING AND BUILDING NEW ALLIANCES WITH OTHER COASTAL STATES FOR OUR POSITION. THE MOST DISAPPOINTING OUTCOME FOR CDN INTERESTS WAS THE MINIMAL PROGRESS

MADE IN NEGOTIATING THE GUIDING PRINCIPLES ON FORESTS. NEVERTHELESS, OUR TWO MAJOR DOMESTIC PRIORITIES IN UNCED - FORESTS AND FISHERIES - ARE NOW RECOGNIZED AS PRIORITIES FOR UNCED TO ADDRESS, AND WERE ACKNOWLEDGED AS SUCH IN THE FINAL SUMMATION OF PREPCOM FOUR BY CHAIRMAN KOH.

3. THESE RESULTS, HOWEVER, HAVE TO BE MEASURED AGAINST THE FAILURE OF THE PREPCOM TO REACH ANY AGREEMENT ON THE CRITICAL OF FINANCIAL RESOURCES. IN THE END, THE NEGOTIATIONS BROKE DOWN OVER A THE POTENTIAL ROLE OF THE GLOBAL ENVIRONMENTAL FACILITY IN THE FUNDING OF AGENDA 21. ALTHOUGH THE DEVELOPING COUNTRIES SCALED BACK THEIR DEMANDS SUBSTANTIALLY BY THE END, THERE IS STILL A CLEAR GAP IN EXPECTATIONS, AND A SUBSTANTIAL ELEMENT OF MISTRUST. WITHOUT A RESOLUTION OF THIS ISSUE IN RIO, WE WILL NOT/NOT BE ABLE TO REALIZE THE OTHER RESULTS ACHIEVED IN NEW YORK.

4. WITH THE COMPLETION OF PREPCOM FOUR, THE AGENDA FOR THE RIO CONFERENCE IS NOW CLEAR. THERE WILL BE A SIGNIFICANT NEGOTIATING COMPONENT TO THE CONFERENCE. THIS WILL INCLUDE A LIMITED NUMBER OF HIGHLY POLITICAL SECTORAL ENVT ISSUES, SUCH AS FORESTS AND FISHERIES. HOWEVER THE FOCUS OF THE NEGOTIATIONS WILL BE ON HOW AGENDA 21 IS TO BE PACKAGED AND DELIVERED. THIS WILL INVOLVE FINALIZING DECISIONS ON INSTITUTIONAL FOLLOW-UP AND ABOVE ALL, AGREEING ON THE APPROPRIATE APPROACHES TO FUNDING AGENDA 21.

5. REPORT: WHEN PREPCOM FOUR BEGAN ON 02MARCH IN NEW YORK, THERE WAS A WIDESPREAD EXPECTATION THAT IT FACED AN ALMOST IMPOSSIBLE TASK. PREPCOM FOUR WAS SLATED TO BE THE ONE AND ONLY FULL NEGOTIATING SESSION FOR THE PRINCIPAL OUTPUT OF UNCED - AGENDA 21.

PAGE FOUR EEEU 2435 PROTECTED

AS DRAFTED BY THE UNCED SECT, WITH INPUT FROM INDIVIDUAL EXPERTS DRAWN FROM GOVTS AND UN AGENCIES, AGENDA 21 HAD 39 CHAPTERS AND OVER 400 PAGES OF TEXT. PRELIMINARY NEGOTIATIONS BY GOVTS HAD BEEN HELD DURING PREPCOM THREE ON LESS THAN HALF OF THE TEXT, AND EVEN THEN, PROGRESS WAS EXTREMELY LIMITED. FOR THREE OF THE KEY ISSUES - FINANCIAL RESOURCES, INSTITUTIONS AND THE EARTH CHARTER - THE UNCED SECT ELECTED NOT/NOT TO DRAFT A NEGOTIATING TEXT, LEAVING DELS TO PRODUCE THEIR OWN WHILE IN NEW YORK.

6. THE CANADIAN DELEGATION CAME PREPARED TO THIS PREPCOM WITH A COMPREHENSIVE NEGOTIATING MANDATE APPROVED BY CABINET ON ALL 39 ISSUES, BACKED UP BY DETAILED NEGOTIATING INSTRUCTIONS. NEVERTHELESS, OUR INITIAL APPROACH WAS TO SEEK A SIMPLIFICATION OF AGENDA 21, IN THE INTERESTS OF ENSURING A MANAGEABLE PROCESS. WHILE VIRTUALLY ALL OECD DELS SHARED THE SAME CONCERN, PREPCOM CHAIRMAN KOH DELIBERATELY DECIDED TO AVOID SCHEDULING ANY GENERAL DEBATE ON THE STRUCTURE AND IMPLEMENTATION OF AGENDA 21, WHICH WOULD HAVE OPENED UP FOR QUESTIONING THE SECRETARIATS APPROACH TO DRAFTING AGENDA 21. INSTEAD THE SECT ENSURED THAT THE PREPCOM STUCK TO A STRICT TIMETABLE, SCHEDULING EVERY DRAFT AGENDA 21 CHAPTER, FIRST FOR INFORMAL DEBATE, THEN REQUESTING WRITTEN COMMENTS FROM DELS, REDRAFTING EACH CHAPTER ACCORDINGLY, AND THEN SCHEDULING SMALL CONTACT GROUPS AMONG DELS THAT HAD SUBMITTED COMMENTS TO IRON OUT THE REDRAFTS. BY WEEK THREE, PREVIOUS CONSTRAINTS AGAINST HOLDING NIGHT SESSIONS, WEEK-END SESSIONS OR MORE THAN TWO MEETINGS AT A TIME WENT BY THE BOARDS. AT THE SAME TIME, THE QUOTE MEANS OF IMPLEMENTATION UNQUOTE SECTIONS IN EACH CHAPTER OF AGENDA 21 WERE

SIMPLY BRACKETED AND BY-PASSED. THUS DELEGATIONS WERE NOT OBLIGED TO ADDRESS THE SECTS ESTIMATES OF DEVELOPING COUNTRIES NEEDS FOR FINANCIAL FLOWS, TECHNOLOGY TRANSFER, HUMAN RESOURCE DEVELOPMENT AND CAPACITY BUILDING, IN ORDER TO CARRY OUT THESE PROGRAMS OUTLINED IN EACH CHAPTER OF AGENDA 21. IN THE FINAL WEEK, ALL THE DRAFT CHAPTERS AS THEY EMERGED FROM DRAFTING GROUPS WERE THEN RUN THROUGH PLENARY FOR APPROVAL. THE FINAL PLENARY ON 03APRIL RAN ALL NIGHT AND CONCLUDED AT 05:00 ON SATURDAY MORNING.

7. THE RESULT WAS THAT THE DELEGATIONS ENDED UP NEGOTIATING AND APPROVING ABOUT 90 PERCENT OF THE TEXT COVERING THE BASIS FOR ACTION, OBJECTIVES AND ACTIVITIES FOR EACH CHAPTER OF AGENDA 21. A SIGNIFICANT NUMBER OF THE CHAPTERS HAVE NOW BEEN FINALIZED, WITH NO/NO OUTSTANDING BRACKETS. THIS INCLUDES SUCH SENSITIVE ISSUES FOR CANADIAN INTERESTS AS HAZARDOUS WASTES, TOXIC CHEMICALS, FRESHWATER AND THE MARINE POLLUTION PROGRAM AREAS OF THE OCEANS CHAPTER. OTHER CHAPTERS HAVE ONLY A MINOR BRACKETED AREAS, REFLECTING A FAILURE IN THE FINAL HOURS TO FORMULATE THE APPROPRIATE COMPROMISE WORDING. THIS IS THE CASE FOR EXAMPLE WITH THE CHAPTERS ON CONSUMPTION PATTERNS, TRADE AND DEBT, AND THE CHAPTER DEALING WITH NGO PARTICIPATION, KNOWN AS MAJOR GROUPS.

8. AS A DELEGATION, WE WERE PLEASED WITH THESE RESULTS. THE FACT THAT WE CAME WELL PREPARED WITH WRITTEN COMMENTS ON EACH CHAPTER ENSURED THAT OUR VIEWS WERE SUBSTANTIALLY REFLECTED IN THE REDRAFTING PROCESS. OUR CLOSE CO-ORDINATION WITH THE OTHER TWO CANZ DELEGATIONS (AUSTRALIA AND NEW ZEALAND) ON MANY ISSUES, PARTICULARLY ON THE SOCIAL ISSUES, HELPED MAGNIFY OUR IMPACT ON THE

NEGOTIATING PROCESS. THE RESULT WAS THAT THE CHAPTERS ON WHICH CONSENSUS HAS BEEN REACHED MEET THE GREAT MAJORITY OF OUR OBJECTIVES, AND NO/NO OCCASION WERE WE PUSHED BEYOND THE PARAMETERS OF NEGOTIATING INSTRUCTIONS IN ORDER TO ACHIEVE CONSENSUS (ALTHOUGH AT ONE POINT WE CAME CLOSE ON THE ISSUE OF TECHNOLOGY TRANSFER). THE MORE DETAILED FINAL REPORTS BEING PREPARED BY THE DELEGATION WILL PROVIDE A SPECIFIC ASSESSMENT OF THE RESULTS OF EACH CHAPTER, MEASURED AGAINST OUR OBJECTIVES.

9. BEYOND THE PROCEDURAL PRESSURE TACTICS EMPLOYED BY PREPCOM CHAIRMAN KOH, SEVERAL OTHER FACTORS HELPED TO KEEP UP THE MOMENTUM OF NEGOTIATIONS. THE FACT THAT THIS WAS THE FINAL SESSION BEFORE MINISTERS ARRIVE IN RIO WAS A POWERFUL INDUCEMENT FOR DELS TO REACH COMPROMISES ON ISSUES THEY KNEW WOULD NOT/NOT BE POLITICALLY IMPORTANT TO THEIR LEADERS. A SECOND FACTOR WAS THAT THE G77 AS A BLOC IDENTIFIED THOSE ISSUES ON WHICH TO CONCENTRATE THEIR EFFORTS GAINS VIS A VIS THE DEVELOPED COUNTRIES - IN PARTICULAR, ON FINANCIAL RESOURCES, TECHNOLOGY TRANSFER AND THE EARTH CHARTER; AND THEY CHOSE NOT/NOT TO HOLD NEGOTIATIONS ON THE OTHER ISSUES HOSTAGE TO PROGRESS ON THESE THREE ISSUES. ALTHOUGH FEW G77 DELS WERE PREPARED TO NEGOTIATE ACROSS THE WATERFRONT OF ISSUES, EVERY CHAPTER OF AGENDA 21 HAD SUPPORTERS AMONG THE G77 WHO HAD COME PREPARED TO NEGOTIATE A CONSTRUCTIVE RESULT. AS A CONSEQUENCE, PROCEDURAL GRANDSTANDING BY ONE PERSON G77 DELS (E.G. MAURITANIA AND TUNISIA) WHICH HAD PLAGUED EARLIER PREPCOMS, WAS KEPT TO A MINIMUM. FINALLY, WHILE THE QUALITY OF THE UNCED SECTS WORK WAS NOT/NOT UNIFORM, OVERALL IT DID AN EXCELLENT JOB IN DRAWING ON

EXPERTISE FROM NATIONAL GOVTS AND INTERNATIONAL AGENCIES TO DRAFT BALANCED NEGOTIATING TEXTS THAT THE GREAT MAJORITY OF GOVTS COULD ACCEPT. THE FACT THAT DELS WERE PREPARED TO WORK WITH EVERY DRAFT CHAPTER SAVE ONE (ON BIODIVERSITY) AS A BASIS FOR NEGOTIATION, WAS TESTIMONY TO THE EFFECTIVENESS OF THE SECTS WORK.

10. NEVERTHELESS, THERE IS STILL A SUBSTANTIAL AMOUNT OF NEGOTIATING IN RIO. IT IS CLEAR THAT FOR THE DURATION OF THE PRE-SUMMIT PORTION OF THE CONFERENCE, AND OUTSIDE THE MAIN PLENARY HALL (WHICH WILL BE FILLED WITH MINISTERS DELIVERING NATIONAL STATEMENTS), THERE WILL BE A CONTINUING PREPCOM WORKING ON A MUCH NARROWER, BUT MORE HIGHLY CHARGED AGENDA. THE ISSUES THAT WILL HAVE TO BE ADDRESSED WILL BE AS FOLLOWS.

11. FIRST, DELEGATIONS WILL HAVE TO REVIEW AND FINALIZE THE RELEVANT SECTIONS OF THE BIODIVERSITY AND BIOTECHNOLOGY CHAPTERS AND THE ENTIRE ATMOSPHERE CHAPTER THAT WERE BRACKETED PENDING THE OUTCOME OF THE BIODIVERSITY AND CLIMATE CHANGE CONVENTION NEGOTIATIONS. IF BOTH OF THESE CONVENTIONS ARE SATISFACTORILY CONCLUDED IN THE FINAL NEGOTIATING SESSIONS FOR MAY, THIS SHOULD BE A LARGELY ADMINISTRATIVE TASK. IF THERE IS A BREAKDOWN ON EITHER OF THESE CONVENTION TRACKS, THESE CHAPTERS OF AGENDA 21 COULD BECOME SURROGATE BATTLEFIELDS. AT THE SAME TIME, DELS WILL HAVE TO FIND WORDING TO DEAL WITH THE MINOR BRACKETED SECTIONS IN SEVERAL OTHER CHAPTERS (AS DESCRIBED IN PARA 6 ABOVE). AGAIN, THIS SHOULD NOT/NOT PROVE CONTROVERSIAL.

11. FISHERIES: SECOND, THE CONFERENCE WILL HAVE TO DEAL WITH THREE HIGH PROFILE ISSUES IN THE SECTORAL CHAPTERS OF AGENDA 21, WHICH

PAGE EIGHT EEEU2435 PROTECTED

CANADA AND OTHER DELEGATIONS HAVE DELIBERATELY LEFT FOR MINISTERS TO RESOLVE IN RIO. FOR CANADA, THE MOST CRITICAL OF THESE ISSUES IS THE SECTION OF THE OCEANS TEXT, BRACKETED BY THE EC, WHICH RECOGNIZES THE INTERESTS OF COASTAL STATES IN THE EXPLOITATION OF STRADDLING STOCKS AND CALLING FOR A FUTURE INTER-NATIONAL CONFERENCE ON OVER-FISHING ON THE HIGH SEAS. (THE OUTCOME OF PREPCOM FOUR ON THIS ISSUE HAS BEEN DISCUSSED IN DETAIL IN PRMNY TEL WKGR3450 06APR92). THE EFFORTS OF CDN MINISTERS AND THE PRIME MINISTER AT UNCED TO MOBILIZE INTL SUPPORT FOR OUR POSITION VIS A VIS THE EC ON OVER-FISHING WILL FOCUS ON THIS SECTION OF AGENDA 21.

12. FORESTS: ALSO IMPORTANT FOR CANADA IS THE AGENDA 21 CHAPTER ON DEFORESTATION, WHICH CALLS FOR THE LAUNCHING OF A GLOBAL FOREST CONVENTION AFTER UNCED. CANADA AND THE REST OF THE G7 MADE A COMMITMENT TO THIS GOAL AT THE 1990 HOUSTON SUMMIT. THIS ISSUE REMAINS THE HIGHEST PRIORITY FOR THE USA DELEGATION - AND IS PERCEIVED TO BE THE ONLY REAL DRAWING CARD FOR PRES BUSH TO COME TO RIO. AMONG G77 DELS, ONLY MALAYSIA AND INDIA REMAIN ADAMANTLY OPPOSED TO LAUNCHING SUCH A CONVENTION - ALTHOUGH BOTH ARE CLEARLY USING IT AS A BARGAINING CHIP IN RETURN FOR ACTION BY DEVELOPED COUNTRIES ON CLIMATE CHANGE AND FINANCIAL RESOURCES. MOST OTHER G77 DELS ARE AGNOSTIC ON THE ISSUE; ALTHOUGH A NEW TREND AT THIS PREPCOM WAS THE DEFINITE INTEREST DISPLAYED BY A NUMBER OF EQUATORIAL AFRICAN STATES, LED BY GABON, IN LAUNCHING SUCH A CONVENTION. UNFORTUNATELY, MALAYSIA HAS POSITIONED ITSELF AS THE G77 LEADER ON THIS ISSUE. GIVEN THE COMPLETELY INTRANSIGENT APPROACH TAKEN BY THEIR DEL AT PREPCOM FOUR, IT IS CLEAR THAT



PAGE NINE EEEU2435 PROTECTED

MALAYSIAN PM MAHATHIR INTENDS TO USE THE FOREST ISSUE IN RIO TO EXTRACT THE MAXIMUM AMOUNT OF POLITICAL ADVANTAGE FROM DEVELOPED COUNTRIES AS POSSIBLE. IF CANADA AND OTHER G7 COUNTRIES ARE TO SUCCEED IN MOBILIZING SUFFICIENT SUPPORT AMONG THE REST OF THE G77 TO LAUNCH A FOREST CONVENTION AFTER RIO, IT IS CLEAR THAT WE WILL HAVE TO FIND A BARGAINING CHIP TO SWING THEIR SUPPORT. IT IS ALSO CLEAR THAT WE WILL NOT SUCCEED IN OBTAINING AGREEMENT ON A FOREST CONVENTION, NEGOTIATIONS ARE COMPLETED ON THE FOREST PRINCIPLES THAT ARE LINKED TO AGENDA 21. DUE TO THE MALAYSIAN DELEGATION, AGAIN, DELS MADE EXTREMELY SLOW PROGRESS IN NEGOTIATING THESE PRINCIPLES IN NEW YORK, AND AT LEAST 25 PERCENT OF THE TEXT - DEALING WITH ALL OF THE ECONOMIC ISSUES - REMAINS BRACKETED. COMPLETING NEGOTIATIONS ON THIS DOCUMENT WILL BE A MAJOR FOCUS OF EFFORT FOR THE CDN DELEGATION IN RIO.

13. DESERTIFICATION: ANOTHER HIGH PROFILE ISSUE, WHICH COULD BE USED AS A BARGAINING CHIP TO MOBILIZE SUPPORT FOR OUR POSITION ON FORESTS, WAS THE INITIATIVE BY THE AFRICAN GROUP AT PREPCOM FOUR TO CALL FOR A CONVENTION ON DESERTIFICATION IN AFRICA. THIS PROPOSAL CAUGHT MOST DONOR COUNTRIES BY SUPRISE AT PREPCOM FOUR, REMAINS BRACKETED IN THE DESERTIFICATION CHAPTER OF AGENDA 21, AND HAS BEEN LEFT FOR FURTHER CONSIDERATION AT RIO. MOST AFRICAN DELS CAN BE COUNTED TO MAKE THIS ISSUE THEIR PRINCIPAL OBJECTIVE AT UNCED, AS A MEANS OF FORCING THE REST OF THE WORLD TO CONSIDER A REGIONAL ISSUE OF CRITICAL INTEREST TO THEM AS A GLOBAL PROBLEM. THROUGH A CONVENTION, THEY HOPE TO SECURE ACCESS TO NEW AND ADDITIONAL RESOURCES FOR DESERTIFICATION PROJECTS FROM THE GLOBAL

ENVIRONMENTAL FACILITY. THE SUBSTANTIVE MERITS OF NEGOTIATING EITHER A GLOBAL CONVENTION ON DESERTS OR REGIONAL ONE FOCUSED ON AFRICA ARE NOT/NOT YET CLEAR; ALTHOUGH SUCH AN APPROACH MIGHT COMPEL A GREATER DEGREE OF COMMITMENT BY THE AFFECTED GOVTS AND GREATER REGIONAL CO-OPERATION THAN HAS BEEN EVIDENT TO DATE. POLITICALLY, HOWEVER, THE ARGUMENTS FOR AGREEING TO A DESERTIFICATION CONVENTION, AS A QUID PRO QUO FOR A FOREST CONVENTION, ARE OBVIOUS. BOTH COULD BE PORTRAYED AS THE NEXT GENERATION OF ENVTL CONVENTIONS, AFTER THE CLIMATE CHANGE AND BIODIVERSITY CONVENTIONS ARE SIGNED, AND PART OF A STEADY PROCESS BY GOVTS TO NEGOTIATE LEGAL INSTRUMENTS TO PROTECT KEY COMPONENTS OF THE BIOSPHERE. FOR ALL THESE REASONS, WE WILL HAVE TO THINK THROUGH OUR POSITION ON THIS ISSUE CAREFULLY IN PREPARATION FOR RIO.

15. TECHNOLOGY TRANSFER: BEYOND THESE SECTORAL ENVT ISSUES, THE KEY CROSS-SECTORAL ISSUES OF THE CONFERENCE WILL ALL BE SUBJECT TO INTENSE NEGOTIATION IN RIO. OF THE FOUR, WE HAVE THE LEAST AMOUNT OF WORK TO DO ON THE ISSUE OF TECHNOLOGY TRANSFER. MOST OF THE DRAFT CHAPTER ON THIS ISSUE WAS NEGOTIATED IN NEW YORK - AND IT SUPPORTS THE APPROACH CANADA SOUGHT TO TAKE, ENCOURAGING GOVTS AND THE PRIVATE SECTOR TO FACILITATE, THROUGH CLEARING HOUSES AND ODA PROGRAMS, WHAT IS ESSENTIALLY A PRIVATE SECTOR ACTIVITY. THE BRACKETED SECTIONS DEAL WITH THE LONG-STANDING IDEOLOGICAL ISSUE OF WHETHER DEVELOPING COUNTRIES SHOULD BE GRANTED QUOTE PREFERENTIAL ACCESS UNQUOTE TO CLEAN ENVTAL TECHNOLOGY, WHILE RECOGNIZING THE NEED TO PROTECT FIRMS INTELLECTUAL PROPERTY RIGHTS.

PAGE ELEVEN EEEU2435 PROTECTED

AS A DEVELOPED COUNTRY NET TECHNOLOGY IMPORTER, WE ARE IN A WEAK POSITION BETWEEN NORTH AND SOUTH ON THIS ISSUES. SINCE THE MAJORITY OF OTHER OECD DELS SEEM MORE INCLINED TO MAKE CONCESSIONS ON THIS POINT - AT LEAST IN TERMS OF LANGUAGE - THAN CANADA, WE WILL NEED TO CAREFULLY REVIEW OUR NEGOTIATING APPROACH TO THIS ISSUE TO ENSURE THAT WE ARE NOT/NOT CAUGHT OUT BY A COMPROMISE STRUCK BETWEEN THE MAJOR TECHNOLOGY PRODUCERS (I.E. THE REST OF THE G7) AND THE G77.

16. INSTITUTIONS: PREPCOM FOUR MADE MAJOR STRIDES ON THE ISSUE OF INSTITUTIONS, (AS DESCRIBED IN PRMNY REFTEL WKGR3452 07APR92) AND HAS PLACED ON THE TABLE TWO BASIC INSTITUTIONAL OPTIONS FOR THE FOLLOW-UP TO UNCED - A NEW SUSTAINABLE DEVELOPMENT COMMISSION OF THE GENERAL ASSEMBLY OR A SUSTAINABLE DEVELOPMENT COMPONENT OF ECOSOC. CANADA WILL HAVE TO COME TO RIO PREPARED TO TILT IN FAVOUR OF ONE OF THESE OPTIONS OR THE OTHER. WE SHOULD ALSO HAVE A POSITION ON COSTA RICAS INITIATIVE - DEVELOPED AT THE INSTIGATION OF MAURICE STRONG - FOR AN INDEPENDENT EARTH COUNCIL OF EMINENT ENVIRONMENTAL EXPERTS, OPERATING OUTSIDE THE UN, TO ASSESS PROGRESS TOWARDS SUSTAINABLE DEVELOPMENT. COSTA RICA WILL BE LOOKING FOR POLITICAL BLESSING FOR THIS INITIATIVE FROM LEADERS IN RIO, IN ORDER TO LEND IT CREDIBILITY. THE POSSIBILITY THAT SELECTED POLITICAL LEADERS WITH SUSTAINABLE DEVT CREDENTIALS COULD BE INVITED TO PARTICIPATE CAN NOT/NOT BE RULED OUT.

17. EARTH CHARTER/RIO DECLARATION: THE MOST INTENSIVE NEGOTIATIONS IN THE WHOLE FIVE WEEKS OF THE PREPCOM FOCUSED AROUND THE EARTH CHARTER - THE SET OF PRINCIPLES INTENDED TO BE THE MISSION

STATEMENT OF UNCED. THE G77 SENSED THAT THIS DOCUMENT WOULD BE OF GREAT SYMBOLIC VALUE TO DEVELOPED COUNTRY DELEGATIONS, AND SOUGHT SUCCESSFULLY TO ENSURE THAT THE TEXT FULLY REFLECTED THE PRIORITY THEY ATTACH TO THEIR RIGHT TO DEVELOPMENT. THROUGH THE INTERVENTION IN THE FINAL THREE DAYS OF TOMMY KOH, A FRAGILE CONSENSUS WAS REACHED AROUND AN UNBRACKETED TEXT, WHICH HAS BEEN SENT TO RIO AS A CHAIRMANS TEXT FOR FURTHER CONSIDERATION. THE FIVE PAGE DOCUMENT CONTAINING A PREAMBLE AND 27 PRINCIPLES THAT FINALLY EMERGED IS A LONG WAY FROM THE SUCCINCT DOCUMENT THAT CANADA SOUGHT; AND WE STATED OUR CONCERNS IN THE FINAL PLENARY THAT IT FAILS TO REFLECT THE INTEGRATION OF ENVIRONMENT AND DEVELOPMENT THAT SHOULD BE THE PURPOSE OF THE CONFERENCE. EVEN THE NAME HAS BEEN CHANGED AT THE INSISTENCE OF THE G77 TO THE RIO DECLARATION ON ENVIRONMENT AND DEVELOPMENT. OTHER DELS ACQUIESCED WHEN THE FINAL PRODUCT CEASED TO RESEMBLE OUR VISION OF AN EARTH CHARTER. NEVERTHELESS, THE EXISTING DRAFT ENSHRINES RECOGNITION OF A NUMBER OF PRINCIPLES WHICH ARE IMPORTANT TO US - SUCH AS THE PRECAUTIONARY PRINCIPLE, PUBLIC PARTICIPATION, RECOGNITION OF INDIGENOUS KNOWLEDGE AND THE NEED FOR ENVIRONMENTAL ASSESSMENT PROCEDURES. THE ENTIRE TEXT IS A PANDORAS BOX WITH A LOOSELY FITTING LID - AND IF ANY DELEGATION MOVES TO RE-OPEN IT IN RIO IN ORDER TO REVISE ONE OR TWO PRINCIPLES, THEY WILL RE-OPEN ARGUMENTS ON THE ENTIRE TEXT.

18. FINANCIAL RESOURCES: THE MAJOR FAILURE OF PREPCOM FOUR WAS THE INABILITY TO REACH AGREEMENT ON A DRAFT CHAPTER OF AGENDA 21 ON FINANCIAL RESOURCES. THE HEAD OF CANDEL, JOHN BELL, CHAIRED INTENSIVE DISCUSSIONS ON THIS ISSUE FOR THE FIRST FOUR WEEKS. ALL

DELEGATIONS ACCEPTED AS A BASIC PREMISE THAT A PACKAGE APPROACH COMBINING EXISTING RESOURCE FLOWS WITH NEW AND ADDITIONAL FUNDS WOULD BE THE BASIS OF THE DEAL; AND ALL DELEGATIONS WERE ABLE TO RALLY AROUND THE CONCEPT OF BUILDING A QUOTE PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT UNQUOTE AS A COMMON OBJECTIVE FOR WHICH FUNDS WOULD BE PROVIDED. NEGOTIATIONS BROKE DOWN INITIALLY OVER THE G77S RELUCTANCE TO COMPLETELY ABANDON THEIR CONCEPT OF A QUOTE GREEN FUND UNQUOTE, WHICH WOULD BE THE MULTI-LATERAL MECHANISMS USED TO PROVIDE ADDITIONAL FUNDS FOR AGENDA 21. THEIR RELUCTANCE TO PART WITH THIS CONCEPT WAS ACCENTUATED BY THEIR (JUSTIFIED) APPREHENSION THAT THE ONLY NEW AND ADDITIONAL MONEY LIKELY TO BE FORTHCOMING WILL BE ONLY FOR AGENDA 21 ISSUES THAT CAN BE JUSTIFIED TO WESTERN DONORS AS ISSUES OF GLOBAL BENEFIT, OR GLOBAL SIGNIFICANCE. BY THE LAST DAY, THE LEADERSHIP OF THE G77 HAD CONCEDED VIRTUALLY ALL OF THEIR EARLIER POSITIONS, AND HAD VIRTUALLY AGREED TO AN AMALGAMATED OECD TEXT. BUT THE NEGOTIATIONS BROKE DOWN OVER AN UNWILLINGNESS BY EC DELS (IN PARTICULAR THE UK, AND FRANCE) TO FIND COMMON GROUND WITH THE LANGUAGE THE G77 HAD PROPOSED ON THE SCOPE AND GOVERNANCE OF THE GEF. AS A RESULT, THE G77 BROKE OFF ALL FURTHER DISCUSSION AND THE PREPCOM TOOK NO DECISION ON THE SUBJECT.

19. CLEARLY IN RIO WE WILL HAVE TO REVISIT THE SAME GROUND - AND COULD PROBABLY BEGIN WITH THE SAME TEXTS AS WE HAD IN PLAY IN NEW YORK. SEVERAL EVENTS BETWEEN NOW AND THEN WILL DETERMINE THE TONE OF NEGOTIATIONS. THE G77 MAY WELL HARDEN THEIR POSITIONS AGAIN AROUND A GREEN FUND AT THE DEVELOPING COUNTRY ENVIRONMENTAL MINISTERIAL IN

KUALA LUMPUR, LATER THIS MONTH. THE GEF PARTICIPANTS MEETING WILL TAKE SOME DECISIONS ON THE FACILITY'S FUTURE SCOPE AND GOVERNANCE, WHICH WILL HAVE A DIRECT IMPACT ON THE ROLE THE GEF IS PERCEIVED TO PLAY AS PART OF THE FINANCIAL PACKAGE FOR FUNDING AGENDA 21. FINALLY, AT THE CONFERENCE ITSELF, DONORS WILL NOT/NOT BE ABLE TO FORESTALL DIRECT QUESTIONS ABOUT THEIR WILLINGNESS, OR THE LACK OF IT, TO COMMIT NEW AND ADDITIONAL RESOURCES FOR FUNDING COMPONENTS OF AGENDA 21. ALTHOUGH RIO IS NOT/NOT SLATED TO BE A PLEDGING CONFERENCE, THE SIZE OF ANY PLEDGES ANNOUNCED WILL HAVE A MATERIAL IMPACT ON THE SUCCESS OF THE NEGOTIATIONS ON FINANCIAL RESOURCES.

20. AGENDA 21: FINALLY, DELEGATIONS IN RIO WILL HAVE TO REVIEW THE IMPLEMENTATION MECHANISMS FOR EACH CHAPTER OF AGENDA 21. THERE ARE SEVERAL ASPECTS TO THIS PROBLEM. FIRST, PREPCOM CHAIRMAN KOH PRESENTED A BRIEF CHAPEAU TO AGENDA 21, WHICH STATED THAT NATIONAL GOVTS HAVE THE FOREMOST RESPONSIBILITY FOR IMPLEMENTING AGENDA 21 AND ENDORSED (AT CANADA'S BEHEST) THE IMPORTANCE OF QUOTE NATIONAL STRATEGIES, PLANS, POLICIES AND PROCESSES UNQUOTE TO ACHIEVE THIS. THIS CHAPEAU COULD BE IMPROVED AND EXPANDED. SECOND, DELS WILL HAVE TO ADDRESS THE QUESTION OF WHICH INTERNATIONAL INSTITUTIONS SHOULD BE ASSIGNED RESPONSIBILITY FOR FOLLOWING-UP THE SPECIFIC CHAPTERS OF AGENDA 21. CANADA REQUESTED THAT SEC GEN STRONG COMPILE A LIST OF ALL THE INSTITUTIONAL RECOMMENDATIONS IN THE OTHER CHAPTERS OF AGENDA 21 (BESIDES THE INSTITUTIONS CHAPTER) TO FACILITATE THIS TASK. FINALLY, DELS WILL HAVE TO FIND SOME MEANS OF DEALING WITH THE UNNEGOTIATED MEANS OF IMPLEMENTATION SECTIONS OF CHAPTER OF AGENDA 21 - WITHOUT HAVING TO DEBATE THE COSTING ESTIMATES. A LOT

OF THIS WORK CAN AND WILL BE REFERRED TO WHATEVER SUSTAINABLE DEVELOPMENT COMMISSION EMERGES FROM UNCED. BUT IN ORDER FOR THE WORK TO DATE ON AGENDA 21 TO HAVE ANY POLITICAL CREDIBILITY WHILE IN RIO, SOME COMMITMENTS WILL HAVE TO BE MADE TO FOLLOW-UP AND IMPLEMENTATION MECHANISMS, AT THE NATIONAL AND INTERNATIONAL LEVELS.

21. CONCLUSION: THROUGH FOUR PREPCOMS OF BUREAUCRATIC AND DIPLOMATIC EFFORT, DELEGATIONS HAVE PRODUCED WORKABLE DRAFTS OF THE TWO BASIC DOCUMENTS EXPECTED TO EMERGE FROM UNCED - NAMELY AGENDA 21 AND THE RIO DECLARATION. WHAT IS NEEDED NOW TO COMPLETE THE TASK IS THE POLITICAL PUSH TO RESOLVE THE HARD ISSUES AND THE POLITICAL COMMITMENT TO FUND THE OUTCOMES. THREE FACTORS, IN PARTICULAR, WILL INFLUENCE TO POLITICAL CLIMATE OF THE CONFERENCE. THE FIRST, IS THE WILLINGNESS OF PRES BUSH TO ATTEND. DESPITE THE FACT THAT OVER 100 OTHER LEADERS ARE NOW PLANNING TO COME, THE PRESENCE OF THE PRESIDENT OF THE USA IS NOW BEING TAKEN AS A SINE QUA NON FOR A SUBSTANTIVE SUMMIT BY THE INTL MEDIA - AND THE USA NGOS THAT FEED THEM. THE SECOND FACTOR WILL BE THE FUNDING COMMITMENTS THAT ALL DONOR GOVTS ARE PREPARED TO MAKE. THE USA DEL IS PARTICULARLY LAGGARD IN THIS RESPECT - AND THE PRESIDENT COULD MAKE A SIGNIFICANT IMPACT ON THE CONFERENCE, EVEN IF HE CHOSE NOT/NOT TO ATTEND, IF HE ANNOUNCED A SUBSTANTIAL FINANCIAL COMMITMENT TO PROVIDE NEW AND ADDITIONAL FUNDING THROUGH THE GEF FOR THE CONVENTIONS, AND FOR SPECIFIC AGENDA 21 ACTIVITIES. HOWEVER, THE MOST IMPORTANT FACTOR FOR THE POLITICAL SUCCESS OF UNCED WILL BE WHETHER LEADERS HAVE A CLIMATE CHANGE CONVENTION TO SIGN. CLIMATE

PAGE SIXTEEN EEEU2435 PROTECTED

CHANGE IS THE ONE ISSUE ON THE TABLE AT UNCED IN WHICH DEVELOPED COUNTRIES WILL HAVE TO BEAR THE BRUNT OF THE ADJUSTMENT. OUR SUCCESS IN NEGOTIATING SUCH A CONVENTION WILL BE TAKEN AS THE MEASURE, BY OUR PUBLICS AND BY THE DEVELOPING COUNTRIES, OF DEVELOPED COUNTRIES WILLINGNESS TO MAKE ECONOMIC SACRIFICES TO ACHIEVE SUSTAINABLE DEVELOPMENT. BY THE TIME LEADERS REACH RIO, ALL OF THE SEPARATE ENVIRONMENTAL TRACKS WE HAVE PURSUED OVER THE LAST TWO YEARS WILL CONVERGE IN ONE FORUM, IN WHICH OUR GOVTS COMMITMENTS TO ACTION WILL BE JUDGED. THESE FACTORS WILL DETERMINE WHETHER UNCED WILL BE A POLITICAL SUCCESS.



Form 675 G (5)  
PROCÉDÉ *Piasdex*® - PROCESS  
MONTREAL - TORONTO

## SUMMARIES OF PREPCOM IV REPORTS

### PROTECTION OF THE ATMOSPHERE

Negotiations of this chapter of Agenda 21 at PrepComm IV were based on a text introduced by the G-77 during the opening day of negotiations. This negotiating text was essentially a modification of the Secretariat's document PC/100/Add.14 and divided the chapter into four programme areas: a) addressing the uncertainties; b) promoting sustainable development through: energy development, efficiency, and consumption; transportation; industrial development; and terrestrial and marine resource development and land-use; c) transboundary atmosphere pollution; and d) stratospheric ozone depletion. The G-77 modified text was an attempt to eliminate those objectives and activities which tended to duplicate, preempt or prejudice the negotiations within the INC-Climate Change. The segregation of transboundary atmosphere pollution and stratospheric ozone depletion from promoting sustainable development was questioned by several delegations including Canada. However, in the spirit of compromise this text was accepted as the basis of further negotiations.

Negotiations were difficult with several delegations trying to introduce text that reflected their positions on how to deal with atmospheric issues (e.g., economic instruments and regulatory measures). Text that appeared to duplicate or prejudice the INC process was either rejected or made more general in terms of the broader atmospheric issues rather than focusing on just climate change or GHG emissions. The unwillingness of some G-77 countries to accept the terms and conditions of the Montreal Protocol caused some difficulties and considerably weakened this programme area.

During the Plenary's deliberations on this chapter, Saudi Arabia, Kuwait, and Yemen introduced a number of additions and suggested deletions to the negotiated text which were accepted by the Chair (i.e. introduction of additional square brackets). In addition, they placed the entire text in square brackets stating that the protection of the atmosphere chapter in its entirety duplicated, preempted and prejudged the INC-Climate Change negotiations and that this chapter would have to be renegotiated in Rio after the INC had completed its negotiations. This chapter, therefore, remains in a state of flux and will need to be further negotiated prior to including it in Agenda 21.

## INTEGRATED APPROACH TO PLANNING AND MANAGEMENT OF LAND RESOURCES

Negotiations proceeded relatively smoothly on the basis of the Secretariat's document PC/100/Add.15 as this chapter had been the subject of negotiations at PrepComm III. The resulting PrepComm IV decision document contains no bracketed text (other than that within the Means of Implementation). The majority of suggested changes during the negotiations at this session were directed at providing a more precise focus to the objectives and activities; more precisely identifying timeframes; providing the required flexibility to allow implementation in the variety of political, economic and social circumstances; and encouraging a cooperative approach involving local communities and the private sector in the decision-making process.

### DEFORESTATION

The negotiations on Agenda 21 for forests at PrepCom IV were generally satisfactory to Canada, although somewhat disappointing in terms of the lack of vision of the final text. The main Canadian objectives of preserving mention of the need to negotiate an International Convention for Forests and to produce criteria for sustainable development of forests were maintained. The final text does not contain wording which for policy or technical reasons is objectionable to Canada. The negotiated text will be subject to final agreement at the Conference level on financial resources, technology transfer and institutional arrangements.

### GUIDING PRINCIPLES FOR FORESTS

Canada has been at the forefront of the movement to draft Guiding Principles for Forests from the outset of the UNCED process. In preparation for the fourth PrepCom, Forestry Canada had undertaken a thorough national consultation process to formulate the Canadian position. Unfortunately however, the negotiations on Forest Guiding Principles at PrepCom IV were to make relatively little use of the extensive preparatory work done in Canada.

Furthermore, to the disappointment of Canada and most other nations, what were expected to be the final series of negotiations proved to be a difficult and largely inconclusive series of exchanges. Negotiations quickly bogged down into a deeply-rooted political debate between North and South. The minority of delegations within both developed and developing camps which assumed extreme

positions succeeded in transforming the discussions into a highly-polarized debate for much of the negotiations. The moderates who made up the majority in both North and South were only able to regain the upper hand toward the end of the negotiations, when insufficient time remained to conclude.

At the end of PrepCom IV, at least 25 percent of the text still remained to be negotiated. In addition, delegates left the final PrepCom without defining a procedure to complete negotiation of the text and therefore some mechanism to wrap-up negotiations will have to be determined during the intersessional period.

#### DESERTIFICATION

The issue of desertification was known at the outset of PrepCom IV to be of great interest to the African nations, which considered that the subject had received inadequate attention at previous PrepComs. The African Group demonstrated the importance which its members attached to the item by submitting a series of revisions to the Secretariat document. The African text, which contained a wide range of largely non-controversial, well-considered, technically-substantive additions, was warmly received by all delegations and quickly became the focus of the debate on desertification.

While the main body of the report, including the African proposals, was adopted with relative ease, the debate on desertification was marked with one controversy which developed into one of the primary sticking-points of PrepCom IV: a Convention on Desertification. An accommodation was found to address the concern of other countries affected by desertification, by expanding the original African proposal of a convention for Africa to a global convention with regional protocols, with priority to Africa. However, throughout the proceedings of the PrepCom, most donor nations were unconvinced that a convention was the sole option for combatting desertification, as strongly asserted by the African Group. Despite numerous attempts to reach consensus, lack of flexibility on the part of African Group and continuing scepticism within the donor delegations resulted in an impasse. The June Rio Conference will therefore be considering a bracketed section within the Desertification Agenda 21 item proposing a global convention for desertification.

## MANAGING FRAGILE ECOSYSTEMS: SUSTAINABLE MOUNTAIN DEVELOPMENT

Sustainable mountain development was not an overly contentious chapter and a consensus decision containing no square brackets resulted from the negotiations. During negotiations Austria introduced the concept of developing appropriate regional instruments including legal and other instruments aimed at the protection of fragile mountain ecosystems. The concepts of diversification of mountain economies and involving local communities in the decision-making process were strengthened through the introduction of appropriate language.

### SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT

The adopted decision for this chapter of Agenda 21 is a consensus document with square brackets around those issues still under negotiations within the biodiversity convention and around unresolved issues within the Means of Implementation. The Secretariat's document PC/100/Add.19 was used as the basis of negotiation. The only contentious issue was the agriculture and trade paragraph which was resolved through some corridor discussions following consideration of the broader trade issue by the Plenary. Deliberations on the programme areas which dealt with plant and animal genetic resources although delayed until resolution of the biodiversity and biotechnology chapters, did result in a consensus text with only square brackets around the phrase "fair and equitable" sharing.

A new programme area on the evaluation of the effects on ultra-violet radiation on agriculture was added to the original list by Argentina during the first day of negotiations.

### CONSERVATION OF BIOLOGICAL DIVERSITY

Negotiations began with many delegations expressing concern that the Secretariat's document PC/100/Add.20 duplicated and prejudged the deliberations under way within the INC-Biodiversity. It was decided that negotiation would take place on the basis of a Swedish proposal along with text proposed by the EC. The Swedish proposal was the result of limited negotiations in the corridor prior to the beginning of formal negotiations. The major contentious issues were related to those that touched on areas yet still unresolved within the biodiversity convention negotiations.

This chapter is comprised of one programme area -

Conservation of biological diversity - and complements many of the proposals currently part of the convention. Some phrases and paragraphs remain in square brackets. However, except for those within the means of implementation, these are related to the subjects under negotiations within the INC-Biodiversity. These bracketed phrases should be resolved following agreement within the convention negotiations.

The remaining bracketed areas are related to "fair and equitable" sharing, the concept of the "country of origin", technology transfer, and the concept of governments undertaking the proposed activities with the support, "where necessary" of indigenous people and their communities, NGOs and other groups, etc.

#### ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY

Negotiations on this chapter of Agenda 21 were based on the Secretariat's prepared text PC/100/Add.27. The major contentious issues during negotiations were related to the degree to which safety should be the emphasis of the chapter and whether there should be principles or guidelines governing biotechnology use; including liability and compensation for damages caused through the application of biotechnology; the over specificity of some of the activities; and the specific reference to fertility-related drugs and technologies.

The adopted text contains some phrases and subparagraphs in square brackets related to the contentious issues mentioned above. The issue of whether the use of biotechnology should be governed by internationally agreed principles or whether there is a need for a legally-binding instrument/code of contact will require further negotiations and possibly ministerial intervention if an effective resolution can not be found. The references to liability and compensation remains in square brackets and will also require further negotiations. Both these issues will require some refocusing if we are to achieve resolution at UNCED as position on both sides are well entrenched.

The over-specificity of some of the activities was dealt with through negotiations at PrepComm IV and the fertility-related subparagraph should resolve itself prior to Rio.

OCEANS

The Oceans chapter of Agenda 21 is one of the most complex and negotiated texts of the UNCED preparatory process. Unlike many other chapters, it began to take shape relatively early, with intense negotiations commencing at PrepCom III and continuing right up to the last day of PrepCom IV. Although very much a "negotiated text," the Oceans chapter drew on the intelligent and energetic efforts of the Working Party (a group of experts assembled by the UNCED Secretariat), various UN agencies (including UNEP, IMO, UNESCO, and the recently-disbanded UN Office of Ocean Affairs and Law of the Sea), and UNCED's own talented staff (notably Alicia Barcenas).

Canada's objectives were largely achieved. The delegation actively participated in formal and informal negotiations shaping all seven sections of the chapter. Some sections are going to UNCED with square brackets: a) those pertaining to means of implementation (financial resources and technology) -- as with all chapters of Agenda 21 -- which will be addressed once there is agreement on these key cross-sectoral issues; and b) those pertaining to an issue of fundamental Canadian interest -- the paragraphs in the high seas and exclusive economic zones (EEZs) sections dealing with straddling stocks. Also bracketed at New Zealand's request is language pertaining to highly migratory species, and, at the European Community's request, language on access to surplus stocks.

FRESHWATER

PrepCom IV agreed a lengthy and comprehensive text with square brackets on the sections dealing with financial and technology resources, pending decisions on these core issues in the wider UNCED debate; and on the Introduction and General Objectives sections, which await a decision in Rio whether these and other similar paragraphs in other sectoral chapters will be retained or deleted.

Canada's objectives were largely achieved. Although the Dublin Guiding Principles have not been incorporated verbatim, they are well reflected in the Agenda 21 text together with the approaches defined in the Dublin Conference report. No new institutional arrangements were recommended; what must now be determined is how the overall UNCED follow-up mechanism can best take up the need to see that the actions outlined in Agenda 21 are implemented.

### TOXIC CHEMICALS

PrepCom IV agreed a comprehensive text on Toxic Chemicals, with square brackets only on the financial and technology transfer aspects pending resolution in the wider UNCED debate. All Canadian objectives were met, in particular the key objective of deleting a specific call for the banning of asbestos and organohalogenes; and recognition that various management tools are included in the life-cycle management approach in addition to phase-out and banning.

The chapter is a considerable advancement for international initiatives for management of toxic chemicals.

### HAZARDOUS WASTES

The Hazardous Waste chapter of Agenda 21 adopted at PrepCom IV is a reasonable text which meets all Canadian objectives. Proposals for self-sufficiency in management of hazardous wastes within the country of origin were softened to allow for the option of regionally-shared facilities. The text now includes provisions dealing with development of control procedures for the transboundary movement of hazardous wastes destined for recovery operations. The adopted chapter is compatible with current international work, notably in UNEP and the OECD, and with Canadian strategies. Finalisation of the Export and Import regulations will allow Canada to ratify the Basel Convention, as called for in the Agenda 21 chapter.

The square brackets remaining in the chapter are on the text dealing with financial resources and technology aspects, awaiting resolution in the broader UNCED debate; a reference to the European Community, pending a decision on its status vis-à-vis governments; and a reference to military establishments.

### SOLID WASTE AND SEWAGE

PrepCom IV adopted a reasonable text on solid waste and sewage, following fairly straightforward negotiations. The document is an important undertaking for industrialised countries; the degree to which developing countries will be able to meet the goals established will depend to a great extent on the level of assistance from UN agencies and bilateral donors. Linking waste and consumption patterns should move the issue forward and benefit the environment as a whole.

Canada achieved its objectives, notably inclusion of an



amendment which recognises that the transboundary movement of solid wastes should be allowed for environmentally sound reasons. Future work in Canada should focus on liaison with provincial authorities, given the shared jurisdictions in this area.

#### RADIOACTIVE WASTES

The stalemate at the end of PrepCom III as to whether there would even be an Agenda 21 chapter on Radioactive Waste was successfully overcome by agreement, with the exception of one paragraph, on a relatively neutral text. The unresolved issue deals with the disposal of radioactive waste near the marine environment.

Canada achieved its objectives for this chapter. The text does not pre-empt the work being undertaken in other international fora, including the IAEA and the London Dumping Convention. It does not refer specifically to transmutation, nor does it call for the "prevention" of radioactive waste.

#### THE EARTH CHARTER\RIO DECLARATION ON ENVIRONMENT AND DEVELOPMENT

Countries, such as Canada, which have been promoting the concept of a concise, short, positive, forward looking, inspirational text as the outcome of the negotiations on the Earth Charter (now called the Rio Declaration) are not entirely satisfied with the draft text of the Rio Declaration. This text, however, may very well be the best we can accomplish in the present circumstances. The level of common understanding among countries is not sufficient at this time to arrive at the inspirational Earth Charter we were hoping for.

The draft Rio Declaration on Environment and Development is a chair's text of five and half pages composed of a Preamble and 27 Principles drafted along the lines of a United Nations second Committee resolution. The Declaration represents a rapprochement of extremely divergent views on questions that are substantially difficult and politically sensitive. It was agreed at the Plenary Session, in response to a plea made by the Chairman of PrepCom IV, to transmit the text to Rio, without brackets, for further consideration and finalization.

This text is an extremely fragile construct. General consensus has been extorted from delegations by Tommy Koh. It is not the preferred text of any country, each of them

being attached to one or more principles and each of them having difficulties with one or more principles.

Between now and Rio, we will evaluate the bottom line need for modifications to the text, consult with other countries and assess the likelihood of arriving at a better text taking into consideration that the alternative "better no declaration than a mediocre declaration" is not an option.

#### NATIONAL MECHANISMS AND INTERNATIONAL COOPERATION FOR CAPACITY-BUILDING

The final decision document on capacity building was adopted unanimously early in the last week of the PrepCom. The chapter places emphasis on the prime responsibility of national governments with respect to endogenous capacity building. The overall objective of the chapter is to improve national, subregional and regional capabilities including those of NGOs. The UNDP is identified as the prime multilateral agency to coordinate capacity building activities but the role of specialized agencies especially UNEP, regional and non-government organizations is also recognized. The UNDP is urged to strengthen its regional capacity to enable it to more effectively carry out this role.

The chapter recommends that countries establish a coordinating committee with assistance from UNDP and UNEP to develop a "country driven participatory and sustainable development strategy" based on the experience of the country reports. All the main Canadian objectives were met although the chapter remains slightly disjointed and could be stronger with respect to calling for more coordination within the UN system and at the regional level. The chapter has been strengthened in terms of clarifying the respective roles of UNDP and UNEP, in pointing out the need for national sustainable development strategies and in emphasizing the importance of involving regional organizations and NGOs.

#### INSTITUTIONS

Thanks to skilful management by the Malaysian coordinator (Ambassador Razali), PrepCom IV exceeded expectations in terms of producing a clear text on institutions for onward transmission to Rio de Janeiro. Most of the Agenda 21 chapter has been agreed to, with two major options for the UN intergovernmental follow-up mechanism. These are: a) to establish a Sustainable Development Commission reporting to both the UN General Assembly and ECOSOC; or b) to use the

ECOSOC itself, rather than setting up a new forum. Delegations also agreed that the follow-up mechanism should be supported by a "highly qualified and competent secretariat support structure." The Secretary-General is requested to report on the staffing implications as soon as practicable.

Delegations also clarified the function of the follow-up mechanism; the role of key UN agencies (in particular UNEP and UNDP) in implementing the outcomes of UNCED and their cooperation with other international organizations; regional and sub-regional cooperation and coordination; national implementation activities (including the preparation of sustainable development plans and reports); and the participation of non-governmental organizations (NGOs) in the relevant UN bodies dealing with sustainable development.

Canada's objectives were achieved. The listing of the two options for the UNCED follow-up mechanism allow for further consideration of optimal UN institutional arrangements for dealing with sustainable development. With respect to other issues, such as rational use of resources, linkages among the bodies dealing with sustainable development issues at all levels, national implementation, and the role of NGOs, virtually all of our proposals were incorporated in the final text. It is expected that all outstanding issues will be resolved in Rio de Janeiro, with detailed modalities for the UN follow-up to be finalized at UNGA 47.

#### ROLE OF REGIONAL ORGANIZATIONS AND COOPERATION

Following one negotiating session, the Agenda 21 Chapter on Regional Organizations and Cooperation was eliminated and its main contents incorporated into the Agenda 21 chapter on International Institutional Arrangements. The result is a section on "Regional and sub-regional cooperation and implementation", seven paragraphs in length, addressing: (i) the promotion of regional and sub-regional capacity building; the integration of environmental concerns in regional and sub-regional development policies; and, regional and sub-regional cooperation regarding transboundary issues related to sustainable development. The emphasis is on the role of UN regional economic commissions, regional economic and technical cooperation organizations, and regional development banks.

INTERNATIONAL LEGAL INSTRUMENTS AND MECHANISMS

This issue in the mind of many countries, including Canada, was a simple, straightforward issue of marginal importance. Negotiations based on the text prepared by the Secretariat prior to the PrepCom would have been simple.

However, the G-77 produced their own version of the document and insisted that their document serve as the basis for negotiation. This useless procedural debate, in addition to the differences that emerged among developed countries on the issues of dispute settlement and the proposal for a convention, unduly complicated and extended the negotiations and made it difficult to arrive at an acceptable text.

Negotiations were carried out on the basis of a text, prepared by the vice-chair of the working group, which was a blend of the original Secretariat text, comments and additions proposed by delegations, and elements of the G-77 text. At the end of the fourth week of PrepCom IV, the negotiated text was left with many important brackets. Fortunately many of these got deleted by the small drafting group which met during the last week of the PrepCom.

The document agreed to during the Plenary session still contains some brackets, some of which may prove difficult to negotiate. Those refers to trade barriers; [compliance] in addition to implementation mechanisms; dispute [prevention] in addition to dispute settlement, technological assistance [on fair and equitable terms], the development of a "safety nuclear convention" and references to the role of the International Court of Justice for dispute settlement.

INTERNATIONAL COOPERATION TO ACCELERATE  
SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES,  
AND RELATED DOMESTIC POLICIES

The document on the table at the start of Prepcom IV (A/CONF.151/PC/100/Add.3) had not been discussed at Prepcom III. Rather, it was a document which had been written by the UNCED secretariat based on the view that the four issues contained in the paper were important enough to merit a separate Agenda 21 chapter. However, the four areas covered under this chapter are all being handled elsewhere and hence an implicit consensus developed at Prepcom IV that UNCED should give some consideration to these issues and highlight their importance for successfully achieving the goal of sustainable development but refrain from expending scarce resources on issues which were not high priority for UNCED.

The resulting section on promoting development through trade

supports market-based approaches. In discussing the role of international commodity agreements it calls for market intelligence and technical activities and refrains from calling for a return to discredited efforts at market manipulation via the use of buffer stocks and similar activities. Trade and the environment is left to the appropriate international institutions "in accordance with their respective mandates and competences." In Canada's view, this is predominately the GATT. There are no brackets in either of these sections.

There are three bracketed passages in the section on providing adequate financial resources to developing countries. These brackets remain pending the results at Rio of the negotiations on financial resources. The rest of this section endorses ongoing efforts to deal with the debt problem and to mobilise resources for sustainable development. Finally, the section on encouraging economic policies conducive to sustainable development has one bracketed passage which will need to be resolved at Rio. This section strongly emphasizes the use of market-based approaches for achieving its objectives.

All subsections on financing and cost-evaluation have been removed from the text.

#### COMBATING POVERTY

As with other chapters, CANZ prepared a joint intervention for changes to the poverty chapter. These proposals for amendments to the text drew heavily on the Canadian brief and most were integrated into the final poverty chapter. In some cases they were simplified, in particular with reference to the role of a possible poverty focal point, as negotiators were reluctant to adopt detailed mandates into the text. Nevertheless reference remains to a focal point for information exchange and the formulation and implementation of replicable pilot projects to combat poverty. The text also makes reference to the need to give priority to poverty eradication in the institutional arrangements for UNCED follow-up.

The text has been considerably strengthened with respect to the empowering of local communities, the role of women and the responsibility of national governments to put in place relevant policies to eradicate poverty. The link between macro-economic and social policy and micro-community level activities and institutions has been clearly established in the final text. Although the text is still poorly organized, all the essential concepts have been included. The international NGO working group on poverty and affluence had

a strong influence on the final text. Their work was timely, reached all major delegation groupings and was presented in a form that was easily accessible to negotiators. Among the plenary group of issues, this was the area where the NGO/government working relationship was the most productive.

#### CHANGING CONSUMPTION PATTERNS

Canadian objectives were largely met in the development of the final version of the chapter on consumption. This was an area where Canada was able to play a positive role with respect to the proposed chapter by strongly supporting its intent in our opening intervention on behalf of CANZ (Canada, Australia and New Zealand). Initially the USA put square brackets around Programme Area A (focusing on unsustainable patterns of production and consumption) but after several negotiating sessions, all square brackets were removed with little dilution of the text, with the exception of two introductory paragraphs for which the USA and G77 could not find consensus language.

While the chapter could be improved considerably, it is a good first commitment by developed countries to take the leadership in achieving sustainable consumption patterns. Follow-up at the international level on the recommendations proposed in the chapter will be necessary and has not yet been clearly assigned.

#### DEMOGRAPHIC DYNAMICS

Negotiations on the population chapter were difficult as was anticipated. Discussions among delegates were confused by interference from the UNCED secretariat consultant and by overzealous lobbying on the part of the NGO women's caucus. In the end consensus was finally reached with the G77 removing square brackets from the paragraphs referring to community based programmes. While the text still has too great an emphasis on research, it has been considerably strengthened in particular with respect to the role of women and the importance of addressing the economic and social status of women in developing effective population programmes. The chapter recommends that countries report progress on implementation to the 1994 Conference on Population and Development and that UNFPA have prime responsibility for following up on this section of Agenda 21.

### PROTECTION AND PROMOTION OF HUMAN HEALTH

Final discussions on the health chapter erupted in heated debate over two paragraphs on contraception. After a long debate, compromise language was adopted which included taking into account cultural considerations. Overall the chapter has been improved bringing targets into line with those adopted in other fora and setting them as goals to be considered for implementation by countries with adaptation to each country in terms of phasing, priorities and availability of resources. The activities section on vulnerable groups still misses the mark with respect to women. Negotiations on this chapter were extremely useful in raising the profile of the issue of health within UNCED and in building north/south cooperation. The chapter was adopted with virtually no brackets.

### HUMAN SETTLEMENTS

Discussions on the Human Settlements chapter received a relative ease of consensus from developed and developing countries in both plenary and contact groups. The agreed upon issues included expanding the text of the document to apply to all countries, and increasing the emphasis on both the role of local authorities and improving the capacity of local governments. Other underlying issues which were strengthened throughout the document were the need for increased participation of the private sector, NGOs, women, youth and indigenous people in the planning, development and implementation of human settlements initiatives, and the need for increased coordination among relevant UN agencies and international organizations. Countries were also asked to develop priorities among the eight program areas in accordance with their national plans and objectives.

A recommendation to establish mechanisms with the assistance, where appropriate, of relevant international agencies to mobilize resources for local initiatives for improvements in environmental quality was also added to the text.

### INTEGRATION OF ENVIRONMENT AND DEVELOPMENT IN DECISION- MAKING

This document is bracketless, with exception of the financing and institutional questions, to be resolved in Rio. Canada was very active and maintained a spirit of compromise throughout the negotiations. All key Canadian proposals were accepted and modifications to the rest of the text were generally consistent with current Canadian

positions. Where possible, references to national governments were substituted for countries so as to recognize jurisdictional considerations in countries such as Canada.

#### FINANCIAL RESOURCES

Despite five weeks of intensive negotiations in New York, no final decision was reached at PrepCom IV on the issue of financial resources, and the entire issue has been left to UNCED to resolve. While this outcome met a number of our minimal procedural objectives, it did not meet our aims for a substantive result.

Nevertheless, along the way, consensus was achieved on several points. Delegations agreed that the financial resources issue should be handled as a chapter of Agenda 21 - and it should focus on the funding of Agenda 21, rather than conventions. Delegations agreed that a package approach would be needed, identifying a variety of potential sources and channels for funding. All delegations accepted the concept that new and additional resources would be required - at least for problems of global significance. And all agreed that the goal of such funding would be to build "partnerships for sustainable development".

The major points of contention in Rio will likely be: whether new and additional resources should be provided for the incremental costs of implementing Agenda 21; the concept of a multilateral separate fund for Agenda 21; the possibility of expanding the scope of the GEF; the real volume of the IDA replenishment; timetables for meeting ODA targets; the role of national sustainable development strategies as a basis for coordinating domestic and international funding for Agenda 21; and the potential eligibility of economies in transition for new and additional resources for Agenda 21.

#### TRANSFER OF TECHNOLOGY

Negotiations on the transfer of technology chapter continued until Thursday noon when it was clear that no further progress could be made in reaching a bracket free text. Despite the final failure to reach consensus, the text is now largely without brackets except for the three paragraphs referring to access and transfer on concessional and preferential terms and compulsory acquisition of technology. The issue of environmentally safe and sound technologies has also not been resolved. After the initial text tabled on Wednesday by the USA supported by the EC and CANZ, the G77



were unable to reach agreement to accept the text. Subsequently on Thursday the USA hardened their position by placing round brackets around the phrase in dispute, "concessional and preferential".

Negotiations ended with a bitter personal exchange between Qureshi the G77 negotiator and Maseirik, the EC negotiator, which is reflected in the fact that the final document contains four different sets of language for the title. Despite this sour note in the final hour of negotiations, thanks to patient and optimistic chairing by Norwegian ambassador Ultheim the text is relatively clean. The text was adopted by the plenary on Friday with brackets on paragraphs 9, 13 and 20, e) ii). As it stands all of paragraph 13 remains in square brackets which were added by the USA in plenary; within paragraph 13 the comma deemed essential by the USA, EC and Canada and opposed by the G77 also remains in square brackets.

#### SCIENCE FOR SUSTAINABLE DEVELOPMENT

The science chapter was adopted early in the final week of the PrepCom. Canadian interventions which had been integrated into the final text helped to emphasize the need for a stronger interdisciplinary approach ensuring that social sciences and humanities were incorporated into scientific objectives. Canadian language was adopted in programme area B, 'Enhancing Scientific Understanding' to help clarify the objectives of that programme area.

The final text emphasizes broad principles for scientific cooperation, focuses on the strengthening of current systems and institutions and avoids mention of unrealistic targets. As such it largely meets the Canadian objectives. The chapter remains rather unfocussed but does cover all major issues and areas related to the strengthening of scientific capacity and cooperation. The financial sections were not negotiated and will have to be discussed in Rio. It is not clear from the chapter, however, how it will be followed up within Agenda 21.

#### ENVIRONMENTAL EDUCATION, PUBLIC AWARENESS AND TRAINING

As with most other chapters of Agenda 21, Canada cooperated with New Zealand and Australia to develop a joint position on education. We introduced language to strengthen the text with respect to women and girl children, made proposals to place more emphasis on non-formal and community-based education and proposed that the text be more focused and more oriented towards the sharing of materials, resources

and programmes within and among countries. With the exception of our attempts to focus the text and develop priorities, the proposals put forward by CANZ were all integrated into the final version of the chapter.

We did not manage to have references to Eco-Ed and the Halifax Declaration on the role of universities in sustainable development included in the text as it was agreed to remove all references to conferences. The only exceptions were the Tbilisi Intergovernmental Conference on Environmental Education (1977) and the World conference on Education for All in Jomtien, Thailand (1990). We did not integrate the concept of environmental citizenship into the text as it was a new concept, not well understood by delegations and other delegates were unwilling to take on new ideas at this stage in the preparatory process. In every other respect we succeeded in meeting the objectives set out in the Canadian brief.

#### INFORMATION FOR DECISION-MAKING

Decision document L.63 was adopted by the PrepCom rather quickly, with brackets remaining only around the financing and technology transfer issues. The paper addresses information requirements for sustainable development at two levels: Establishment of Data Bases; and Improved Access to them for Developing Countries.

The focus of the former is directed on expanding the capabilities of international organizations such as UNEP, and EARTHWATCH etc. There are also references to similar developments at local levels, including the incorporation of traditional and indigenous knowledge.

The other programme area similarly emphasises the role of international organizations. In these cases, there was reluctance by developing countries to adequately acknowledge the role of the private sector as a repository of useful information on which they could draw.

#### GLOBAL ACTION FOR WOMEN TOWARDS SUSTAINABLE AND EQUITABLE DEVELOPMENT

The Women's chapter of Agenda 21 was considerably strengthened due to strong support for the chapter by key delegations including Canada, the USA, the Nordic countries, Australia, and New Zealand and, until the final week of the conference, by effective, timely and strong lobbying by the NGO women's caucus. The final stages of negotiation were marred by overzealous lobbying which resulted in breaking

consensus on language related to contraception services and information. As a result the relevant paragraphs were placed in square brackets by several G77 countries who felt that the language did not take adequate account of collective rights as opposed to individual rights. Despite this, the text contains solid statements on violence against women and the need to implement measures to increase the proportion of women involved as decision makers at all levels. However, the chapter on institutional follow-up makes little reference to the key role that women must play in the implementation of Agenda 21. Work needs to be done to ensure that the final Agenda 21 document rectifies this lacuna with practical and practicable language.

MAJOR GROUPS: CHILDREN AND YOUTH IN SUSTAINABLE  
DEVELOPMENT

All Canadian objectives relating to this chapter have been met. Broad language has been included calling for youth involvement at all levels of government and in all UN agencies; reduction of youth unemployment, particularly where high in comparison with overall unemployment; and increased access to education. References to the development of an International Youth Advisory Council were replaced by wording dealing with the administration and promotion of the existing UN Youth Fund. New wording allows for flexibility in establishing national mechanisms for involving youth in environment and development decision-making. Community level action has been strengthened by language emphasizing access to information and consultation with youth by all levels of government regarding implementation of Agenda 21.

A major change addition to the text is a new program area proposed by Sweden to ensure that the rights and interests of children are taken into account in the preparatory process and beyond.

L. 72, in particular the objectives section, contains much of the language introduced by CANZ, which incorporated most of the Canadian brief as well as many amendments proposed by a youth working group at the PrepCom. Ms. Erin Hannah, a member of the youth working group and a youth representative on Candel introduced many of the changes in Plenary on behalf of CANZ.

MAJOR GROUPS: RECOGNISING AND STRENGTHENING THE ROLE OF  
INDIGENOUS PEOPLE AND THEIR COMMUNITIES

Agreement was reached on an overall text. At the initial

plenary discussion, divergent views were evident on nearly all portions of the chapter and so it was referred to a contact group for further consideration. There were lengthy discussions on terminology, particularly on "indigenous people(s)" and territories. Several new objectives appear in L. 72 and the wording of others has been broadened. One objective now talks of protection from activities which are environmentally unsound "or which the indigenous people concerned consider to be socially and culturally inappropriate."

Canadian objectives in general have been met, since the text recognizes the role which indigenous people can play in sustainable development efforts, and includes particular references to the contributions of indigenous women.

MAJOR GROUPS: STRENGTHENING THE ROLE OF NON-GOVERNMENTAL  
ORGANIZATIONS: PARTNERS FOR SUSTAINABLE  
DEVELOPMENT

Many of the changes to the text of Add. 13 were based on wording changes submitted by NGOs at the PrepCom and incorporated in amendments tabled by delegations. The objective to establish a government NGO dialogue by 1995 has been strengthened by specifying that this take place in all countries. In some cases, target dates have been removed and specific wording changed. However, the amended text is general enough to accommodate broad NGO participation in the implementation of Agenda 21 at all levels without being prescriptive, and hence restrictive.

The original text of this chapter in Add. 13 had been drafted in close consultation with the traditional grass roots, community based organizations involved in environment and development issues on a voluntary basis. In order to ensure that all societal groups are able to participate in UN activities to implement Agenda 21, Canada proposed an amendment to the chapeau of Add. 13 stating that any policies and rules affecting access to, and participation in UN activities to implement Agenda 21 must apply equally to all major groups. This proposal was accepted.

MAJOR GROUPS: LOCAL AUTHORITIES INITIATIVES IN SUPPORT  
OF AGENDA 21

Contact Group and Plenary discussions on this chapter proceeded rapidly. This was one of the few areas that all countries seemed to agree should be strengthened both in other chapters of Agenda 21 and through programs and

activities being directed through recommendations of this chapter. Particular emphasis was placed on increasing the capacity and participation of local authorities throughout the chapter on Human Settlements (Add.7).

Mr. Harvey Ruvlin, a representative of the International Cities Association addressed the informal Plenary on this issue on behalf of local authorities. in the informal plenary on this issue. Other representatives of international local authority groups were present at PrepCom and spoke to delegates regarding current international initiatives at the local level being directed to UNCED. Representatives of the International Cities Association proposed two amendments to the text of Add.13, one of which was incorporated into L. 72.

A report from a meeting of International Associations of Cities and Local Authorities held in Rio in January was also available to all delegates. This report included a Common Declaration on Behalf of the World's Cities and Local Authorities which will be adopted at the World Urban Forum in Curitiba, Brazil immediately prior to UNCED. Declarations from the World Cities and their Environment Congress (Toronto), the 5 City Consultation Project (CMHC/CIDA/EA), and the 3rd Summit Conference of Major Cities of the World (Montreal) formed a base for this common declaration.

CMHC, CIDA, and Environment Canada are interested in continued support to efforts which support human settlements initiatives in general and in particular, municipally based activities. Followup leading to UNCED will include the identification of specific Canadian initiatives related directly to the recommendations of this document.

MAJOR GROUPS: STRENGTHENING THE ROLE OF WORKERS AND  
THEIR TRADE UNIONS

The original text of this chapter had been drafted in close consultation with the International Confederation of Free Trade Unions (ICFTU). Changes in wording proposed by delegations were generally for purposes of clarification. The only substantive change was the elimination of the reference in the objectives section to right to know laws, and the placement of the responsibility for ensuring participation of workers in environmental audits on the trade unions themselves. The reference to full and sustainable employment has been retained on the basis that this does not mean 100% employment per se.

MAJOR GROUPS: BUSINESS AND INDUSTRY

Negotiations concerning the role of business and industry in contributing to sustainable development were dealt with during two contact sessions of the contact group on the role of major groups. Debate revolved about three critical issues: confusion surrounding the definition of non-government organizations, a perceived lack of equity in the treatment of different groups and the need for a more balanced portrayal of industry activities and responsibilities.

MAJOR GROUPS: THE SCIENTIFIC AND TECHNOLOGICAL  
COMMUNITY

Few substantive changes were proposed to the text of Add. 13. The scientific and technological community was defined to include, among others, engineers, architects, industrial designers, urban planners, and other professionals and policy makers. The reference to "ethical principles" in the title of the second program area was removed, although the phrase "ethical awareness in environmental and developmental decision-making" remains in the text.

MAJOR GROUPS: STRENGTHENING THE ROLE OF FARMERS

Discussion of this final chapter of Add. 13 proceeded quickly in the Contact Group. The definition of farming was extended to include fishing and rural forestry practices. The importance of farming management activities as well as data and information have been included. Wording to protect and formalize women's access to tenure and use of land, as well as their access to credit and training has been included.



## NGO PARTICIPATION - PREPCOM IV

As of the end of PrepCom IV, over 1400 NGOs were accredited by the Preparatory Committee based on the criteria of "relevance and competence". This number is unprecedented in UN terms and includes over sixty Canadian organizations (list attached), all of whom will receive formal invitations to attend UNCED at Rio as observers.

Canada once again included on its official delegation representatives of environment and development NGOs, youth, women, indigenous organizations, labour, public policy and business and industry.

Early concerns that NGO participation in this PrepCom would be severely restricted due to the "negotiations" nature of the meeting were dealt with in the first Plenary where the PrepCom adopted procedures to facilitate NGO access to meetings. It was agreed that NGOs would be permitted to make statements only in formal meetings, but could attend informal meetings as observers. Meetings of contact groups, or so-called "informal informal" meetings would be closed to NGOs. Some difficulties were encountered in the implementation of these procedures, including insufficient copies of documents. Once these were resolved, the informal collaborative interaction between NGOs and delegates that had developed during previous PrepComs resumed.

One of the highlights of this PrepCom from a Canadian perspective was the role played by Canadian NGOs, in particular the chair of the CPCU working group on oceans issues, in focusing international NGO attention on the environmental and social impacts of high seas overfishing. A key element of this effort was the emphasis on the impact on the global marine ecosystem of unsustainable fishing practices.

The principles of partnership and collaboration that have evolved around the UNCED preparatory process have been incorporated in the revised version of the Secretariat paper "Strengthening the Role of Major Groups" (A/CONF.151/PC/L.72, formerly A/CONF.151/PC/100/Add.13). The objectives and activities set out in L. 72 establish a solid foundation for the full involvement of all societal groups in the follow up to Rio. Canada participated actively in the negotiation of all chapters, and delegation reports of these debates are included elsewhere in this report.

It is widely acknowledged that NGOs have participated to an unprecedented extent in UN terms in the UNCED preparatory process, and that Canada has played a leading role throughout the preparatory process in forging the partnerships with major groups and their organizations that



are a prerequisite to their full participation in the implementation of Agenda 21 at all levels of government and society.

Summary prepared by:

Tim Leah  
UNCED National Secretariat  
953-9449

**ATTACHMENT****Canadian Organizations with PrepCom Accreditation**

Asbestos Institute of Canada  
 Assembly of First Nations (AFN)  
 Association Quebecoise des Organismes de Cooperation  
 Internationale (AQOCI)  
 Association des Universites de Langue Francais (AUPELF -  
 UREF)

Bakavi School of Permaculture  
 Barbados Association of Canada

Camrose International Institute (CII)  
 Canadian Coalition for Nuclear Responsibility (CCNR)  
 Canadian Participatory Committee for UNCED (CPCU)  
 Canadian Council for International Cooperation (CCIC)  
 Canadian Forestry Association  
 Canadian Institute of Forestry  
 Canadian Institute of International Affairs (CIIA)  
 Canadian Labour Congress (CLC)  
 Canadian Public Health Association  
 Canadian Pulp and Paper Association (CPPA)  
 Canadian University Service Overseas (CUSO)  
 Canadian Youth Foundation/Youth '92 (CYF)  
 Centre d'Information et de Documentation sur le Mozambique  
 et l'Afrique Australe  
 Clean Nova Scotia Foundation  
 Council of Forest Industries of British Columbia  
 Cultural Survival (Canada)

**Earthroots**

ECO-ED: World Congress for Education and Communication on  
 Environment and Development  
 Energy Probe Research Foundation/Probe International  
 Environmental Law Centre (Alberta) Society

Forest Alliance of British Columbia  
 Fondation pour la Sauvegarde des Especies Menacies  
 Foundation for International Training

**Grand Council of the Crees**

Indigenous Survival International  
 Institute for Research on Environment and Economy (U. of  
 Ottawa)  
 International Centre for Ocean Development (ICOD)  
 International Council for Adult Education (ICAE)  
 International Council of Jewish Women  
 International Council for Local Environmental Initiatives  
 (ICLEI)

International Council on Metals and the Environment  
 International Development Education Resources Association  
 International Economic Law Society, Canada  
 International Institute of Concern for Public Health  
 International Institute for Peace through Tourism  
 International Organisation of Indigenous Resource  
 Development  
 Inuit Circumpolar Conference (ICC)  
 Inuvialuit Game Council

National Aboriginal Forestry Association (NAFA)  
 National Farmers Union  
 Native Council of Canada (NCC)

Ontario Forest Industries Association (OFIA)

Pollution Probe  
 Protect Our Water and Environmental Resources (POWER)

Region Laboratoire Durable du Developpement Durable  
 Rural Advancement Foundation International (RAFI)

Science for Peace  
 Secretariat International de l'Eau (SIE)  
 Share B.C.  
 Social Justice Committee of Montreal

Turtle Island Earth Stewards (TIES)

Union Quebecoise pour la Conservation de la Nature  
 UN Association in Canada (UNAC)

Western Canada Wilderness Committee (WCWC)  
 Western Environment and Development  
 Whistler Foundation for Sustainable Environment  
 World Council of Indigenous Peoples  
 World Leisure and Recreation Association

9 April, 1992

Form 675 G (S)  
PROCÉDÉ **Plasdex** • PROCESS  
MONTREAL TORONTO

## AGENDA 21 PREAMBLE

### **DOCUMENTATION**

A/CONF.151/PC/L.76: Adopted preambular paragraphs

### **CANADIAN OBJECTIVE**

To ensure that Agenda 21 implementation is driven by governments rather than international organisations and the United Nations system.

### **PREPCOM DISCUSSION**

Canada took the initiative in PrepCom IV to convene meetings of interested delegations with the objective of ensuring that there would in fact be a preamble to Agenda 21 that would lay out the basic context.

Canada's central concern was to ensure that implementation of Agenda 21 will not be driven by international organisations or the United Nations system, but by governments, based on national sustainability plans (Green Plans). Canada was also concerned that the preamble reflect the need for broad public participation, and recognition that Agenda 21 is an evolving process.

A CANZ (Canada, Australia and New Zealand) written submission to the Chair of the PrepCom, largely drafted by Canada, became a significant component of the preamble to Agenda 21. Australia was reluctant to oblige governments to create national plans, on the grounds that under certain circumstances full national plans may not be necessary; the text therefore indicates that "national strategies, plans, policies and processes are crucial in achieving" successful implementation of Agenda 21 by governments.

### **OUTCOME AND ASSESSMENT**

The CANZ written submission is almost entirely reflected in the final adopted text of the Agenda 21 preamble. No substantive concerns in the CANZ text were dropped. The Canadian objectives have therefore been met.



General Assembly

Distr.  
LIMITED

A/CONF.151/PC/L.76  
3 April 1992

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE  
UNITED NATIONS CONFERENCE  
ON ENVIRONMENT AND DEVELOPMENT  
Fourth session  
New York, 2 March-3 April 1992  
Agenda item 2 (c) of plenary

PREPARATIONS FOR THE UNITED NATIONS CONFERENCE ON ENVIRONMENT  
AND DEVELOPMENT ON THE BASIS OF GENERAL ASSEMBLY RESOLUTION  
44/228 AND TAKING INTO ACCOUNT OTHER RELEVANT GENERAL ASSEMBLY  
RESOLUTIONS: CROSS-SECTORAL ISSUES

Preambular paragraphs for Agenda 21

Proposal submitted by the Chairman

1. Humanity stands at a defining moment in its history. We are confronted with a perpetuation of disparities between and within nations, a worsening of poverty, hunger, ill health and illiteracy, and the continuing deterioration of the ecosystems on which we depend for our well-being. However, integration of environment and development concerns, and greater attention to them will lead to the fulfilment of basic needs, improved living standards for all, better protected and managed ecosystems and a safer, more prosperous future. No nation can achieve this on its own; but together we can - in a global partnership for sustainable development.
2. This global partnership must build on the premises of General Assembly resolution 44/228 of 22 December 1989, which was adopted when the nations of the world called for the United Nations Conference on Environment and Development, and on the acceptance of the need to take a balanced and integrated approach to environment and development questions.
3. Agenda 21 addresses the pressing problems of today and also aims at preparing the world for the challenges of the next century. It reflects a global consensus and [political commitment at the highest level] on development and environment cooperation. Its successful implementation is

*and sub-regional*

first and foremost the responsibility of Governments. <sup>1/</sup> National strategies, plans, policies and processes are crucial in achieving this. International cooperation should support and supplement such national efforts. In this context, the United Nations system has a key role to play. Other international, ~~and~~ regional organizations are also called upon to contribute to this effort. The broadest public participation and the active involvement of the non-governmental organizations and other groups should also be encouraged.

4. [The developmental and environmental objectives of Agenda 21 will require a substantial flow of new and additional financial resources to countries in need, particularly <sup>to</sup> developing countries in order to cover the incremental costs for the actions they have to undertake to deal with global environmental problems and to accelerate sustainable development. Financial resources are also required for strengthening the capacity of international institutions for the implementation of Agenda 21. An indicative order-of-magnitude assessment of costs is included in each of the programme areas. This assessment will need to be examined and refined by the relevant implementing agencies and organizations.]

5. The programme areas that constitute Agenda 21 are described in terms of the Basis for action, Objectives, Activities and Means of implementation. Agenda 21 is a dynamic programme. It will be carried out by the various actors according to the different situations, capacities and priorities of countries and regions. It could evolve over time in the light of changing needs and circumstances. This process marks the beginning of a new global partnership for sustainable development.

*participants*

-----

---

<sup>1/</sup> When the term Governments is used, it will be deemed to include the European Economic Community within the areas of its competence.





## PROTECTION OF THE ATMOSPHERE

### **SUMMARY**

Negotiations of this chapter of Agenda 21 at PrepCom IV were based on a text introduced by the G-77 during the opening day of negotiations. This negotiating text was essentially a modification of the Secretariat's document PC/100/Add.14 and divided the chapter into four programme areas: a) addressing the uncertainties; b) promoting sustainable development through: energy development, efficiency, and consumption; transportation; industrial development; and terrestrial and marine resource development and land-use; c) transboundary atmosphere pollution; and d) stratospheric ozone depletion. The G-77 modified text was an attempt to eliminate those objectives and activities which tended to duplicate, preempt or prejudice the negotiations within the INC-Climate Change. The segregation of transboundary atmosphere pollution and stratospheric ozone depletion from promoting sustainable development was questioned by several delegations including Canada. However, in the spirit of compromise this text was accepted as the basis of further negotiations.

Negotiations were difficult with several delegations trying to introduce text that reflected their positions on how to deal with atmospheric issues (e.g., economic instruments and regulatory measures). Text that appeared to duplicate or prejudice the INC process was either rejected or made more general in terms of the broader atmospheric issues rather than focusing on just climate change or GHG emissions. The unwillingness of some G-77 countries to accept the terms and conditions of the Montreal Protocol caused some difficulties and considerably weakened this programme area.

During the Plenary's deliberations on this chapter, Saudi Arabia, Kuwait, and Yemen introduced a number of additions and suggested deletions to the negotiated text which were accepted by the Chair (i.e. introduction of additional square brackets). In addition, they placed the entire text in square brackets stating that the protection of the atmosphere chapter in its entirety duplicated, preempted and prejudged the INC-Climate Change negotiations and that this chapter would have to be renegotiated in Rio after the INC had completed its negotiations. This chapter, therefore, remains in a state of flux and will need to be further negotiated prior to including it in Agenda 21.

**DOCUMENTATION**

A/CONF.151/PC/WG.I/L.47 and Corr.1 Adopted Agenda 21 chapter: Protection of the Atmosphere (replaces C/100/Add.14).

**CANADIAN OBJECTIVES**

The Canadian objectives were consistent with those proposed for previous sessions of the preparatory committee. Canada sought a refocusing of the protection of the atmosphere chapter so that it would emphasize the full range of factors contributing to atmospheric degradation, and the linkages among the atmospheric issues and with other environmental issues and with development issues. If this approach was not acceptable to the Preparatory Committee, Canada was then to encourage the adoption of those measures which are consistent with the Green Plan, the draft National Action Strategy on Global Warming, and other relevant federal policies. Modification was to be sought for those measures and targets which go beyond existing federal programmes and policies or those means of implementation which are inconsistent with positions taken by Canada in other international fora. Canada was to encourage the PrepCom to introduce a degree of flexibility into the proposed activities to allow nations to work towards implementation of agreed objectives (and activities) in a manner that is consistent with its particular environmental, social and economic circumstances. For those proposals which could not be modified in the above manners, Canada was to call for the deletion of the objectional proposal.

More specifically, Canada was to encourage maintenance, enhancement, and, where appropriate, introduction of proposals for the basis of action, objectives and activities within Agenda 21 which are consistent with the following principles:

1. An holistic approach to protection of the atmosphere which recognizes the need to also address the atmospheric issues in terms of the linkages among the atmospheric issues of climate change, transboundary air pollution, and stratospheric ozone depletion. This includes aspects of each of the atmospheric issues which are aggravated by proposed international responses to the other atmospheric, environmental and development issues and which represent an opportunity for complementary or synergistic response actions.

2. The need to address the linkages between the climate change issue, and the biodiversity, oceans and forests issues particularly in terms of the international deliberations towards associated international agreements and statements and in terms of developing options dealing with these linkages which could be considered by the relevant sectoral bodies.
3. The need to identify critical linkages and possible elements of an agenda for action to address the atmospheric issues including consideration of the linkages between climate change and such issues as demographic pressures, land-use, international economic development, poverty, quality of the living environment, health, condition of women and children, vulnerable groups, international economic environment and food security.
4. The need for a consistent approach among all elements of Agenda 21 in terms of the means of implementation such as capacity development; technology development, cooperation and transfer; normative measures; economic policy and instruments; information, monitoring and data; and recognition that the suggested costing figures should be viewed as illustrative only and not the subject of negotiations at this PrepCom.
5. Insuring that the proposed actions under reducing the uncertainties [providing the scientific basis] addresses the need to strengthen cooperation on international and regional research, development, and demonstration programmes (e.g., through the World Climate Programme) including support for integrated national/regional programmes directed at:
  - reducing uncertainties associated with climate change, stratospheric ozone depletion, and transboundary air pollution including the science, the environmental, social (including human health concerns) and economic consequences (costs and benefits) on a local, regional and global basis;
  - increasing the resilience of key climate dependent sectors (e.g., agriculture and forestry);
  - improving communication of the results of international and regional research and development activities through directed international, regional, and national education and information programmes; and
  - identifying social, economic and environmental costs and benefits of response options.

6. The need for maintaining, enhancing and, where appropriate, establishing multiple-use regional and global monitoring and assessment capabilities as an integral part of reducing the uncertainties. These capabilities should include collecting and analyzing data and information on physical, biological, social and economic variables that could be used to assess the state of the regional and global atmosphere and climate including their variations and trends, and the responses of managed and unmanaged ecosystems (including protected areas) and related social and economic systems.
7. Recognition within Agenda 21 that from an atmospheric perspective, achieving sustainable development will necessitate including proposals which address the broader issues of climate, climate variability, and climate change arising from causes other than enhanced atmospheric concentrations of greenhouse gases.
8. Discouraging PrepCom from including with this chapter of Agenda 21 activities which duplicate, preempt, or prejudice the work of the INC process working towards a convention on climate change.

#### **PREPCOM DISCUSSION**

Deliberations began with the introduction by the G-77 of a text that they requested should be the basis of negotiations. This text was a modification of the Secretariat's document PC/100/Add.14 restructured around 4 principal programme areas with the paragraphs they felt duplicated or prejudged the INC-Climate Change Convention negotiations eliminated. Initial discussions centred on the validity of this G-77 text as the basis of action with many nonG-77 delegations, including Canada, preferring to use the Secretariat's document.

The major difficulty with the G-77 text was the fragmented approach in which the three atmospheric issues were split by introducing separate programme areas. The G-77 text is comprised of four programme areas: a) addressing the uncertainties; b) promoting sustainable development through: energy development, efficiency, and consumption; transportation; industrial development; and terrestrial and marine resource development and land-use; c) transboundary atmosphere pollution; and d) stratospheric ozone depletion. Many nonG-77 delegations felt that this division would lead to duplication and did not allow for addressing the linkages between the issues. China, on behalf of the G-77 felt that addressing the linkages in this type of document was premature and should be left for future considerations.

In the spirit of compromise and recognizing that concerns regarding the inefficiency of the modified structure could be addressed as negotiations proceeded, the G-77 text was accepted as the basis of negotiations. Notable points raised during the negotiations are:

- 1) Saudi Arabia and Kuwait felt that it was inappropriate to call for early entry into force of the framework convention on climate change and the pursuit of policies and programmes which would contribute to the achievement of the objectives of the convention. This paragraph had been proposed by the UK and mirrored a similar paragraph within the chapter on Biodiversity.
- 2) Saudi Arabia and Kuwait objected to including "and consumption" in the title of the first subprogramme area stating that it was inappropriate for Agenda 21 to address the consumption issue. They insisted that these words remain in square brackets. Other delegations indicated that in terms of protecting the atmosphere, increasing efforts directed at the demand side of the energy equation was an integral component.
- 3) Canada was able to introduce the private sector as a partner in the delivery of this (and other) chapters of Agenda 21. This introduction met with no resistance.
- 4) Canada was also instrumental in introducing language on the Global Climate Observing System and the need to enhance the capability to predict atmospheric changes and fluctuations and to assess the resulting impacts.
- 5) Saudi Arabia and Kuwait insisted on maintaining the reference to environmentally safe and sound energy and also tried to introduce the concept of safe whenever renewable energy sources or systems was introduced. Saudi Arabia also had difficulty with the use of the phrase "new and" renewable sources of energy and requested time to solicit comments from its capital prior to removing the brackets. In the case of environmentally safe and sound, they were not open to any suggestion which could remove the brackets other than retaining the existing wording. For "new and" renewable energy sources, the brackets were removed by including a footnote defining new and renewable energy sources as per the reports of the Committee on the Development and Utilization of New and Renewable Sources of Energy.
- 6) Tunisia introduced the concept of scientifically determining GHG emissions per capita as an activity under reducing the uncertainty. This proposal was

rejected by the majority of the delegations and after some prompting the G-77 indicated that it had been unable to persuade Tunisia to withdraw its proposal. The USA stated during the debate that it could not even accept retention of the phrase in square brackets and that if included it would be forced to call a point of order on the basis of incompetence. This issue was resolved by a Canadian proposal brokered by Sweden which called for the examination of the feasibility of, and where appropriate, development of scientifically credible methodologies for identifying critical loads or thresholds for greenhouse gas emissions. This text was later rejected by Saudi Arabia even after it was suggested that greenhouse gas emissions be replaced by atmospheric emissions.

- 7) The EC introduced specific reference to economic instruments in the subprogramme area on energy development, efficiency [and consumption]. This resulted in considerable negotiations to try and develop an acceptable text. The reluctance to include any reference to economic instruments came from the G-77 but was held by a minority of members. Some of those countries which opposed the reference to economic instruments were able to accept language that referred to a mix of economic and regulatory measures and the introduction of flexibility as to whether or not these would be promoted. Saudi Arabia and Kuwait, however, could not accept this language and asked for retention of the square brackets.
- 8) Canada and the EC were able to introduce language regarding education and awareness raising and labelling programmes in the energy-related subprogramme area.
- 9) Sweden reintroduced the concept of a conference on transportation and the environment, however, they improved the proposal by redirecting the proposal to examining the feasibility of convening regional conferences.
- 10) Iceland attempted to introduce language that would have industrial development promoted in areas where energy, particularly from new and renewable sources, were plentiful. Through negotiations, this was modified to take a more holistic view to promoting sustainable industrial development, with reference to area-specific accessible potentials for energy as one factor to be considered.

- 11) The EC reintroduced the concept of incorporating the social costs of environmental impacts caused by industrial production. This concept was retained, however, recognizing that there was still considerable work to be done in certain areas, the emphasis was changed to continuing research and other work aimed at developing methodologies and criteria.
- 12) Under the stratospheric ozone depletion programme area the major contentious issue was how to include specific reference to the Montreal Protocol and its control measures when some countries had not signed or ratified it or its 1990 amendments. This was a issue of particular concern to some members of the G-77. The reference to realizing the objectives of the Montreal Protocol (proposed by the G-77) was thought to be an acceptable compromise.
- 13) An activity within the programme area on stratospheric ozone depletion that called for the replacement of ozone-depleting substances that were not greenhouse gases was introduced by Switzerland. Through negotiations, this activity was modified to make it consistent with efforts under the Montreal Protocol and included a call for an holistic evaluation of a replacement's suitability.
- 14) Tunisia introduced the concept of developing strategies for reducing the effects of air pollution including identifying specific actions to address their environmental, economic, social and other effects. This proposal was unacceptable to the EC, USA and Canada which wanted the emphasis placed on reducing emission rather than reducing the effects. A balance was struck in the final text which included both reducing emissions and the effects. The need to include the latter was based on recognition that some transboundary air pollution (e.g., that resulting from natural disasters and accidents) could occur and strategies should be developed to reduce the effects.

#### OUTCOME AND ASSESSMENT

The PrepCom IV decision document was placed entirely in square brackets by Saudi Arabia, Kuwait and Yemen during the Plenary session. In addition, during that same session these delegation introduced a number of phrases and suggested deletion of several paragraphs in the negotiated text. The rationale given for these actions was that the entire chapter duplicated and prejudged the negotiations within the INC-Climate Change and therefore negotiation

should be held off until after the INC-Climate Change has concluded its negotiation (final negotiating session before UNCED is April 30 - May 14). As a result, the chapter remains in a state of relative flux and will need to be renegotiated at UNCED based on the Climate Change Convention.

Although Saudi Arabia, Kuwait and Yemen put the entire chapter in square brackets, the majority of their concern are contained within the programme area on promoting sustainable development which contains most of the actions directed at the energy sector. This would suggest that this programme area will need to be re-examined in light of the climate change convention. It is my belief, however, that regardless of the outcome of those negotiations, Saudi Arabia and Kuwait will not be able to accept any proposals that suggest reducing fossil fuel consumption, that promote the use of other sources of energy in place of fossil fuels, or that include the use of economic instruments as a means of changing consumption patterns.

Overall, the document coming out of PrepCom IV does represent some gains relative to the Secretariat's document PC/100/Add.14 at least with respect to Canadian objectives. The segregation of transboundary air pollution and stratospheric ozone depletion into separate programme areas is a step backwards and counter to our objectives; however, this is somewhat compensated for by the introduced language that recognizes and tries to address the linkages between the issues.

The square bracketed text, beside those around the entire text fall within the following categories:

- a) environmentally [safe and] sound energy systems - The square bracketed phrase is a reference to not promoting nuclear energy with the words "safe and" introduced by Saudi Arabia. This debate has been going on for a number of years and should be resolved. The most effective way of doing this could be to make reference to the need to increase the safety aspects of all energy systems throughout the entire cycle with the goal of minimizing risk.
- b) reference to economic instruments and incorporating externalities into the price - These proposals are part of the deliberations within the INC-Climate Change convention negotiations and should be resolved prior to Rio. Working Group I had negotiated a proposal that was acceptable (provided flexibility) in the opinion of most delegations. This negotiated language should be revisited in light of the climate change convention.



- c) specific reference to the entry into force of the climate change convention - Agreement should be possible on the specific language of this paragraph once the framework convention on climate change has been negotiated.
- d) phrase introduced and phrases and paragraphs placed in square brackets by Saudi Arabia, Kuwait and Yemen during Plenary - These changes will need to be addressed on an individual case basis, however, the existing language in the PrepCom IV decision, which most delegation support, should be used as the basis for continuing negotiations.

The PrepCom IV decision document is comprised of some gains but in general holds the line, particularly with respect to climate change and stratospheric ozone which are being dealt with in other fora. The gains are primarily found in the areas of addressing the uncertainties and in transboundary air pollution (particularly outside of the ECE).

Some minor gains are also reflected in the stratospheric ozone depletion programme area (e.g., need for an holistic evaluation of replacement substances and assessment of effects), however, the fact that specific reference to the required control measures could not be made is a step backwards. Overall, this programme area holds the line and attempts not to interfere with the Montreal Protocol process.

Those proposals which include efforts directed at combatting climate change hold the line in the majority of cases with some slight movement forward. This movement forward was achieved through recognizing that responding to climate change should be seen as part of a comprehensive strategy directed at protecting the atmosphere. In most cases proposed actions were directed at limiting or reducing all emissions and not only those associated with one particular atmospheric issue.

The resulting PrepCom IV decision document represents a movement in the direction identified in the Canadian objectives. Despite the separation of the atmospheric issues into separate programme areas, the decision document does look at a broader range of factors contributing to atmospheric degradation (i.e. not just energy) and does introduce the need to look at the linkages among the atmospheric issues and with other environmental and with development issues. In addition, all proposals are consistent with Canadian policy and programmes with sufficient flexibility to allow Canadians to work towards implementation of agreed objectives (and activities) in a

manner that is consistent with our particular environmental, social and economic circumstances.

With respect to the specific objectives, Canada was able to introduce the following concepts:

- discouraging PrepCom from including objectives and activities which duplicate, preempt, or prejudge the work of the INC-Climate Change process;
- a more holistic approach to protection of the atmosphere;
- the linkages between the climate change issue, and the biodiversity, oceans and forests issues through assembly of supportive data and information;
- priority areas of research related to critical linkages between the environmental and developmental issues as they relate to the atmosphere;
- strengthen cooperation on international and regional research, development, and demonstration programmes;
- increasing the resilience of key climate dependent sectors (e.g., agriculture and forestry);
- improving communication of the results of international and regional research and development activities through directed international, regional, and national education and information programmes;
- maintaining, enhancing and, where appropriate, establishing multiple-use regional and global monitoring and assessment capabilities as an integral part of reducing the uncertainties; and
- the broader issues of climate, climate variability, and climate change arising from causes other than enhanced atmospheric concentrations of greenhouse gases.

Prior to Rio, Canada will need to assess the remaining bracketed text, including the suggested additions and deletions by Saudi Arabia, Kuwait and Yemen. This assessment should be based on the already identified Canadian positions on these matters resulting from consultations prior to PrepCom IV, the positions of other delegations and the direction the negotiations took at PrepCom IV, and the results of the INC-Climate Change negotiations. Positions should be developed for all bracketed text using the interdepartmental working group process and, as appropriate, provincial/territorial and industry/NGO consultations.

The delegation to UNCED should be prepared to negotiate the bracketed text within the documents PC/WG.I/L.47 and Corr.1. These negotiations will be done at UNCED as there is too little time between the close of the next session of the INC-Climate Change and the start of UNCED.

Canada should resist efforts to renegotiate the entire text. Negotiation should be limited to those portions which are in square brackets within the text and those portions which contradict language agreed to within the INC-Climate Change process. The negotiations of this chapter should not be used as a means for countries to achieve those objectives that they were not able to have recognized within the framework convention on climate change.

Report prepared by:

Roger Street  
Environment Canada  
(416) 739-4271



General Assembly

Distr.  
LIMITED

A/CONF.151/PC/WG.I/L.47  
30 March 1992

ORIGINAL: ENGLISH

---

PREPARATORY COMMITTEE FOR THE  
UNITED NATIONS CONFERENCE ON  
ENVIRONMENT AND DEVELOPMENT  
Fourth session  
New York, 2 March-3 April 1992  
Working Group I  
Agenda item 2

PROTECTION OF THE ATMOSPHERE

Text submitted by the Chairman on the basis of negotiations  
held on document A/CONF.151/PC/100/Add.14

(Section II, chapter 1, of Agenda 21)

BACKGROUND

The atmosphere component of Agenda-21 should be flexible and evolving. The Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (INC) is addressing many of the issues contained in the following text. In so far as the following proposals refer to climate-related activities discussed by the INC, they should not pre-empt, duplicate or be interpreted as prejudging the INC negotiations concerning questions that may arise and be discussed there, such as general objectives and commitments, standards, conditionality, institutional arrangements and mechanisms for funding incremental costs. Negotiations on this chapter of Agenda 21, therefore, will have to take account of the state of negotiations on the framework convention on climate change.

, Similarly, the following text, in so far as it relates to combating the depletion of the ozone layer, should not pre-empt or prejudice the deliberations within the Montreal Protocol process. Negotiations of this text by the Preparatory Committee will have to take account of the status of obligations under the Montreal Protocol and its 1990 amendments.

## INTRODUCTION

1. [An overall objective in this area is to achieve the early entry into force of the framework convention on climate change and its related instruments that might be agreed upon, with the widest possible participation, and to pursue [energy and other] relevant [policies]/[and programmes] which will contribute to the achievement of the objectives of that convention. (NOTE: The final language of this paragraph will be dependent on the outcome of the INC.)

2. The present chapter includes four programme areas:

- A. Addressing the uncertainties: improving the scientific basis for decision-making;
- B. Promoting sustainable development:
  - 1. Energy development, efficiency and consumption;
  - 2. Transportation;
  - 3. Industrial development;
  - 4. Terrestrial and marine resource development and land use;
- C. Stratospheric ozone depletion: implications and response strategies;
- D. Transboundary atmospheric pollution.

## PROGRAMME AREAS

- A. Addressing the uncertainties: improving the scientific basis for decision-making

### Basis for action

3. Substantial knowledge of the environmental and development issues related to the atmosphere has been gained. However, concern over climate change and climate variability, air pollution and ozone depletion has created new demands for scientific and economic information. Better understanding and prediction of physical, chemical and biological properties of the atmosphere and of the affected ecosystems, as well as health impacts and their interactions with socio-economic factors are needed.

### Objectives

4. The objectives of this programme area are:

(a) To improve the understanding of the processes that influence and are influenced by the Earth's atmosphere on a global, regional and local scale,

/...

including, inter alia, physical, chemical, geological, biological, oceanic, hydrological, economic and social processes; and to reduce uncertainties with regard to the economic and social consequences of response measures taken in this regard;

(b) To develop, maintain and, where appropriate, enhance systematic observations of the atmosphere and affected ecosystems, as well as impacts on human health and social and economic systems. The emphasis should be on assembling coincident and supportive databases, where possible, and on exchanging these data and related information to the fullest extent possible;

(c) To enhance international cooperation in building the capacities and abilities of countries to identify atmospheric problems, to conduct research, to assemble, collect and assess data by using existing data and by establishing and expanding systematic observation capabilities, and to participate in the exchange of the resulting data and information.

#### Activities

5. Governments [and regional economic integration organizations] at the appropriate level, with the cooperation of the relevant United Nations bodies and, as appropriate, intergovernmental and non-governmental organizations, the private sector and financial institutions, should:

(a) Identify priority areas of scientific, technical and socio-economic research related to the critical linkages between the environmental and development issues arising in all sectors, as they relate to the atmosphere, with the support of relevant United Nations bodies, regional and subregional organizations, industry, research institutions and other non-governmental organizations;

(b) Promote studies on issues concerning the interaction between socio-economic parameters and atmospheric changes, such as climate change, enhanced ultraviolet radiation and increase in various air pollutants, as they relate to various ecosystems; oceans and all seas and their surface layers; economic sectors, especially at the regional and local levels; soils; and biodiversity in general;

(c) Ensure a more balanced geographical coverage of the Global Atmosphere Watch network by facilitating, inter alia, the establishment and operation of additional systematic observation stations and by contributing to the development, utilization and accessibility of the Global Atmosphere Watch database;

(d) Promote cooperation in the development of early detection systems concerning changes in the atmosphere, both those resulting from human activities and others;

(e) Invite the Intergovernmental Panel on Climate Change (IPCC) to examine the feasibility of, and where appropriate, develop scientifically credible methodologies for identifying critical loads for greenhouse gas emissions;

(f) Cooperate in facilitating the participation and training of experts and technical staff, particularly of developing countries, in the fields of research, data assembly, collection and assessment, and systematic observation related to the atmosphere;

(g) Promote the exchange of data and information, including those related to national, subregional and regional experiences for air pollution control;

(h) Maintain, enhance or establish the capability to predict atmospheric changes and fluctuations and to assess the resulting environmental consequences and socio-economic impacts.

## B. Promoting sustainable development

### 1. Energy development, efficiency and consumption

#### Basis for action

6. Much of the world's energy is produced and used in ways that could not be sustained if technology were to remain constant and if overall quantities were to increase substantially. This is particularly true in so far as atmospheric emissions are concerned. The international community must continually strive for energy development paths that are increasingly [safe and] sound environmentally and economically efficient. This will require reliance on environmentally [safe and] sound energy systems, increasingly based on efficiency in energy production, transmission, distribution and consumption, as well as on the use of [new and] renewable sources of energy. All energy sources will need to be used in ways that respect the atmosphere and the environment as a whole.

7. The existing constraints to increasing the energy supplies required for pursuing the path towards sustainable development, particularly in developing countries, need to be removed.

#### Objectives

8. The objectives of this programme are:

(a) As a long-term objective, to adopt methods and techniques that move away from present polluting and wasteful energy production and consumption patterns. [This is closely linked to the goal of diminishing current adverse effects on the atmosphere.] The new energy systems should be environmentally [safe and] sound, and increasingly based on efficiency in energy production,

/...

transmission, distribution and consumption, as well as on the use of [new and] renewable sources of energy;

(b) To promote efficiency in energy production, transmission, distribution and use;

(c) To promote the use of efficient and less polluting technologies in the production and consumption of energy from fossil fuels, from [new and] renewable sources of energy and other conventional sources, which will remain important;

(d) To increase the contribution of environmentally [safe and] sound energy systems to the energy supply and consumption mix, in particular through the promotion, distribution and development of renewable sources of energy;

(e) To promote and enhance adequate and equitable energy availability in economically viable and environmentally [safe and] sound ways to respond to the increasing energy needs for sustainable economic and social development, particularly in developing countries;

(f) To cooperate to undertake the necessary technical, research, development and adaptation measures to support a transition to environmentally [safe and] sound energy systems. Special consideration will need to be given to countries heavily dependent on the production, export and consumption of fossil fuels to ensure that the transition does not adversely affect their development.

#### Activities

9. Governments [and regional economic integration organizations] at the appropriate level, with the cooperation of the relevant United Nations bodies and, as appropriate, intergovernmental and non-governmental organizations, the private sector and financial institutions, should:

(a) Cooperate in identifying and developing energy sources to promote the availability of increased energy supplies, to support sustainable development efforts, in particular in developing countries;

(b) Cooperate in the development of appropriate methodologies for making integrated energy, environment and economic policy decisions in a sustainable and a long-term framework, while supporting efforts to carry out environmental impact assessments of relevant policy decisions and projects. Planning and implementation of energy efficiency should as much as possible be adapted by countries, taking into account regional and subregional energy strategies, where appropriate;

(c) Promote the transfer, development and use of improved energy-efficient technologies, including indigenous technologies, in all relevant sectors, giving special attention to renewable sources of energy and the rehabilitation and modernization of power systems, through capacity-building and management, particularly in developing countries;



(d) [Study and develop economic instruments, which may play an important role in achieving structural changes and improved efficiency in the production and consumption of energy;]

(e) Review current energy supply mixes to determine how the contribution of environmentally [safe and] sound energy systems as a whole, particularly [new and] renewable energy systems could be increased in an economically efficient manner, taking into account respective countries' unique social, physical, economic and political characteristics[, including measures that would ensure that [new and] renewable energy sources are not discriminated against in domestic energy markets];

(f) Coordinate energy plans regionally and subregionally, where applicable, and study the feasibility of efficient distribution of energy from [new and] renewable energy sources;

(g) To consider, with a view to increasing research, development and the introduction of environmentally [safe and] sound energy systems, particularly for renewable energy sources and to promote research and development, particularly in developing countries;

(h) Cooperate to increase the availability of capacity, capabilities and relevant technologies - recognizing that technology includes biotechnology - in developing countries for utilizing and producing environmentally sound renewable energy resources, such as solar, wind, geothermal, hydropower and biomass, including woodfuel resources. Each should be utilized in a manner that fosters sustainable development and minimizes environmental stress and health impacts, emphasizing the need for easily available, cleaner burning, smoke-free household fuel;

(i) [Develop sustainable energy policies [programmes] in order to improve energy efficiency by, inter alia:

- (i) Formulating, in cooperation with the private sector, appropriate objectives or policies relating to energy production and consumption;
- (ii) Promoting application of economic instruments with a view to taking into account environmental and other social costs while encouraging greater efficiency;
- (iii) Building capacity for energy planning and programme management in energy efficiency, including the introduction, development and management of [new and] renewable sources of energy;]

(j) [Strengthen existing and/or set new energy efficiency and emission standards or recommendations on specific technologies, as appropriate. Countries may wish to coordinate these standards or recommendations at regional and subregional levels. Such standards or recommendations should provide ongoing incentives for more efficient and less polluting energy use, with special attention being paid to the promotion of the development and use of alternative and less polluting technologies;]

(k) Encourage education and awareness-raising programmes at the local, national, subregional and regional levels concerning energy efficiency and environmentally [safe and] sound energy systems;

(l) Establish or enhance, as appropriate, in cooperation with the private sector, labelling programmes for products to provide decision makers and consumers with information on opportunities for energy efficiency.

## 2. Transportation

### Basis for action

10. The transport sector is a source of atmospheric emissions. With increasing economic development there will be consequent increases in transportation needs, which could be accompanied by related emissions, unless appropriate action is taken. There is need for a review of existing transport systems, involving vehicle emissions, the reorientation and management of traffic and transport systems, and infrastructural issues, including land use and urban planning.

### Objectives

11. The objectives of this programme are:

(a) To develop and promote programmes and strategies to limit and reduce, as appropriate, emissions of pollutants into the atmosphere and other adverse environmental effects of the transport sector, taking into account development priorities, as well as the specific local and national circumstances and safety aspects;

(b) To plan and develop more efficient and less polluting transportation systems, especially mass transit, to support economic development efforts in an environmentally [safe and] sound way, giving special attention to urban and metropolitan areas.

### Activities

12. Governments [and regional economic integration organizations] at the appropriate level, with the cooperation of the relevant United Nations bodies and, as appropriate, intergovernmental and non-governmental organizations, the private sector and financial institutions, should:

(a) Develop and promote more efficient and less polluting transport systems, particularly integrated rural and urban mass transit, as well as environmentally sound road networks, taking into account the needs for sustainable social and economic development, particularly in developing countries;

(b) Facilitate at the international, regional subregional and national levels [cooperation related to] the transfer of safe, energy-efficient and less polluting transport technologies, particularly to the developing countries, including the implementation of appropriate training programmes;

(c) Strengthen, as appropriate, their efforts at collecting, analysing and exchanging relevant information on the relation between environment and transport. Particular attention needs to be given to systematic observation of emissions and to the development of a transport database, including information on the types and numbers of vehicles, fuel types [and pricing] and pollution controls;

(d) With the aim of enhancing and developing environmentally sustainable transportation systems, evaluate and, as appropriate, promote economic mechanisms, including pricing, which, inter alia seek to discourage large, fuel-consuming and polluting vehicles, and encourage the development and use of alternative fuels;

(e) Develop or enhance, as appropriate, mechanisms to integrate the transport planning strategies and urban and regional settlement planning strategies, with the aim of reducing additional needs for transport;

(f) Study, within the framework of the United Nations and appropriate international bodies, the feasibility of convening regional conferences on transport and the environment and their scope; such conferences could involve governmental representation and relevant international organizations, as well as the private sector and relevant academic institutions.

### 3. Industrial development

#### Basis for action

13. Industry is essential for the production of goods and services and is a major source of employment and income, and industrial development as such is essential for economic growth. At the same time, industry is a major energy user and consequently results in emissions into the atmosphere and the environment as a whole. Protection of the atmosphere can be enhanced, inter alia, by increasing energy efficiency in industry, installing or improving pollution abatement technologies and replacing CFCs and other ozone-depleting substances with appropriate substitutes, as well as by promoting and implementing practices based on recycling and reducing wastes and by-products.

#### Objectives

14. The objectives of this programme are:

(a) To increase countries' capacities to undertake industrial development efforts in an environmentally [safe and] sound manner to support their development objectives;

(b) To increase efficiency in the production and consumption by industry of [energy and other] resources and materials;

(c) To improve pollution-abatement technologies, develop new, environmentally [safe and] sound technologies and facilitate [cooperation related to] the transfer of those technologies by inter alia, supporting and implementing relevant international agreements, as appropriate.

#### Activities

15. Governments [and regional economic integration organizations] at the appropriate level, with the cooperation of the relevant United Nations bodies and, as appropriate, intergovernmental and non-governmental organizations, the private sector and financial institutions, should:

(a) Encourage industry to increase and strengthen its capacity to develop products and processes that are more energy-efficient, safe and environmentally sound;

(b) Develop, improve and apply environmental impact assessments to foster sustainable industrial development;

(c) Alternative A:

[Support initiatives promoting clean and more efficient technologies and processes in industries with a view to limiting industrial pollution;]

Alternative B:

[Promote programmes and practices that encourage sustainable industrial development, technologies and processes, taking into account area-specific accessible potentials for energy, particularly safe and renewable sources of energy, with a view to limiting industrial pollution;]

(d) [Continue research and other work aimed at developing methodologies and criteria for incorporating the social costs of the environmental impacts caused by industrial production, as well as the treatment and disposal of wastes generated, into the prices of the final products;]

(e) [Promote efficient use of materials and resources, taking into account all aspects related to cycles of production and consumption, including reuse, recycling, recovery and disposal.]

/...

4. Terrestrial and marine resource development and land use

Basis for action

16. Land-use and resource policies will both affect and be affected by changes in the atmosphere. Certain practices related to terrestrial and marine resources and land use can decrease greenhouse gas sinks and increase atmospheric emissions. The loss of biological diversity may reduce the resilience of ecosystems to climatic variations and air pollution damage. Atmospheric changes can have important impacts on forests, biodiversity, and freshwater and marine ecosystems, as well as on economic activities, such as agriculture. Policy objectives in different sectors may often diverge and will need to be handled in an integrated manner.

Objectives

17. The objectives of this programme are:

(a) To promote terrestrial and marine resource utilization and land-use practices that contribute to:

- (i) Reducing atmospheric pollution or limiting anthropogenic emissions of greenhouse gases;
- (ii) The conservation, sustainable management and enhancement, where appropriate, of all sinks for greenhouse gases;
- (iii) The conservation and sustainable use of natural and environmental resources;

(b) To ensure that actual and potential atmospheric changes and their socio-economic and ecological impacts are fully taken into account in planning and implementing policies and programmes concerning terrestrial and marine resources utilization and land-use practices.

Activities

18. Governments [and regional economic integration organizations] at the appropriate level, with the cooperation of the relevant United Nations bodies and, as appropriate, intergovernmental and non-governmental organizations, the private sector and financial institutions, should:

(a) Implement policies and programmes that will discourage inappropriate and polluting land-use practices and promote sustainable utilization of terrestrial and marine resources and environmentally sound land-use practices;

(b) [Consider promoting the development and use of terrestrial and marine resources and land-use practices that will be more resilient to atmospheric changes and fluctuations.]

C. Preventing stratospheric ozone depletion

Basis for action

19. Analysis of recent scientific data has confirmed the growing concern over the continuing depletion of the Earth's stratospheric ozone layer by reactive chlorine and bromine from man-made chlorofluorocarbons (CFCs), halons and related substances. While the 1985 Vienna Convention for the Protection of the Ozone Layer and the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer (as amended in London in 1990) were important steps in international action, the total chlorine loading of the atmosphere of ozone-depleting substances has continued to rise. This can be changed through compliance with the control measures identified within the Protocol.

Objectives

20. The objectives of this programme area are:

(a) To realize the objectives defined in the Vienna Convention and the Montreal Protocol and its 1990 amendments, including the consideration in those instruments of the special needs and conditions of the developing countries and the availability to them of alternatives to substances that deplete the ozone layer. Technologies and natural products that reduce demand for these substances should be encouraged;

(b) To develop strategies aimed at mitigating the adverse effects of ultraviolet radiation reaching the Earth's surface as a consequence of depletion and modification of the stratospheric ozone layer.

Activities

21. Governments [and regional economic integration organizations] at the appropriate level, with the cooperation of the relevant United Nations bodies and, as appropriate, intergovernmental and non-governmental organizations, the private sector and financial institutions, should:

(a) Ratify, accept or approve the Montreal Protocol and its 1990 amendments; pay their contributions towards the Vienna/Montreal trust funds and the interim multilateral ozone fund promptly; and contribute as appropriate, towards ongoing efforts under the Montreal Protocol and its implementing mechanisms, including making available substitutes for CFCs and other ozone-depleting substances and facilitating the transfer of the corresponding technologies to developing countries in order to enable them to comply with the obligations of the protocol;

(b) Support further expansion of the Global Ozone Observing System by facilitating - through bilateral and multilateral funding - the establishment and operation of additional systematic observation stations, especially in the tropical belt in the southern hemisphere; participate actively in the continuous assessment of scientific information and the health and

/...

environmental effects, as well as of the technological/economic implications of stratospheric ozone depletion; and consider further actions that prove warranted and feasible on the basis of these assessments;

(c) Based on the results of research on the effects of the additional ultraviolet radiation reaching the Earth's surface, in the fields of human health, agriculture and marine environment, [States and international organizations should] consider taking appropriate remedial measures;

(d) Alternative A:

[Replace CFCs and other ozone-depleting substances, consistent with the Montreal Protocol, recognizing that a replacement's suitability should be evaluated holistically and not simply based on its contribution to solving one atmospheric or environmental problem;]

Alternative B:

[Replace CFCs and other ozone-depleting substances with appropriate substitutes that do not deplete the ozone layer, or do so to a significantly lesser degree. Preference should be given to substitutes that are not greenhouse gases.]

#### D. Transboundary atmospheric pollution

##### Basis for action

22. Transboundary air pollution has adverse health impacts on humans and other detrimental environmental impacts, such as tree and forest loss and the acidification of water bodies. The geographical distribution of atmospheric pollution monitoring networks is uneven, with the developing countries severely underrepresented. The lack of reliable emissions data outside Europe and North America is a major constraint to controlling transboundary air pollution. There is also insufficient information on the environmental and health effects of air pollution in other regions.

23. The 1979 Economic Commission for Europe Convention on Long-range Transboundary Air Pollution has established a regional regime in Europe and North America, based on a review process and cooperative programmes for air pollution monitoring, assessment and information exchange. These programmes need to be continued and enhanced, and their experience needs to be shared with other regions of the world.

##### Objectives

24. The objectives of this programme area are:

(a) To develop and apply pollution control and measurement technologies for stationary and mobile sources of air pollution and to develop alternative environmentally [safe and] sound technologies;

(b) To observe and assess systematically the sources and extent of transboundary air pollution resulting from natural processes and anthropogenic activities;

(c) To strengthen the capabilities, particularly of developing countries, to measure, model and assess the fate and impacts of transboundary air pollution, through, inter alia, exchange of information and training of experts;

(d) To develop capabilities to assess and mitigate transboundary air pollution resulting from industrial [and nuclear] accidents, natural disasters and the deliberate and/or accidental destruction of natural resources;

(e) To encourage the establishment of new and the implementation of existing regional agreements for limiting transboundary air pollution;

(f) To develop strategies aiming at the reduction of emissions causing transboundary air pollution and their effects.

#### Activities

25. Governments [and regional economic integration organizations] at the appropriate level, with the cooperation of the relevant United Nations bodies and, as appropriate, intergovernmental and non-governmental organizations, the private sector and financial institutions, should:

(a) Establish and/or strengthen regional agreements for transboundary air pollution control and cooperate, particularly with developing countries, in the areas of systematic observations and assessment, modelling and the development and exchange of emission control technologies of mobile and stationary sources of air pollution. In this context, greater emphasis should be put on addressing the extent, causes, health and socio-economic impacts of ultraviolet radiation, acidification of the environment and photo oxidant damage to forests and other vegetation;

(b) Establish or strengthen early warning systems and response mechanisms for transboundary air pollution resulting from industrial accidents and natural disasters and the deliberate and/or accidental destruction of natural resources;

(c) Facilitate training opportunities and exchange of data, information and national and/or regional experiences;

(d) Cooperate on regional, multilateral and bilateral bases to assess transboundary air pollution, and elaborate and implement programmes identifying specific actions to reduce atmospheric emissions and to address their environmental, economic, social and other effects.



Means of implementation

(a) Financial and cost-evaluation

[26. The major financial implications for programme area A (Addressing the uncertainties: improving the scientific basis for decision-making) would be for additional systematic observation and assessment of atmosphere-related issues. These are assessed in more detail in section IV, chapter 9 of Agenda 21. It is estimated that \$675 million per year will be needed in international financing for developing country programmes, as follows:

(a) Additional monitoring and assessments for these global issues in developing countries will cost on the average about \$640 million per year, all of which will need to come from international sources;

(b) The early detection system will require \$5 million annually from international sources; strengthening regional monitoring activities and international coordination of these will cost about \$30 million per year.

27. The major financial implications of programme area B (Promoting sustainable development) are as follows:

(a) During the 1990s, the total developing country energy investment requirements are expected to rise to \$120 billion per year. In order to keep the same percentage of the energy investments from international sources, at least \$4-\$4.5 billion per year will be required for the developing countries only. About \$3.5 billion are being covered from international sources at present, representing about 3-4 per cent of total investment requirements. Were this to double, annual requirements would be on the order of \$9 billion;

(b) To ensure that more efficient energy systems and renewable energy sources would be used in developing countries, thereby ensuring reduced carbon dioxide emissions, an additional sum of about \$5 billion would be required from the international community. These are issues that relate directly to climate change, as both efficiency increases and alternative fuel supplies result in lower greenhouse gas emissions. Consequently, these are issues that are at present being negotiated within the Intergovernmental Negotiating Committee on a Framework Convention for Climate Change, and any decision within Agenda 21 will need to be adjusted in accordance with the outcome of those negotiations;

(c) Finally, to ensure environmentally sound energy development, up to \$1 billion per year would be required from international sources;

(d) The approximately \$10 billion needed from the international community for implementing this programme area would be divided about equally between funds for accelerating development and those needed for global issues;

/...

(e) The national costs of promoting mass transit, as well as fuel efficiency and vehicle emission standards, are likely to be negative over time. Nevertheless, initial capital investments will be required, over and above existing plans. The magnitude of these funds will also need to be determined through the proposed regional conferences;

(f) In the area of industry, the major costs involved for developing countries will be for the development or purchase and management of new and cleaner industrial production technologies, in addition to the energy efficiency measures for industry, already covered in programme area B.1. Of particular interest is the increased cost of licensing newer, more efficient and less polluting industrial technologies. It is not possible to give an overall figure for the financial needs for these. However, since the activities to be undertaken in this area are similar to those for energy efficiency and for pollution abatement, it is possible to estimate that total requirements will be an additional \$25 billion per year, of which 3-10 per cent or \$1-\$2 billion per year could come from international sources during the 1990s. Were the percentage of international contributions to double, the requirements would be \$2-\$4 billion per year;

(g) In the area of terrestrial and marine resource development and land use, most of the activities proposed are activities that are being dealt with in other programme areas. The difference is that the objectives, and consequently the implementation, should shift in ways that take into account expected atmospheric changes. The extra cost to the international community of developing new crop varieties and agricultural practices that will be more resilient to atmospheric changes may be an additional \$100 million per year. It should be possible to absorb the additional cost for the coordination of efforts at the national and the international levels within existing budgets.

28. The annual costs to the international community for phasing out ozone-depleting substances by the year 2000 are estimated in the range of \$160-\$590 million per year. These are funds needed in addition to those already made available under the Montreal Protocol. Annual costs for the WMO Global Ozone Observing System, including the establishment of additional monitoring stations, will be less than \$1 million per year.

29. Technical assistance and pilot programmes related to transboundary air pollution efforts will cost about \$2 million annually.]

(b) Scientific and technological means

30. Developed countries should cooperate, in particular with developing countries to enable them to acquire or develop the relevant new, energy efficient and less polluting technologies, practices and policies. (Language to be supplemented following agreement on "Technology transfer, etc.").

/...

(c) Institutional means

31. Changes to existing and new institutional mechanisms of technical and financial assistance may be needed at national, regional and global levels. There is particularly urgent need for work in the areas of energy efficiency and environmentally sound energy systems, especially renewable sources.

(i) National level

32. At the national level most countries have appropriate institutions dealing with energy. Their mandates, however, need to be considerably expanded to include responsibilities for the social and environmental impacts caused by the energy systems and to fully integrate the energy needs of the rural sector. Countries need to ensure the intersectoral collaboration of agricultural, forestry and rural development authorities for the latter.

(ii) Regional and subregional level

33. Regional and subregional institutions exist in a number of areas and are undertaking regional energy-related work. Some of these are within regional economic commissions, and others are regional, intergovernmental organizations. The work of these regional and subregional bodies needs to be strengthened, and other regional energy bodies may need to be set up to ensure that all the activities of a regional character of this programme area can be undertaken by them, particularly the regional energy efficiency activities that are being proposed above.

(iii) Global level

34. In addition to strengthening existing and creating new regional institutions, a global level institutional response will also be required. There is, at present no lead agency responsible for the whole range of energy issues within the United Nations.

35. United Nations collaborating centres. Collaborating centres could be set up by relevant United Nations bodies, with existing or new governmental or non-governmental institutions, at the regional or global level, to assist countries and United Nations agencies in implementing environmentally sound energy activities.

36. Review of public financial institutions. Countries should ensure that public financial institutions at the national and international levels review their programmes to determine the extent to which they are contributing to or are promoting investments that encourage the use of environmentally [safe and] sound energy systems and thereby better serve environmental and developmental objectives.

(d) Capacity-building

37. Countries, in cooperation with the relevant United Nations bodies, international donors and non-governmental organizations, should mobilize technical and financial resources and facilitate technical cooperation with developing countries to reinforce their technical, managerial, planning and administrative capacities to promote sustainable development, through energy development, efficiency, and consumption, transportation, industrial development, and terrestrial and marine resource development and land use.

(e) Human resource development

38. Education and awareness-raising programmes need to be introduced and strengthened at the local, national and international levels concerning the promotion of sustainable development through energy development, efficiency and consumption, transportation, industrial development, and terrestrial and marine resource development and land use.

-----



General Assembly

Distr.  
LIMITED

A/CONF.151/PC/WG.I/L.47/Corr.1  
2 April 1992

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE UNITED  
NATIONS CONFERENCE ON ENVIRONMENT  
AND DEVELOPMENT

Fourth session  
New York, 2 March-3 April 1992  
Working Group I  
Agenda item 2

PROTECTION OF THE ATMOSPHERE

Text submitted by the Chairman on the basis of negotiations  
held on document A/CONF.151/PC/100/Add.14

(Section II, chapter 1, of Agenda 21)

Corrigendum

GENERAL CHANGES

1. Delete the brackets around all occurrences of "new and". At the first occurrence (para. 6), include the following footnote 1/:

1/ New and renewable energy sources are: solar thermal, solar photovoltaic, wind, hydro, biomass, geothermal, ocean, animal and human power, as referred to in the reports of the Committee on the Development and Utilization of New and Renewable Sources of Energy, prepared specifically for the Conference (see A/CONF.151/PC/119 and A/AC.218/1992/5).

2. Delete all occurrences of [, and Regional Economic Integration Organizations].

SPECIFIC CHANGES

Paragraph 1

For the existing text substitute

[The drafting of the introduction will be dependent on the outcome of the negotiations of the Intergovernmental Negotiating Committee on a Framework Convention for Climate Change.]

Paragraph 3

The end of the second sentence and the beginning of the third sentence should read

for scientific, economic and social information, to reduce the remaining uncertainties in these fields. Better understanding and prediction of the various properties of the atmosphere and of the

Paragraph 5 (c)

For the existing text substitute

Ensure a more balanced geographical coverage of the Global Climate Observing System and its components, including the Global Atmosphere Watch by facilitating, inter alia, the establishment and operation of additional systematic observation stations and by contributing to the development, utilization, and accessibility of these databases;

Paragraph 6

The third sentence should read

The international community should continue to strive for economically efficient energy development paths that are increasingly safe and environmentally sound.

Paragraph 7, line 1

For energy supplies read [[safe and] environmentally sound] energy supplies

Paragraph 8 (a)

For the existing text substitute

As a long-term objective, to adopt methods and techniques which move towards less polluting and more efficient energy systems as well as an increased use of economically viable, new and renewable sources of energy, with a view to reduce any adverse effects on the atmosphere, bearing in mind the need for increasing energy consumption by developing countries;

/...

Paragraph 8 (b)

For the existing text substitute

To promote efficient and safe and environmentally sound energy production, transmission, distribution and use;

Paragraph 8 (c)

For the existing text substitute

To promote the use of efficient, and less polluting technologies in the production and consumption of energy from fossil fuels, and other [safe,] conventional sources, which will remain important, as well as new and renewable sources of energy;

Paragraph 9 (b)

For while supporting efforts to carry out environmental impact assessments read and furthermore they should be encouraged to carry out environmental impact assessments

Paragraph 9 (d)

The subparagraph should be deleted and the remaining subparagraphs renumbered (d) to (k).

Paragraph 9 (e)

After political characteristics the text should read examining and implementing, where appropriate, measures to overcome any barriers to their development and use;

Paragraph 9 (i)

The introductory part of the subparagraph should read

[Develop sustainable energy policies and programmes to achieve appropriate structural change and to improve efficiency in the production, transmission and consumption of energy, by, inter alia:

Paragraph 9 (i) (i), line 2

After consumption add in order to improve energy efficiency and achieve appropriate structural change;

Paragraph 9 (i) (ii)

For the existing text substitute

Promoting, as appropriate, the development and application of economic and regulatory measures with a view to take into account environmental and other social costs;

Paragraph 9 (i) (iii)

For including the introduction, development and management of [new and] renewable sources of energy;] read as well as for the development, introduction and promotion of new and renewable sources of energy;

Paragraph 9 (j), line 1

For [Strengthen read [Develop and/or strengthen

Paragraph 10, lines 6 and 7

Delete all text after transport systems,

Replace , with .

Paragraph 11 (a), line 1

After promote add , as appropriate, [cost-effective]

For limit and read control and/or

Paragraph 12 (c)

For the existing text substitute Strengthen, as appropriate, their efforts at collecting, analysing and exchanging relevant information on the relation between environment and transport. Particular attention needs to be given to systematic observation of emissions and to the development of a transport database;

Paragraph 15 (c)

For the existing text substitute

Support the promotion of less polluting and more efficient technologies and processes in industries, taking into account area-specific accessible potentials for energy, particularly safe and renewable sources of energy, with a view to limiting industrial pollution;

Paragraph 15 (d)

Delete brackets



Paragraph 15 (d), line 2

After environmental add and other

Paragraph 15 (e)

For the existing text substitute

[Promote efficient use of materials and resources, taking into account all aspects related to life cycles of products.]

Paragraph 18 (b)

Delete brackets

Paragraph 21 (c)

For the text after Earth's surface, substitute consider taking appropriate remedial measures in the fields of human health, agriculture and marine environment;

Paragraph 21 (d)

Delete Alternative B and the text below it

Paragraph 23, line 2

For Air Pollution has read Air Pollution and its protocols have

Paragraph 23, lines 3 and 4

For air pollution monitoring read systematic observation of air pollution

Paragraph 24 (d)

Delete brackets around and nuclear

Paragraphs 32-36

Put into brackets

Paragraph 37, lines 5-7, and paragraph 38, lines 3-5

Delete text after sustainable development

Add and the protection of the atmosphere, in all relevant sectors.

Below paragraph 38

Add the footnote contained in the first correction above

-----



## INTEGRATED APPROACH TO PLANNING AND MANAGEMENT OF LAND RESOURCES

### **SUMMARY**

Negotiations proceeded relatively smoothly on the basis of the Secretariat's document PC/100/Add.15 as this chapter had been the subject of negotiations at PrepComm III. The resulting PrepComm IV decision document contains no bracketed text (other than that within the Means of Implementation). The majority of suggested changes during the negotiations at this session were directed at providing a more precise focus to the objectives and activities; more precisely identifying timeframes; providing the required flexibility to allow implementation in the variety of political, economic and social circumstances; and encouraging a cooperative approach involving local communities and the private sector in the decision-making process.

### **DOCUMENTATION**

A/CONF.151/PC/WG.I/L.41 and Corr.1 Adopted Agenda 21 chapter: Management of Land Resources (replaces PC/100/Add.15).

### **CANADIAN OBJECTIVES**

1. Seek to support the ecosystem approach to the management of land resources, which is an integrated approach covering all aspects: air, water, land and biological resources.
2. Seek to promote wider recognition that environmental management cuts across all levels of government.
3. Seek to emphasize that integrated planning at the international and national levels is a necessary but not sufficient condition for linkage of environment and development issues.
4. Seek to remind other nations that effective management of land resources is impossible without the full, active and informed participation of those whose livelihoods are at stake; and that, successful national development programmes can build upon sustainable land management practices of indigenous people.
5. Seek acceptance of the concept that integrated planning includes identifying and setting aside areas of land for protection of biological diversity and essential ecological services.

## **PREPCOMM DISCUSSION**

Canada joined with its CANZ partners in presenting a proposal in writing to the Chairman of WGI suggesting changes to the Secretariat's document PC/100/Add.15. This was possible because of the relative consistency of the CANZ positions, particularly with respect to increased local community participation and a full system approach to management.

Most delegation expressed a general satisfaction with the Secretariat's document. As this document had been the subject of negotiations at PrepComm III, it required only some fine tuning at this session. This involved refocusing the document to more of a bottom-up approach involving local communities with specific reference to the role of women and indigenous people and their communities in planning and management of land resources, particularly agricultural and rural development.

The original timeframes proposed in the Secretariat's document caused some difficulty as they were unclear and could be misinterpreted. These timeframes, "within x years" were changed through negotiations to provide a more precise target year (i.e. not later than a specific year). The concern was that the deadlines should not restrict action either in advance of the deadline or afterwards.

This was the first chapter within WGI in which the question of governments at national level not having the mandate/competence to deliver on the proposals (i.e. land resources management). It was decided that the most effective way of dealing with problem would be to have a consistent approach throughout the Agenda 21 chapters where this was a concern. The resulting solution was to use the phrase "governments, at the appropriate level".

## **OUTCOME AND ASSESSMENT**

The resulting decision document (PC/WG.I/L.41 and Corr.1) is a consensus document containing no square brackets (except those within the Means of Implementation). Canadian objectives are reflected in the decision document. In particular, the document does contain reference to an ecosystem approach to the management of land resources; recognition that environmental management cuts across all levels of government; recognition that effective management of land resources requires the full, active and informed participation of those whose livelihoods are at stake including indigenous people and their communities; and recognition that integrated planning includes identifying and setting aside areas of land for protection of biological

diversity and essential ecological services.

There should be little if any further action on this paper. The only outstanding issues are those related to the means of implementation. These should be dealt with in concert with similar areas within the other Agenda 21 chapters and consistent with UNCED decisions on financial resources and transfer of technology.

Report prepared by:

Roger Street  
Environment Canada  
(416) 4271

Further Information:

Keith Valentine  
CIDA  
994-0662



General Assembly

*interpretes  
WGI/L.41/CONF.1*

Distr.  
LIMITED

A/CONF.151/PC/WG.I/L.41  
17 March 1992

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Fourth session  
New York, 2 March-3 April 1992  
Working Group I  
Agenda Item 3 (b)

LAND RESOURCES: SOIL LOSS

Text submitted by the Chairman on the basis of negotiations  
held on document A/CONF.151/PC/100/Add.15

Integrated approach to the planning and management  
of land resources

(Section II, chapter 2 of Agenda 21)

*Delete*

~~Below is the text of document A/CONF.151/PC/100/Add.15 as it has been agreed in informal negotiations on 13 March 1992. The paragraphs in the introduction, basis for action and means for implementation have not been negotiated: language on these sections will be inserted later, based on the results of ongoing consideration of cross-sectoral issues.~~

INTRODUCTION

*To be considered  
at Rio*

1. Land is normally defined as a physical entity in terms of its topography and spatial nature; a broader integrative view also includes natural resources: the soils, minerals, water and biota that the land comprises. These components are organized in ecosystems which provide a variety of services essential to the maintenance of the integrity of life-support systems and the productive capacity of the environment. Land resources are used in ways that take advantage of all these characteristics. Land is a finite resource, while the natural resources it supports can vary over time and according to management conditions and uses. Expanding human requirements and economic activities are placing ever increasing pressures on land resources,

creating competition and conflicts and resulting in suboptimal use of both land and land resources. If, in the future, human requirements are to be met in a sustainable manner, it is now essential to resolve these conflicts and move towards more effective and efficient use of land and its natural resources. Integrated physical and land-use planning and management is an eminently practical way to achieve this. By examining all uses of land in an integrated manner, it makes it possible to minimize conflicts, to make the most efficient trade-offs and to link social and economic development with environmental protection and enhancement, thus helping to achieve the objectives of sustainable development. The essence of the integrated approach finds expression in the coordination of the sectoral planning and management activities concerned with the various aspects of land use and land resources.

2. The chapter consists of one programme, "Integrated approach to the planning and management of land resources", which deals with the reorganization and, where necessary, some strengthening of the decision-making structure, including existing policies, planning and management procedures and methods that can assist in putting in place an integrated approach to land resources. It does not deal with the operational aspects of planning and management, which are more appropriately dealt with under the relevant sectoral programmes. Since the programme deals with an important cross-sectoral aspect of decision-making for sustainable development, it is closely related to a number of other programmes that deal with that issue directly.

be  
referred  
+  
Ric

PROGRAMME AREA

A. INTEGRATED APPROACH TO THE PLANNING AND MANAGEMENT OF LAND RESOURCES

Basis for action (including, for example, impacts of the various economic & social sectors on the environment and natural resources)

3. (~~Derived from para. 19~~) Land resources are used for a variety of purposes which interact and may compete with each other; therefore it is desirable to plan and manage all uses in an integrated manner. Integration should take place at two levels, considering, on the one hand, all environmental, social and economic factors and, on the other, all environmental and resource components together (i.e., air, water, land, natural resources). Integrated consideration facilitates appropriate choices and trade offs, thus maximizing sustainable productivity and use. Opportunities to allocate land to different uses arise in the course of major settlement or development projects or in a sequential fashion as lands become available on the market).

4. (~~Derived from para. 15~~) A number of techniques, frameworks and processes can be combined to facilitate an integrated approach. They are the indispensable support for the planning and management process, at the national level, ecosystem or area levels and for the development of specific plans of action. Many of its elements are already in place, but need to be more widely

This in turn provides opportunities to support ... traditional patterns of sustainable land management or to assign protected status for conservation of biological diversity or critical ecological services

applied, further developed and strengthened). This programme is concerned primarily with providing a framework that will coordinate decision-making; the content and operational functions are therefore not included here but are dealt with in the relevant sectoral programmes of Agenda 21.

### Objectives

5. The broad objective is to facilitate allocation of land to the uses that provide the greatest sustainable benefits and to promote the transition to a sustainable and integrated management of land resources. In doing so, environmental, social and economic issues should be taken into consideration. Protected areas, private property rights, the rights of indigenous communities and the economic role of women in agriculture and rural development, among other issues, should be taken into account. In more specific terms, the objectives are to:

*people and their communities and their local*

(a) Review and develop policies to support the best possible use of land and sustainable management of land resources, by not later than 1996;

(b) Improve and strengthen planning, management and evaluation systems for land and land resources, by not later than 2000;

(c) Strengthen institutions and coordinating mechanisms for land and land resources, by not later than 1998;

(d) Create mechanisms to facilitate the active involvement and participation of all concerned, particularly communities and people at the local level, in decision-making on land use and management, by not later than 1996.

### Activities

#### Management-related

##### Develop supportive policies and policy instruments

6. Governments at the appropriate level, with the support of regional and international organizations, should ensure that policies and policy instruments support the best possible land use and sustainable management of land resources. Particular attention should be given to the role of agricultural land. To do this, they should:

(a) Develop integrated goal-setting and policy formulation at the national, regional and local levels which takes into account environmental, social, demographic and economic issues;

(b) Develop policies that encourage sustainable land use and management of land resources and take the land resource base, demographic issues and the interests of the local population into account;



(c) Review the regulatory framework, including laws, regulations and enforcement procedures, in order to identify improvements needed to support sustainable land use and management of land resources and restricts the transfer of productive arable land to other uses;

(d) Apply economic instruments and develop institutional mechanisms and incentives to encourage the best possible land use and sustainable management of land resources;

(e) Encourage the principle of delegating policy-making to the lowest level of public authority consistent with effective action and a locally driven approach.

Strengthen planning and management systems

7. Governments at the appropriate level, with the support of regional and international organizations, should review and, if appropriate, revise planning and management systems to facilitate an integrated approach. To do this, they should:

(a) Adopt planning and management systems that facilitate the integration of environmental components such as air, water, land and other natural resources, using approaches that focus on, for example, an ecosystem or a watershed;

*such as landscape-ecological planning (landep) or*

(b) Adopt strategic frameworks that allow the integration of both developmental and environmental goals, such as sustainable livelihood systems, rural development, the World Conservation Strategy/Caring for the Earth, primary environmental care (PEC) and others;

*examples of these frameworks include*

(c) Establish a general framework for land-use and physical planning within which specialized and more detailed sectoral plans (e.g., for protected areas, agriculture, forests, human settlements, rural development) can be developed; establish intersectoral consultative bodies to streamline project planning and implementation;

(d) Strengthen management systems for land and natural resources by including appropriate traditional and indigenous methods; examples of these practices include pastoralism, Hama reserves (traditional Islamic land reserves) and terraced agriculture

(e) Examine and, if necessary, establish innovative and flexible approaches to programme funding;

(f) Compile detailed land capability inventories to guide sustainable land resources allocation, management and use at the national and local levels.

Promote application of appropriate tools for planning and management

8. Governments at the appropriate level, with the support of national and international organizations, should promote the improvement, further development and widespread application of planning and management tools that

facilitate an integrated and sustainable approach to land and resources. To do this, they should:

(a) Adopt improved systems for the interpretation and integrated analysis of data on land use and land resources;

(b) Systematically apply techniques and procedures for assessing the environmental, social and economic impacts, risks, costs and benefits of specific actions;

(c) Analyse and test methods to include land and ecosystem functions and land resources values in national accounts.

#### Raise awareness

9. Governments at the appropriate level, in collaboration with national institutions and interest groups and with the support of regional and international organizations, should launch awareness-raising campaigns to alert and educate people on the importance of integrated land and land resources management and the role that individuals and social groups can play in it. This should be accompanied by provision of the means to adopt improved practices for land use and sustainable management.

#### Promote public participation

10. Governments at the appropriate level, in collaboration with national organizations and with the support of regional and international organizations, should establish innovative procedures, programmes, projects and services that facilitate and encourage the active participation of those affected in the decision-making and implementation process, especially of groups that have, hitherto, often been excluded, such as women, youth, indigenous peoples and local communities.

#### Data and information

##### Strengthen information systems

11. Governments at the appropriate level, in collaboration with national institutions and the private sector and with the support of regional and international organizations, should strengthen the information systems necessary for making decisions and evaluating future changes on land-use and management. The needs of both men and women should be taken into account. To do this, they should:

(a) Strengthen information, <sup>systematic observation</sup> monitoring and assessment systems for environmental, economic and social data related to land resources at the global, regional, national and local levels and for land capability and land-use and management patterns;

(b) Strengthen coordination between existing sectoral data systems on land and land resources and strengthen national capacity to gather and assess data;

(c) Provide the appropriate technical information necessary for informed decision-making on land use and management in an accessible form to all sectors of the population, especially to local communities and women;

(d) Support low-cost, community-managed systems for the collection of comparable information on the status and processes of change of land resources, including soils, forest cover, wildlife, climate and other elements.

#### International and regional coordination and cooperation

##### Establish regional machinery

*Governments at the appropriate level, with the support of*  
-12. National Governments, with the support of regional and international organizations, should strengthen regional cooperation and exchange of information on land resources. To do this, they should:

(a) Study and design regional policies to support programmes for land-use and physical planning;

(b) Promote the development of land-use and physical plans in the countries of the region;

(c) Design information systems and promote training;

(d) Exchange, through networks and other appropriate means, information on experiences with the process and results of integrated and participatory planning and management of land resources at the national and local levels.

#### Means of implementation

##### [Financing and cost evaluation

##### Sources of funds and concessional financing

13. It is assumed that most costs will be borne by Governments as part of the regular planning and management process. It is suggested that technical cooperation funding from international sources be made available at an annual cost of about US\$ 50 million.]

##### Scientific and technological

##### Enhance scientific understanding of the land resources system

*Governments at the appropriate level, with the support of*  
-14. Governments, in collaboration with the national and international scientific community and with the cooperation of appropriate national and international organizations, should promote and support research, on the land

*tailored to local environments /...*

resources system and the implications for sustainable development and management practices. Priority should be given to:

(a) ~~(Derived from para. 19.a)~~ <sup>as appropriate</sup> <assessment of land capability and ecosystem functions>;

(b) ~~(Derived from para. 19.b)~~ <ecosystemic interactions and interactions between land resources and social, economic and environmental systems>;

(c) ~~(Derived from para. 19.c)~~ <develop indicators of sustainability for land resources, taking into account environmental, economic, social, demographic, cultural and political factors>.

#### Test research findings through pilot projects

- Governments at the appropriate level, with the support of*
15. Governments, in collaboration with the national and international scientific community and cooperation of the relevant international organizations, should ~~(derived from para. 24.a)~~ <research and test, through pilot projects, the applicability of improved approaches to the integrated planning and management of land resources, including technical, social and institutional factors>.

#### Human resources development

##### Enhance education and training

- Governments at the appropriate level, with the support of*
16. Governments, in collaboration with appropriate international institutions, should promote the development of the human resources that are required to plan and manage land and land resources sustainably and:

(a) ~~(Derived from para. 23.b)~~ <emphasize interdisciplinary and integrative approaches in the curricula of schools and technical, vocational and university training>;

(b) ~~(Derived from para. 23.d)~~ <train all relevant sectors concerned to deal with land resources in an integrated and sustainable manner>;

(c) ~~(Derived from para. 23.g)~~ <train communities, relevant extension services, and NGOs on land management techniques and approaches applied successfully elsewhere>.

##### Capacity-building

##### Strengthen technological capacity

- at the appropriate level*
17. Governments, <sup>and with the support of</sup> in cooperation with other Governments and relevant international organizations, should promote ~~(para. 23 and 23.e)~~ <focused and concerted efforts for education and training and transfer of techniques and technologies, <sup>including</sup> ~~(including biotechnologies)~~ that support the various aspects of the planning and management process at the national and local levels>.

*Governments, in collaboration with the appropriate local authorities, non-governmental organizations and international institutions, should promote the development of the human resources that are required to plan and manage land and land resources sustainably. This should be done by providing incentives for...*

Strengthen institutions

*Governments at the appropriate level, with the support of*  
-18. Governments, in cooperation with appropriate international organizations, should: *review and, where appropriate*

~~(Derived from paras. 20.a, 20.e, 21.b, 23.c)~~

<(a) Revise the mandates of institutions that deal with land and natural resources to include explicitly the interdisciplinary integration of environmental, social and economic issues;

(b) Strengthen coordinating mechanisms between institutions that deal with land-use and resources management to facilitate integration of sectoral concerns and strategies;

(c) Strengthen local decision-making capacity and improve coordination with higher levels.>

-----

Form 675 G (S)  
PROCEDE **Plasdex** • PROCESS  
MONTREAL TORONTO

## DEFORESTATION

### **SUMMARY**

The negotiations on Agenda 21 for forests at PrepCom IV were generally satisfactory to Canada, although somewhat disappointing in terms of the lack of vision of the final text. The main Canadian objectives of preserving mention of the need to negotiate an International Convention for Forests and to produce criteria for sustainable development of forests were maintained. The final text does not contain wording which for policy or technical reasons is objectionable to Canada. The negotiated text will be subject to final agreement at the Conference level on financial resources, technology transfer and institutional arrangements.

### **DOCUMENTATION**

A/CONF.151/PC/WG.I/L.46 Adopted Agenda 21 chapter:  
Combatting Deforestation (replaces PC/100/Add.16).

### **CANADIAN OBJECTIVES**

At the outset of PrepCom IV, Canadian objectives were to :

- 1) Seek a title change from "options for Agenda 21: Combatting Deforestation" to "Options for Agenda 21: Forests" to properly reflect the breadth of the issues under discussion.
- 2) Continue to seek to reduce the current text to only a small number of direct and dramatic proposals designed to not only enhance world forests, but capture national leaders' imaginations and obtain their long-term commitment.
- 3) Seek a commitment to:
  - a) negotiate an International Convention on Forests;
  - b) develop internationally accepted criteria for sustainable forest management;
  - c) establish targets for forest cover and protected natural forests; and
  - d) establish a clear institutional focus to provide leadership and to coordinate international forest-related activities.
- 4) Avoid endorsement of the international financial assistance estimates proposed in Agenda 21-Deforestation.

- 5) Avoid language permitting use of trade measures to achieve any of the objectives above.

#### PREPCOM DISCUSSION

As was the case for Working Group one as a whole, negotiations on the forests item were conducted on the basis of Objectives and Programme Activities only. The Basis for Action and Means of Implementation were not considered, pending the outcome of negotiations on the cross-cutting issues of financial resources, technology transfer and institutions. With the more controversial issues placed in abeyance, negotiations continued at a relatively smooth and rapid pace.

From the beginning of the forest discussions, it became clear that the negotiations would be conducted on the basis of the secretariat text and therefore there would be little chance of substantially shortening the text to comprise crisp, clear statement which could capture the imagination of world leaders, as Canada had hoped. Faced with this reality, Canada re-tabled its statement from PrepCom III stressing the need to revise the Agenda 21 text for forests, to create additional pressure to at least have a short, cogent "chapeau" for the forests item, to serve the same general purpose.

In the early stages of negotiations, the G-77 introduced several new programme areas. These additions, largely drafted by the African group, were all relatively non-controversial. Rather than directly incorporate these sections into the already lengthy text, the main points were skilfully integrated by the Secretariat into the main body of the text, to the general satisfaction of the Working Group.

The only really contentious point in the deliberations came when Malaysia attempted to have any reference to an International Convention for Forests excluded on a point of procedure. Skilful intervention of Working Group chairman Ambassador Bo Kjellen (Sweden) helped avoid such an outcome. Eventually, with little support for exclusion of (even a bracketed) mention of a convention, Malaysia was obliged to relent. Subsequently, at a late stage in the PrepCom, satisfactory bracketed wording was re-incorporated into the text for consideration at Rio.

The rather awkward UN style of negotiating a Secretariat text which was somewhat clumsy to start with, produced a variety of wordings which are not fully satisfactory from the Canadian perspective, but which had to be accepted by



Canada in the interests of general consensus. One example is the frequent reference to the role of trees. Seen in a purely Canadian context, this could be interpreted to be giving excessive attention to timber values of forests. In fact, it represents a wording insisted upon by African nations to recognize the role of trees, or groups of trees, in areas which many would not consider forest. While the Canadian Delegation would have preferred to have such references deleted, this would only have served to antagonize the Africans and sour the debate. The references to the role of trees, as well as several others, must therefore be interpreted in view of the specific context in which they were proposed.

#### **OUTCOME AND ASSESSMENT**

Overall, the outcome of the negotiations on Agenda 21 for forests issues was acceptable to the Canadian Delegation, if somewhat disappointing due to the rather uninspiring nature of the final text.

Title: Unfortunately, the format of the negotiations did not permit a change of title for the agenda item as Canada had desired. However, there was wide support for a title change amongst delegates and pursuing title change remains an option for the Rio Conference.

Direct and dramatic: Particularly disappointing for Canada was the inability of the PrepCom to cut down the bulk of the text to a crisp statement to capture the imagination of world leaders on the state of the world's forests. Canada's attempt to have a chapeau to meet the same general objective was also thwarted by the format of the deliberations, which concentrated primarily on negotiating the details of the text at hand. Canada will continue to press for a chapeau for the item directly with the Secretariat during the inter-sessional period and at the Rio Conference itself in the context of general discussions on the final style and format of the entire Agenda 21 item.

Convention and criteria: Reference to the need for an International Convention for Forests (bracketed) and criteria for sustainable development of forests remain in the text.

Targets: The text contains general reference to targets for forests cover and protected natural forests.

Institutions: Institutional focus was not discussed at PrepCom IV in the individual working groups. However, this will continue to be the focus of deliberations at Rio within

the general context of institutional follow-up to UNCED as a whole.

Finances: Financial aspects of agenda items of this were not discussed at the working group level and remain to be determined following PrepCom IV.

Trade: There was only one attempt to introduce language involving trade as a means of achieving programme objectives. This was a proposal by Gabon, with the support of the African Group, to gain mention of the need for prices for forest products to reflect their full economic cost. This was diluted to an acceptable mention of the need to improving and promoting methodologies for comprehensive assessment of forest values that "will capture the full economic value of forests and incorporate them in the pricing structure of both wood and non-wood based products". This proposal also exists in a more controversial form (bracketed), in the Guiding Principles text.

Other: In addition to the original objectives set for the Canadian Delegation, Canada was able to successfully resist attempts by Malaysia to have mention of the ecological role of forests and forest ecosystems excluded from the text. This was a significant achievement for the Canadian Delegation, which received wide support from NGO groups for its successful attempts to safeguard the many prominent references to non-economic values of forests.

Finally, the text contains no reference to exclusion of other uses of forest lands, such as mining.

Report prepared by:

David Drake  
Forestry Canada  
997-1107



General Assembly

Distr.  
LIMITED

A/CONF.151/PC/WG.I/L.46  
1 April 1992

ORIGINAL: ENGLISH

---

PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Fourth session  
New York, 2 March-3 April 1992  
Working Group I  
Agenda item 3 (a)

LAND RESOURCES: DEFORESTATION

Text submitted by the Vice-Chairman of the Working Group, Mr. Charles A. Liburd (Guyana), as a result of negotiations held on a non-legally binding authoritative statement of principles for a global consensus on the management, conservation and sustainable development of all types of forests

PREAMBLE

- (a) The subject of forests is related to the entire range of environmental and development issues and opportunities including [the right to] socio-economic development.
- (b) The guiding objective of these principles is to contribute to the achievement of the management, conservation and sustainable development of forests, and to provide for their multiple and complementary function and uses.
- (c) Forestry issues and opportunities should be examined in a holistic and balanced manner within the overall context of environment and development, taking into consideration the multiple functions and uses of forests, including traditional uses, and the likely economic and social stress when these uses are constrained or restricted, as well as the potential for development that sustainable forest management can offer.
- (d) [The process of the United Nations Conference on Environment and Development is the most appropriate forum for conclusive decisions pertaining

to global consensus on forests [which should form the basis for [any subsequent preparations and adoption of a legal instrument on forests] [all other negotiations involving forests]].

(e) These principles should apply to all types of forests, both natural and planted, in all geographic regions and climatic zones, including austral, boreal, sub-temperate, temperate, sub-tropical and tropical.

(f) All types of forests, in-particular primary/old-growth forests, embody complex and unique ecological processes which are the basis for their present and potential capacity to provide resources to satisfy human needs as well as environmental values, and as such their sound management and conservation is of concern to the Governments of the countries to which they belong [and to the world community] [are of interest to the world community and only in so far as they pertain to international cooperation and]

*are*  
(g) [Forests are essential to economic development [of all sectors] and the maintenance of all forms of life. States have the right to utilize their forests in accordance with their development needs. Adequate management, conservation and sustainable development of all types of forest require sustainable [management], production and consumption patterns [in all countries, particularly in developed countries, remunerative prices for forest products that embody the full environmental and replacement cost; as well as the easing of the debt burden and the eradication of poverty in developing countries. [International cooperation will be necessary for the management, conservation and sustainable development of forests.]]] [The globally shared benefits of wise forest management and conservation should be supported by all beneficiary countries while recognizing the special [stewardship] role of the countries in whose territories the forest occur.]

*change*  
*sect*  
*attained*  
(h) [Recognizing that the responsibility for forest management, conservation and sustainable development is in many States allocated among federal/national, state/provincial and local levels of government, each State, in accordance with its constitution and/or national legislation, should pursue these principles at the appropriate level of government.]

#### PRINCIPLES/ELEMENTS

1. (a) ~~Reaffirm principle 21 of the Stockholm Declaration:~~ "States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction".

*The [incremental] [full]*  
*of the [incremental] [full]*  
(b) [~~The burden of~~] The incremental cost of forest conservation and [sustainable] development requires increased international cooperation [and should be equitably shared by the international community]. [~~is the~~ responsibility of all countries].

(g) Forests are essential to economic development and the maintenance of all forms of life. States have the right to utilize their forests in accordance with their development needs. Adequate management, conservation and sustainable development of all types of forest require sustainable production and consumption patterns in all countries, [particularly in developed countries.] [It is also linked to remunerative prices for forest products that embody the full environmental and replacement cost; as well as the easing of the debt burden and the eradication of poverty in developing countries.] [The globally shared benefits of wise forest management and conservation should be supported by all beneficiary countries while recognizing the [special role] [sovereign role] of the countries [to which they belong].]

2. (a) States ~~have the~~ ~~sovereign and inalienable~~ right to ~~should~~ utilize, manage and develop their forests in accordance with their development needs and level of socio-economic development and on the basis of national policies consistent with sustainable development and legislation, including the conversion of such areas for other uses within the overall socio-economic development plan based on rational land-use policies.

(b) Forest resources and forest lands should be sustainably managed to meet the social, economic, ecological, cultural and spiritual human needs of present and future generations. These needs are for forest products and services, such as wood and wood products, water, food, fodder, medicine, fuel, shelter, employment, recreation, habitats for wildlife, landscape diversity, and other forest products. Appropriate measures should be taken to protect forests against harmful effects of pollution, including air-borne pollution, fires, pests and diseases in order to maintain their full multiple value.

(c) The provision of timely, reliable and accurate information on forests and forest ecosystems is essential for public understanding and informed decision-making and should be ensured.

(d) Governments should promote and provide opportunities for the participation of interested parties, including local communities and indigenous people, industries, labour, non-governmental organizations and individuals, forest dwellers and women, in the development, implementation and planning of national forest policies.

3. (a) National policies and strategies should provide a framework for increased efforts, including the development and strengthening of institutions and programmes for the management, conservation and sustainable development of forests and forest lands.

(b) International institutional arrangements, building on those organizations and mechanisms already in existence, as appropriate, should facilitate international cooperation in the field of forests.

(c) All aspects of environmental protection and social and economic development as they relate to forests and forest lands should be integrated and comprehensive.

4. The vital role of all types of forests in maintaining the ecological processes and balance at the local, national, regional and global levels through, inter alia, their role in protecting fragile ecosystems, watersheds and freshwater resources and as rich storehouses of biodiversity and biological resources and sources of genetic material for biotechnology products, as well as ~~carbon storage~~, should be recognized.

5. (a) National forest policies should recognize ~~the interests and~~ respect the rights of indigenous people, local communities, and forest dwellers. Favourable conditions should be promoted for these groups for them to have an economic stake in forest use, to perform economic activities, and achieve and

CONF  
151

CONF.151/PC/WG.I/L.46  
CONF.151/PC/WG.I/L.46  
CONF.151/PC/WG.I/L.46

maintain cultural identity and social organization, as well as adequate levels of livelihood and well-being, including through those land tenure arrangements which serve as incentives for the sustainable management of forests.

(b) The full participation of women in all aspects of management, conservation and sustainable development of forests should be actively promoted.

6. (a) All types of forest play an important role in meeting energy requirements through the provision of a renewable source of bio-energy, particularly in developing countries, and the demands for fuelwood for household and industrial needs should be met through sustainable forest management, afforestation and reforestation. To this end, the potential contribution of plantations of both indigenous and introduced species for the provision of both fuel and industrial wood should be recognized.

(b) National policies and programmes should take into account the relationship, where it exists, between the conservation, management and sustainable development of forests and all aspects related to the production, consumption, recycling and/or final disposal of forest products.

(c) Decisions taken on the management, conservation and sustainable development of forest resources should benefit to the extent practicable from a comprehensive assessment of economic and non-economic values of forest goods and services and of the environmental costs and benefits. The development and improvement of methodologies for such evaluations should be promoted.

(d) The role of planted forests and permanent agricultural crops as sustainable and environmentally sound sources of renewable energy and industrial raw material should be recognized, enhanced and promoted. Their contribution to the maintenance of ecological processes, to offsetting pressure on primary/old-growth forest and to providing regional employment and development with the adequate involvement of local inhabitants should be recognized and enhanced.

(e) Natural forests also constitute a source of goods and services and their conservation, sustainable management and use should be promoted.

7. (a) Efforts should be made to promote a supportive international economic climate conducive to sustained and environmentally sound development of forests in all countries, ~~which include, inter alia, change in the unsustainable patterns of production and consumption in all countries, particularly in industrialized countries~~ [the eradication of poverty and the promotion of food security, ~~particularly in developing countries~~].

(b) [Financial resources for economic adjustment should be provided for the other sectors of the economy of developing countries with substantive forest cover which set aside more than their fair share of [undisturbed] [natural] forests for the purpose of conservation].

the promotion of sustainable  
production of products  
and services

[Any developing country possessing a forest cover that exceeds its present economic and ecological needs should benefit from specific financial arrangements to ensure sustainable development particularly of the forestry sector].

[Resources should be provided for investment in globally beneficial forest conservation through cooperative arrangements between countries and appropriate market-based mechanisms, and in the context of internationally agreed strategies].

8. (a) Efforts should be undertaken towards the greening of the world [by all countries] [in all geographical areas] [, particularly] [notably] [in developed countries], [which have in the past so destroyed their extensive forests and continue to do so by acid rains] to increase their forest cover [, and these countries should take positive and transparent actions to increase their forest cover through reforestation and afforestation [and conservation of existing forests] [as well as maintaining, as far as practicable, existing forest cover] [where beneficial]. [In this context, cooperative arrangements between countries for economically efficient joint implementation of forest management activities should be encouraged.]

(b) Efforts to maintain and increase forest cover and forest productivity should be undertaken in ecologically, economically and socially sound ways through the rehabilitation, reforestation and re-establishment of trees and forests on unproductive, degraded and deforested lands, as well as through the management of existing forest resources.

(c) The implementation of national policies and programmes aimed at forest management, conservation and sustainable development, particularly in developing countries, should be supported by international financial and technical cooperation, including through the private sector, where appropriate.

(d) [Sustainable forest management and use should be carried out in accordance with [internationally accepted] [formally agreed in multilateral forums] environmentally sound [national] guidelines.]

(e) Forest management should be integrated with management of adjacent areas so as to maintain ecological balance and sustainable productivity.

(f) National policies and/or legislation aimed at management, conservation and sustainable development of forests should include the protection of [ecologically viable] representative or unique examples of forests, including primary/old-growth forests, cultural, spiritual, historical, religious and other unique valued forests of national importance.

(g) [Availability of biological resources, including genetic material, shall be with due regard to the sovereign rights of the countries where the forests are located and to the sharing of technology and profits from biotechnology products, for example, pharmaceutical, that are derived from these resources.] (note: subject to convention on biodiversity)



(h) National policies should ensure that environmental impact assessments should be carried out where [government] actions are likely to have significant adverse impacts on important forest resources.

9. (a) [The external indebtedness, in particular of developing countries, [the phenomenon of net transfer of resources from developing to developed countries], the inaccurate economic valuation of forest products and the lack of effective market forces are among the major factors that reduce the capacity and ability of [developing] countries to manage, conserve and develop their forest resources, and national and international policies should be devised to redress such problems in the broader context of a supportive international economic environment.]

Alternative: [The external indebtedness, in particular of developing to developed countries, the phenomenon of net transfer of resources to developed countries, the inadequate prices for forest products below full replacement cost, and the lack of effective market forces are among the major factors that reduce the capacity and ability of developing countries to manage, conserve and develop their forest resources, and international policies should be devised to redress such problems in the broader context of a supportive international economic environment.]

(b) The problems that hinder efforts to attain the conservation and sustainable use of forest resources and that stem from the lack of alternative options available to local communities, in particular the urban poor and poor rural populations who are economically and socially dependent on forests and forest resources, should be addressed by Governments and the international community.

(c) [Policy formulation with respect to forests should take account of the pressures and demands imposed on forest ecosystems and resources from causes outside the forest sector, both domestically and internationally, and means of dealing with these pressures and demands should be [sought] [considered]].

10. [Developing countries should be compensated for the opportunity cost foregone [, including historical loss of primary forest cover,] and the comparatively higher cost entailed [in the short term by] [international cooperation is required to assist developing countries in meeting the higher cost entailed in] [increasing forest cover and sustainable management and conservation of their forest resources [in order to maintain biological diversity and climatic stability].]

11. [[New] [Adequate] and additional] financial resources should be provided to developing countries through [existing mechanisms both bilateral and multilateral] [a global fund] to enable them to sustainably manage, [enhance], conserve and develop their forests' resources, including afforestation, reforestation and combating deforestation, forest and land degradation.

12. [The transfer of environmentally sound [appropriate] technology to developing countries], [Technology cooperation in environmentally sound

technologies] [, including on concessional and preferential terms,] [Joint development of technology relevant to the conservation and sustainable utilization of biological diversity, including genetic material in gene banks, as well as those technologies that make use of forest resources including biological resources and genetic material for other purposes such as pharmaceuticals etc.] should be promoted to enable developing countries to enhance their endogenous capacity and to better manage, conserve and develop their forest resources.

13. (a) Scientific research, forest inventories and assessments, carried out by national institutions which take into account, where relevant, biological, physical, social, and economic variables and the technological development as well as its application in the field of sustainable forest management, conservation and development, should be strengthened through effective modalities, including international cooperation. In this context, attention should also be given to research and development of sustainably harvested non-wood products.

(b) National and, where appropriate, regional and international institutional capabilities in education, training, science, technology, economics, anthropology and social aspects of forests and forest management are essential to the conservation and sustainable development of forests and should be strengthened.

(c) International exchange of information on the results of forest and forest management research and development should be enhanced and broadened, as appropriate, making full use of education and training institutions, including those in the private sector.

(d) Appropriate indigenous capacity and local knowledge regarding the conservation and sustainable development of forests should, through institutional and financial support, and in collaboration with the people in local communities concerned, be recognized, respected, recorded, developed [compensated] and, as appropriate, introduced in the implementation of programmes.

14. (a) Trade in forest products ~~{should}~~ ~~[must]~~ be ~~[conducted in a manner]~~ <sup>based on non-discriminatory and</sup> consistent with international trade law and practices, ~~[as embodied for example~~ <sup>in the</sup> ~~in the General Agreement on Tariffs and Trade and its subsidiary agreements].~~ <sup>General Agreement on Tariffs and Trade and its subsidiary agreements]</sup>  
Alternative (a) <sup>Products should be facilitated</sup>

Trade in forest products [must] [should] be [based on non-discriminatory and multilaterally agreed rules and procedures] [consistent with international trade law and practices]. [In this context, [orderly and] free international trade in forest products should be facilitated.]

(b) ~~[Removal of tariff barriers and impediments to]~~ <sup>the</sup> provision of better market access and better prices for higher value-added ~~[sustainably managed]~~ forest products and their local processing should be encouraged to

enable producer countries to better conserve and manage their renewable forest resources.

(c) Incorporation of environmental costs and benefits into market forces and mechanisms, in order to achieve forest conservation and sustainable development, should be encouraged both domestically and internationally.

(d) Forest conservation and sustainable development policies should be integrated with economic, trade [and other relevant] policies.

(e) [[Subsidies,] [protectionism] [and lower export revenues] [and other governmental interventions] that encourage [unnecessary] deforestation and unsound forest practices should be [eliminated] [discouraged], wherever practicable, [and subsidies or incentives encouraging sound practices should be encouraged where applicable].]

See  
original  
text -  
clarified

Alternative: [Fiscal, trade and other governmental interventions that encourage unnecessary deforestation and unsound practices should be eliminated [wherever practicable]. Financial or other incentives encouraging sound forest management practices should be introduced [where applicable].]

15. (a) [All forms of unilateral action to restrict and/or ban the use of timber and other forest products in international trade should be removed, as such actions are counter-productive in terms of long-term sustainable forest management [, and relevant national legislation should be promulgated to prohibit all such unilateral restrictions and/or bans].]

(b) [Orderly and] free international trade in forest products [from sustainably managed forest resources] should be facilitated.

16. Pollutants, particularly air borne pollutants, including those responsible for acidic deposition, that are harmful to the health of forest ecosystems at the local, national, [trans-boundary] and global levels should be [strictly] controlled [, where necessary].

17. [Forests constitute a [significant] reservoir of carbon and [their role in the global carbon cycle] should be [recognized] [taken into account] and considered [as appropriate] [in the development of national forests policies and plans].]

14. (e) [Fiscal, trade, industrial transportation and other policies and practices that may lead to forest degradation, [including deforestation] should be avoided. Economic or other incentives aimed at sound forest management practices should be encouraged.]<sup>2</sup>

## GUIDING PRINCIPLES FOR FORESTS

### **SUMMARY**

Canada has been at the forefront of the movement to draft Guiding Principles for Forests from the outset of the UNCED process. In preparation for the fourth PrepCom, Forestry Canada had undertaken a thorough national consultation process to formulate the Canadian position. Unfortunately however, the negotiations on Forest Guiding Principles at PrepCom IV were to make relatively little use of the extensive preparatory work done in Canada.

Furthermore, to the disappointment of Canada and most other nations, what were expected to be the final series of negotiations proved to be a difficult and largely inconclusive series of exchanges. Negotiations quickly bogged down into a deeply-rooted political debate between North and South. The minority of delegations within both developed and developing camps which assumed extreme positions succeeded in transforming the discussions into a highly-polarized debate for much of the negotiations. The moderates who made up the majority in both North and South were only able to regain the upper hand toward the end of the negotiations, when insufficient time remained to conclude.

At the end of PrepCom IV, at least 25 percent of the text still remained to be negotiated. In addition, delegates left the final PrepCom without defining a procedure to complete negotiation of the text and therefore some mechanism to wrap-up negotiations will have to be determined during the intercessional period.

### **DOCUMENTATION**

A/CONF.151/PC/WGI/L.43 Adopted Agenda 21 chapter: Land Resources: Deforestation (replaces PC/WG.1/CRP.14/Rev.2).

### **CANADIAN OBJECTIVES**

At the outset of PrepCom IV, Canadian objectives for Guiding Principles for Forests were:

- 1) to seek to carefully balance economic opportunities and our environmental responsibilities toward forest ecosystems;
- 2) to seek to promote conservation, management and sustainable development of forests;

- 3) to seek to promote conservation and protection of representative and unique forest areas and protection of biodiversity;
- 4) to seek to facilitate international trade in forest products;
- 5) to seek to encourage development assistance based on sound environmental management;
- 6) to seek to promote multiple values of forests to meet present and future social, economic, ecological, cultural and spiritual needs;
- 7) to seek to recognize and meet the needs of forest dwellers, in particular aboriginal peoples;
- 8) to seek to strengthen forest research in specific areas such as sustainable development and management for multiple values;
- 9) to seek to improve national and international policy development in respect to forests;
- 10) to seek to promote stronger leadership and effectiveness of cooperation within and among international institutions dealing with forestry;
- 11) to avoid language permitting the use of trade measures to achieve any of the above objectives; and
- 12) if not covered under Agenda 21, "Deforestation" item, to seek to obtain an international commitment to negotiate a legally-binding international Convention or Instrument on Forests, including the formulation of internationally-accepted criteria for sustainable forest management.

#### **PREPCOM DISCUSSION**

At PrepCom IV, the Canadian Delegation was obliged to watch its longstanding leadership based on its substantive contribution undermined as the G-77, led by an aggressive, often belligerent Malaysian delegation, effectively politicized the debate and controlled the proceedings through procedural antics. The general politicization of the discussions by the G-77 (unintentionally reinforced by the tough position of the USA), made progress difficult from an early stage in the negotiations. Even attempts to break into a smaller contact group did not serve to facilitate the

dialogue. The gap between North and South, opened wide from the beginning of discussions and, despite some rapprochement toward the end of the negotiations, was to remain unbreechable throughout PrepCom IV.

The politicization of the Forest Guiding Principles was much more significant than in any of the Agenda 21 items considered at PrepCom IV. This may have been due in part to the lack of direct connection between the Guiding Principles and a development assistance package for developing countries, as was the case in Agenda 21. In this regard, much of the Forest Guiding Principles debate was similar to the ideological battle fought between North and South in the context of the Earth Charter, where political considerations were also paramount.

The Guiding Principles negotiations are an important forum for the Northern Countries to express their interest in preserving the global ecological balance and for the South to assert its concern for sovereign control of resources for development. The document therefore strikes to the very heart of the North-South dialogue. As such, the Guiding Principles represent a significant political document for developed and developing countries alike, within which forests and forestry now assume a distant second place to political considerations.

In addition to grinding progress to a snail's pace, the highly-politically nature of the negotiations also served to distort some of the technical content of the document. At the end of PrepCom IV, for example, the Guiding Principles document contains very few references to natural forests, which the G-77 fiercely resisted on somewhat fuzzy political grounds, despite the fact that natural forests make up the overwhelming proportion of the world's forest cover and are thus the primary subject of the entire text. Hopefully some of the technical inconsistencies introduced in the politically-charged atmosphere of PrepCom IV can be cleaned up during final negotiations prior to signing of the document by world leaders in Rio.

Although the negotiating sessions for Guiding Principles at PrepCom IV were disappointing for Canada and many other nations, by end of negotiations, the unproductive Malaysian lead was being openly challenged by other G-77 nations. At the same time, a greater sense of common purpose was developing amongst developed and developing nation delegations resulting in the pace of negotiations beginning to pick up somewhat. These positive developments leave some measure of hope for resolution of the numerous problems still remaining, if the Guiding Principles are to be ready in time for the Rio Conference.

## OUTCOME AND ASSESSMENT

With the G-77 assuming an active lead in the negotiations by introducing its own text and effectively ruling out discussion of new elements, the Canadian delegation was obliged to set aside the proactive stance Canada had intended to pursue at the PrepCom and assume instead a more defensive posture.

The negotiations were not without their positive points, such as a generally-favourable outcome in unbracketing text recognizing the role of indigenous people in the management, conservation and sustainable development of forests. Also, mention of an International Convention for Forests remains in the text, although firmly square-bracketed by the G-77.

However, as a whole, the negotiations at PrepCom IV were a setback to the extent that:

- numerous sections previously thought to be relatively non-controversial became politicized and consumed a disproportionate amount of precious negotiating time needed for resolution of more mainstream problematic areas;
- entire sections of text were left unresolved (some were not even discussed) and remain in brackets;
- no clear path was set for the resolution of outstanding issues prior to the June Conference in Rio.

The text requiring further negotiation can be broken down into four categories as follows:

- i) highly-contentious text related to issues of global concern which the G-77 perceives to represent potential infringement on sovereignty over national resources,
- ii) text which would cease to be controversial if an accommodation could be found within UNCED on North-South transfer of financial resources and technology;
- iii) problematic wording in clauses relating to trade in forest products; and
- iv) a small assortment of other issues, most of which were politicized at PrepCom IV and could be relatively easily negotiated if the will to do so existed.

However, while successful negotiation of the remaining Guiding Principles text will be contingent upon satisfactory conclusion of the cross-cutting issues of financial

resources, technology transfer and institutional follow-up at the general Conference level, such a breakthrough will not necessarily guarantee a positive outcome for the highly-politicized international document which the Guiding Principles have become: the issues dealt with in the Forest Guiding principles extend far beyond the realm of UNCED.

Despite the particularly difficult highly-politicized negotiating atmosphere which prevailed at PrepCom IV for forest Guiding Principles, it remains clear that most nations, including the majority of G-77 countries do wish to have Guiding Principles for signature by heads of state at Rio. At present, there is no venue scheduled for the negotiation of the Guiding Principles text either during the intercessional period leading up to the Rio Conference, or at the Conference itself. However, if sufficient political will remains to negotiate Guiding principles, the form and place of final negotiations can and will be worked out. Much will depend on the outcome of the G-77 meeting scheduled to take place in Kuala Lumpur, Malaysia, later this month. Canada will be sending observers to this meeting who will monitor the discussion on forests with particular attention.





General Assembly

*Interpretes  
WGI/L.43/Ann. 1*

Distr.  
LIMITED

A/CONF.151/PC/WG.I/L.43  
23 March 1992

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE  
UNITED NATIONS CONFERENCE ON  
ENVIRONMENT AND DEVELOPMENT  
Fourth Session  
New York, 2 March-3 April 1992  
Working Group I  
Agenda Item 3 (a)

LAND RESOURCES: DEFORESTATION

Text submitted by the Chairman on the basis of preliminary  
discussions held on document A/CONF.151/PC/100/Add.16

Combating deforestation: options for Agenda 21

(Section II, Chapter 3 of Agenda 21)

Attached is the text of document A/CONF.151/PC/100/Add.16 as it has resulted from negotiations on 18 and 20 March 1992. The paragraphs in the introduction, basis for action and means for implementation have not yet been negotiated. Following the Chairman's proposal, programme area E on International and regional cooperation, included in document A/CONF.151/PC/100/Add.16, has been deleted.

INTRODUCTION

3. The proposed global objective of Agenda 21 on Forests could be \*\*A/CONF.151/WG.I/CRP.13) "to achieve conservation and ensure sustainable management and sustainable development of all forests and tree-based resources to increase their contribution to overall socio-economic development, environmental protection and people's present and future quality of life."\*\*

4. An important consideration, in the context of environment and sustainable development, is that the goods and services to be derived from trees, forests and forest lands are closely linked to areas covered in other sections of Agenda 21 such as those related to agriculture, mountain ecosystems, human settlements, land resources management, desertification control, oceans and .

coastal areas, wildlife management, protection of fragile ecosystems, biodiversity, rural energy, freshwater resources, industrial needs and climate change. Neglecting trees, forests and forest lands will ultimately inflict serious negative impacts on the national human environment and its already fragile ecological and economic balance.

[4 bis In the developing countries the already ongoing Tropical Forestry Action Programme (TFAP) is the key instrument for achieving most of the objectives in the five programme areas. The TFAP is currently being implemented in more than 80 developing countries with the support of the international community.]

5. The activities outlined in this document are very closely related to, and have implications for, many of the programme areas described in other chapters, so an overall integrated approach is therefore necessary when addressing the following programme areas:

(a) Sustaining the multiple roles and functions of all types of forests, forest lands, and woodlands;

(b) Enhancement of the protection, sustainable management and conservation of all forests, and the greening of degraded areas through forest rehabilitation, afforestation, reforestation and other rehabilitative means;

(c) Promoting efficient utilization to recover the full valuation of the goods and services provided by forests, forest lands and woodlands;

(d) Establish and/or strengthen capacities for the planning, assessment and periodical evaluations of forest-related programmes progress, activities, including commercial trade and processes.

#### PROGRAMME AREAS

A. Sustaining the multiple roles and functions of all types of forests, forest lands, and woodlands

##### Basis for action

6. There are major weaknesses in the policies, methods and mechanisms adopted to support and develop the multiple ecological, economic, social and cultural roles of trees, forests and forest lands. In <sup>some</sup> many countries, forest resources are <sup>still being</sup> treated as free goods while in others they have been systematically depleted, impoverishing the quality of life of the people and restricting their options for development. In most developing countries, it is the lack of knowledge on the quality and quantity of forest resources which has led to the over-exploitation of the resource as these resources are normally seen as infinite. Many developed countries are confronted with the effects of air pollution and fire damage on their forests. More effective measures and approaches are often required at the national level to improve and harmonize policy formulation, planning and programming; legislative

*the destruction and degradation of these resources accelerate the impoverishing*

and indigenous people  
measures and instruments; development patterns; participation of the general public, especially women; involvement of youth; roles of the private sector, local organizations, NGOs and cooperatives; development of technical and multidisciplinary skills and quality of human resources; forestry extension and public education; research capability and support; administrative structures and mechanisms, including intersectoral coordination, decentralization, and responsibility and incentive systems; dissemination of information and public relations. This is especially important to ensure a rational and holistic approach to a sustainable and environmentally sound development of forests. The need for securing the multiple roles of forests and forest lands through adequate and appropriate institutional strengthening has been repeatedly emphasized in many of the reports, decisions and recommendations by FAO, ITTO, UNEP, the World Bank, IUCN, and other organizations.

### Objectives

7. Strengthen forest related national institutions, to enhance the scope and effectiveness of activities related to management, conservation and sustainable development of forests, and to effectively ensure sustainable utilization and production of forests' goods and services in both developed and developing countries. By the year 2000, strengthen the capacities and capabilities of national institutions to enable them to acquire necessary knowledge for the protection and conservation of forests as well as in expanding their scope and correspondingly enhancing effectiveness of programmes and activities related to management and development of forests.

8. Strengthen and improve human, technical and professional skills as well as expertise and capabilities to effectively formulate and implement policies, plans, programmes, research and projects on management, conservation and sustainable development of all types of forests and forest based resources, forest lands inclusive, as well as other areas from where forest benefits can be derived.

### Activities

#### Management related:

9. Governments, at the appropriate levels, with the support of regional, sub-regional and international organizations, should enhance institutional capability to promote the multiple roles and functions of all types of forests and vegetation inclusive of other related lands and forest based resources in supporting sustainable development and environmental conservation in all sectors. This should be done wherever possible and necessary by strengthening and/or modifying the existing structures and arrangements, and improving cooperation and the coordination of their respective roles. Some of the major activities in this regard are:

(a) Rationalize and strengthen administrative structures and mechanisms, including provision of adequate levels of staff and allocation of responsibilities, decentralization of decision-making, provision of

infrastructural facilities and equipment, intersectoral coordination and an effective system of communication;

(b) Promote participation of the private sector, labour unions, rural cooperatives, local communities, indigenous people, youth, women, users groups and NGOs in forest related activities, and access to information and training programmes within the national context;

(c) Review and, if necessary, revise measures and programmes relevant to all types of forests and vegetation, inclusive of other related lands and forest based resources and relate them to other land uses and development policies and legislation; promote adequate legislation and other measures as a basis against uncontrolled conversion to other types of land uses;

(d) Develop and implement plans and programmes, including definition of national, and if necessary, regional and sub-regional goals, programmes and criteria for their implementation and subsequent improvement;

(e) Establish, develop and sustain an effective system of forest extension and public education to ensure better awareness, appreciation, and management of forests with regard to the multiple roles and values of trees, forests and forest lands;

(f) Establish and/or strengthen institutions and facilities for forest education and training as well as in forestry industries for developing an adequate cadre of trained and skilled staff at the professional, technical and vocational levels, with emphasis on youth and women.

(g) Establish and strengthen facilities and capabilities for research related to the different aspects of forests and forest products, for example on sustainable management of forests, research on biodiversity, on the effects of, and relations with the impact of climate change on forests, effects of acid rains, traditional uses of forest resources by local populations, and on improving market returns and other non-market values from the management of forests, etc.

Data and information

10. Governments, at the appropriate level, with the assistance and cooperation of international, regional, subregional and bilateral agencies should develop adequate database and baseline information necessary for planning and programme evaluation. The following are some of the more specific activities:

(a) Collect, compile and regularly update and distribute information on land classification and land use, including data on forest cover, areas suitable for afforestation, endangered species, ecological values, biomass and productivity and correlate demographic, socio-economic and forest resources information at micro- and macro-levels, and undertake periodic analysis of forest programmes;

air-borne pollutants, other atmospheric pollution

and indigenous people

where relevant

traditional/indigenous and use values, /...

(b) Establish linkages with other data systems and sources relevant to supporting forest management, conservation and development while further developing or reinforcing existing systems such as geographic information systems as appropriate;

(c) Create mechanism to ensure public access to this information.

International and regional cooperation and coordination:

11. Governments, at the appropriate level, <sup>and other support</sup> and institutions should cooperate in the provision of expertise and funds, promote international research efforts, in particular with a view to enhancing transfer of technology and specialized training and ensuring access to experiences and research results. There is need for strengthening coordination and improving the performance of existing forest related international organizations in providing technical cooperation and support to interested countries for the management, conservation and sustainable development of forests.

Means of implementation

Financial and cost evaluation:

12. Annual estimated funding required to implement these activities is about US\$ 2,500 million for the period 1993-2000. A major part required will need to be financed from national governments, the private sector and in some cases, NGOs.

13. The estimated amount of international financing required, annually, for developing countries has been estimated at US\$ 860 million, of which US\$ 840 million are related to accelerating development and US\$ 20 million for strengthening the capacity of international institutions. Accelerating development would consist of implementing management-related and data/information activities listed above.

Scientific and technological means:

14. The planning, research and training activities specified will form the scientific and technological means for implementing the programme, as well as its output. The systems, methodology and know-how generated by the programme will help improve efficiency. Some of the specific steps involved should include:

(a) Analysis of achievements, constraints and social issues for supporting <sup>programmes</sup> (policy analysis) formulation and implementation;

(b) Analysis of research problems and research needs, research planning and implementation of specific research projects;

(c) Assessment of needs for human resources, skill development and training;

(d) Development, testing and application of appropriate methodologies/approaches in implementing forest policies, programmes and plans.

Human resources development:

15. The specific components of forest education and training will effectively contribute to human resources development. These include:

(a) Launching of graduate and post-graduate degree, specialization and research programmes;

(b) Strengthening of pre-service, <sup>and extension service</sup> and in-service training programmes at the technical and vocational levels, including training of trainers/teachers, and developing curriculum and teaching materials/methods;

(c) Special training for staff of national forest related organizations in aspects such as project formulation, evaluation and periodical evaluations.

Capacity building:

16. This programme area is specifically concerned with capacity building in the forest sector and all programme activities specified contribute to that end. In building new and improved capacities, full advantage should be taken of the existing systems and experience.

<sup>Strengthening</sup>  
B. Enhancement of the protection, sustainable management and conservation of all forests, and the greening of degraded areas, through forest rehabilitation, afforestation, reforestation and other rehabilitative means

Basis for action

17. Forests worldwide have been and are threatened by uncontrolled degradation and conversion to other types of land uses, influenced by increasing human needs; agricultural expansion; environmentally harmful mismanagement, which includes, for example, lack of adequate forest fire control and anti-poaching measures, unsustainable commercial logging, overgrazing and unregulated browsing, harmful effects of airborne pollutants, economic incentives and other measures taken by other sectors of the economy. ~~which may lead to accelerated deforestation and changes in climate.~~ The impacts of loss and degradation of forests are in the form of soil erosion; loss of biological diversity, damage to wildlife habitat and degradation of watershed areas, deterioration of the quality of life and reducing the options for development.

18. The present situation calls for urgent and consistent action for the need to conserve and sustain forest resources. Greening of suitable areas, in all its component activities, is an effective way of increasing public awareness and participation in protecting and managing forest resources. It should

include the consideration of land use and tenure patterns and local needs and should spell-out and clarify the specific objectives of the different types of greening activities.

Objectives

19. Maintain existing forests through conservation and management, and sustain and expand areas under forest and tree cover, in appropriate areas of both developed and developing countries through conservation of ~~native natural~~ forests, protection, forest rehabilitation, regeneration, afforestation, reforestation, tree planting, with a view to maintaining or restoring the ecological balance and expanding their contribution to human needs and welfare.

4.19 bis As appropriate prepare and implement National Forestry Action Programmes and/or plans for the management, conservation and sustainable development of forests. These plans and/or programmes should be integrated with other land-uses. *In this context, country driven National Forestry Action Programmes and/or Plans in the Tropics*

20. Ensure the sustainable management, and where appropriate, conservation of ~~forests~~ existing and future forest resources. *Action Programme are*

*Maintain and*  
21. Increase the ecological, biological, climatic, socio-cultural and economic contributions of forest resources. *currently being implemented in*

21. bis [pending further consultations]  
Activities

*more than 60 countries with the support of the international community.*

Management related:

22. Governments should recognize the importance of categorizing forests, in the framework of long-term forest conservation and management policy, into different forest types and setting up sustainable units in every region/watershed with a view to securing the forest conservation. Governments, with the participation of the private sector, non-governmental organizations, local community groups, indigenous people, <sup>local</sup> government units and the public at large should act to maintain and expand the existing vegetative cover wherever ecologically, socially and economically feasible, through technical cooperation and other forms of support. Major activities to be considered are:

(a) Ensure a sustainable management of all forest ecosystems, including ~~natural forest management and woodlands~~, through improved proper planning, management, and timely implementation of silvicultural operations, including inventory and relevant research as well as rehabilitation of degraded natural forests to restore productivity and environmental contributions giving particular attention to human needs for economic and ecological services, wood-based energy, agroforestry, non-timber forest products and services, watershed and soil protection, wildlife management, and forest genetic resources;

(b) Establish, expand and manage, as appropriate to each national context, Protected Area Systems, which includes systems of conservation units for their environmental, social and spiritual functions and values, including conservation of forests in representative ecological systems and landscapes, old-growth forests, conservation and management of wildlife, conservation of genetic resources involving in situ and ex situ measures and undertaking supportive measures to ensure sustainable utilization of biological resources and conservation of biological diversity and the traditional habitats of indigenous ~~forest people~~ <sup>forest dwellers</sup> and local communities.

primary /

World Heritage Sites under the World Heritage Convention. as appropriate, nomination.

(c) Undertake and promote buffer and transition zone management;

(d) Carry out revegetation in appropriate mountain areas, highlands, bare lands, degraded farm lands, arid and semi-arid lands and coastal areas for combating desertification and preventing erosion problems and for other protective functions and national programmes for rehabilitation of degraded lands, including community forestry, social forestry, agroforestry and silvopasture while also taking into account the role of forests as national carbon reservoirs and sinks;

extent and

(e) Develop industrial and non-industrial forestry plantations in order to support and promote national ecologically sound afforestation and reforestation/regeneration programmes in suitable sites, including up-grading of existing plantations of both industrial and non-industrial and commercial purpose to increase their contribution to human needs and ~~natural forest preservation~~. Measures should be undertaken to promote and provide intermediate yields and to improve the rate of returns on investments in plantation, through interplanting and underplanting valuable crops in plantation;

planted forest

planted forests

planted forests

offset pressure on primary/old growth forest.

(f) Develop/strengthen a national and/or master plan for forest plantations as a priority, indicating inter alia the location, scope, species, specifying area of existing plantation requiring rehabilitation, taking into account the economic aspect, for future plantation development giving emphasis to native species;

planted forests planted forests

(g) Increase protection of forests from pollutants, fire, pests and diseases and other human-made interferences such as forest poaching, mining, and unmitigated shifting cultivation, <sup>uncontrolled</sup> introduction of exotic plant and animal species as well as develop and accelerate research for a better understanding of problems relating to the management and regeneration of all types of forests. Strengthen and/or establish appropriate measures to [check] [assess] inter-border movement of plants and related materials;

(h) Stimulate development of urban forestry for greening of urban, peri-urban and rural human settlements for amenity, recreation and production purposes and for protecting trees and groves;

(i) Launch or improve opportunities for involvement of all people, including youth, women, indigenous people and local communities in the

participation



formulation, development and implementation of forest-related programmes and other activities taking due account of the local needs and cultural values;

(j) Limit and aim to halt destructive shifting cultivation by addressing the underlying social and ecological causes.

Data and information:

23. The management-related activities should involve collection, compilation and analysis of data/information, including baseline surveys. The following are some of the specific activities:

(a) Carry out surveys and develop and implement land use plans for appropriate greening/planting/afforestation/reforestation/forest rehabilitation;

(b) Consolidate and update land use and forest inventory and management information for management and land use planning of wood and non-wood resources, including data on shifting cultivation and other agents of forest destruction;

(c) Consolidate information on genetic resources and related bio-technology, including surveys and studies as necessary;

[(cbis) Carry out surveys and research on local/indigenous knowledge of trees and forests and their uses to improve the planning and implementation of sustainable forest management;]

(d) Compile and analyse research data on species/site interaction of species used in forest plantations and assess the potential impact on forests of climatic change as well as effects of forests on climate, and initiate in-depth studies on the carbon cycle relating to different forest types to provide scientific advice and technical support;

(e) Establish linkages with other data/information sources that relate to sustainable management and use of forests and improve access to data and information;

(f) Develop and intensify research to improve knowledge and understanding of problems and natural mechanism related to the management and rehabilitation of forests, including research on fauna and its interrelation with forests;

(g) Consolidate information on forest conditions and site-influencing immissions and emissions.

International and regional cooperation and coordination:

24. Greening of appropriate areas is a task of global importance and impact. The international and regional community should provide technical cooperation and other means for this programme. Specific activities of international nature, in support of national efforts, ~~should~~ include the following:

*to be considered*

(a) Increase cooperative actions to reduce pollutants and trans-boundary impacts affecting the health of trees and forests and conservation of representative ecosystems;

(b) Coordinate regional and subregional research on carbon sequestration, air pollution and other environmental issues;

(c) Document and exchange information/experience for the benefit of countries with similar problems and prospects;

(d) Strengthen the coordination and improve the capacity and ability of intergovernmental organizations such as FAO, ITTO, UNEP, UNESCO, to provide technical support for the management, conservation and sustainable development of forests, including the support for the renegotiation of the International Tropical Timber Agreement (ITTA) of 1983 due in 1993 or 1994

Means of implementation

Financial and cost evaluation:

25. The estimated annual financing required to implement these activities is about US\$ 10 billion for the period 1993-2000. Of this amount about US\$ 3.7 billion in international financing will be needed for developing countries. From that amount US\$ 3,510 million are related to accelerating development; US\$ 150 million are needed for global environmental issues and US\$ 20 million for strengthening the capacity of international institutions.

Scientific and technological means:

26. Data analysis, planning, research, transfer/development of technology and/or training activities form an integral part of the programme activities, providing the scientific and technological means of implementation. National institutions should:

(a) Develop feasibility studies and operational planning related to major forest activities;

(b) Develop and apply environmentally sound technology relevant to the various activities listed;

(c) Increase action related to genetic improvement and application of biotechnology for improving productivity and tolerance to environmental stress and including, for example, tree breeding, seed technology, seed procurement networks, germplasm banks, "in vitro" techniques, in situ and ex situ conservation.

Human resources development:

27. Essential means for effectively implementing the activities include training and development of appropriate skills, working facilities and conditions, public motivation and awareness. Specific activities include:

(a) Provide specialized training in planning, management, environmental conservation, biotechnology, etc;

(b) Establish demonstration areas to serve as models and training facilities;

(c) Support local organizations, communities, NGOs, private land owners, in particular women, youth, farmers and indigenous people/shifting cultivators, through extension, provision of inputs and training.

Capacity building:

28. The national Governments, the private sector, local organizations/communities, labour unions and NGOs should develop capacities, duly supported by relevant international agencies, to implement the programme activities. Such capacity should be developed and strengthened in harmony with the programme activities. Capacity-building activities include policy and legal frameworks, national institution building, human resource development, development of research and technology, development of infrastructure, enhancement of public awareness, etc.

new wording  
proposed -  
to follow

c. Promoting efficient utilization and assessment to recover the full valuation of the goods and services provided by forests, forest lands and woodlands

Basis for action

29. The vast potential of forests and forest lands as a major resource for development is not yet fully realized. Improved management of forests can increase the production of goods and services and in particular the yield of wood and "Non-Wood Forest Products", thus helping generate additional employment and income, addition of value through processing and trade of forest products, increase contribution to foreign exchange earnings, and increase return on investment. Forest resources, being renewable, can be sustainably managed in a manner that is compatible with environmental conservation. It is also possible to increase the value of forests through "non-damaging" uses such as eco-tourism and managed supply of genetic materials. There is need for concerted action in order to increase people's perception of the value of forests and of the benefits they provide. The survival of the forests and their continued contribution for human welfare depends highly on succeeding in this endeavour.

Objectives

30. Improve recognition of the social, economic and ecological values of trees, forests and forest lands including the consequences of the damage caused by the lack of forest. Promote methodologies in view to incorporate social, economic and ecologic values of trees, forest and forest lands into the national economic accounting systems. Ensure their sustainable management in a way which is consistent with land use, environmental considerations and development needs.

31. Promote efficient, rational and sustainable utilization of all types of forests and vegetation inclusive of other related lands and forest-based resources, including through the development of efficient forest-based processing industries, value-adding secondary processing and trade in forest products, based on sustainably managed forest resources and in accordance with plans which integrate all wood and non-wood values of forests.

*31 bis* Promote more efficient and sustainable use of forest and trees for fuelwood and energy supply.

*31 ter* Promote more comprehensive use and economic contributions of forest areas by incorporating eco-tourism into forest management and planning.

Activities

Management related:

32. Governments, <sup>and where appropriate with the support of</sup> the private sector, scientific institutions, <sup>indigenous people</sup> NGOs, cooperatives and entrepreneurs should undertake the activities below, properly coordinated at the national level along with financial and technical cooperation from international agencies. Major activities to be considered are:

(a) Carry out detailed investment studies, supply-demand harmonization and environmental impact analysis to rationalize and improve trees and forest utilization and to develop and establish appropriate incentive schemes and regulatory measures, including tenurial arrangements, to provide a favourable investment climate and promote better management;

(b) Formulate scientifically sound criteria and guidelines for the management, conservation and sustainable development of all types of forests;

(c) Improve environmentally sound methods and practices of forest harvesting which are ecologically sound and economically viable, including planning and management, improved use of equipment, storage and transportation to reduce and if possible maximize the use of waste, and improve value of both wood and non-wood forest products;

(d) Promotion of a better use and development of natural forests and woodlands, including forest plantations, wherever possible, through

*planted forests*

appropriate and environmentally sound and economically viable activities including silvicultural practices and management of other plant and animal species;

(e) Promote and support the downstream processing of forest products to increase retained value and other benefits;

(f) Promote/popularize non-wood forest products and other forms of forest resources, apart from fuelwood (e.g. medicinal plants, dyes, fibres, gums, resins, fodder, cultural products, rattan, bamboo etc.) through programmes and social forestry/participatory forest activities, including research on their processing and uses;

(g) Develop, expand and/or improve effectiveness and efficiency of forest-based processing industries, both wood and non-wood based, involving such aspects as efficient conversion technology and improved sustainable utilization of harvesting and process residues; promotion of underutilized species in natural forests through research, demonstration and commercialization; promotion of value-adding secondary processing for improved employment, income and retained value; and promotion/improvement of markets for, and trade in, forest products through relevant institutions, policies and facilities.

(h) Promote and support the management of wildlife, including farming, as well as to encourage and support the husbandry and cultivation of wild species (e.g. for food, hides and skin, bones and horns, eco-tourism, etc.), for improved rural income and employment, ensuring economic and social benefits without harmful ecological impacts;

(i) Promote appropriate small-scale forest-based enterprises for supporting rural development and local entrepreneurship;

(j) Improve and promote methodologies for the comprehensive assessment that will capture the full value of forests with a view to including this value in the market-based pricing structure of wood and non-wood based products;

(k) Harmonize sustainable development<sup>needs</sup> of forests with national development and trade policies which are compatible with the ecologically sound use of forest resources, using for example the ITTO Guidelines for Sustainable Management of Tropical Forests;

(l) Develop, adopt and strengthen national programmes for accounting the economic value of forests.

*and non-economic*  
Data and information:

33. The objectives and the management related activities presuppose data and information analysis, feasibility studies, market surveys and review of technological information. Some of the relevant activities include:

(a) Undertake analysis of supply and demand for forest products and services, to ensure efficiency in their utilization, wherever necessary;

(b) Carry out investment analysis and feasibility studies, including environmental impact assessment, for establishing forest-based processing enterprises;

(c) Conduct research on the properties of currently underutilized species for their promotion and commercialization;

(d) Support market surveys of forest products for trade promotion and intelligence;

(e) Facilitate the provision of adequate technological information as a measure to promote better utilization of forest resources.

International and regional cooperation and coordination:

34. Cooperation and assistance of international agencies and the international community in technology transfer, specialization, and promotion of fair terms of trade, without resorting to unilateral restrictions and/or bans on forest products contrary to GATT <sup>to actions contrary to multilateral trade agreements,</sup> agreements, <sup>and other</sup> the application of appropriate market mechanisms and incentives will help in addressing global environmental concerns. Strengthening of the coordination and performance of existing international organizations and in particular FAO, UNIDO, UNESCO, UNEP, ITC/UNCTAD/GATT, ITTO and ILO for providing technical assistance and guidance in this programme area is another specific activity.

Means of implementation

Financial and cost evaluation:

35. Estimated annual financing required to implement the programme activities is about US\$ 18 billion, for the period 1993-2000. The bulk of it is expected to be invested by the private sector. Part of it will also be invested by the national governments. Smaller investments will come from cooperatives and households. International assistance will, however, act as a catalyst and stimulant to promote development.

36. The amount of international financing, required annually by developing countries has been estimated at US\$ 880 million of which US\$ 660 million are related to accelerated development; US\$ 200 million for global environmental issues and US\$ 20 million for strengthening the capacity of international organizations.

Scientific and technological means:

37. The programme activities pre-suppose major research efforts and studies as well as improvement of technology. This should be coordinated by national governments in collaboration with, and supported by, relevant international agencies and institutions. Some of the specific components include:

- (a) Research on properties of wood and non-wood products and on their uses, to promote improved utilization;
- (b) Development and application of environmentally sound and less-polluting technology for forest utilization;
- (c) Models and techniques of outlook analysis and development planning;
- (d) Scientific investigations on the development and utilization of non-timber forest products;
- (e) Appropriate methodologies to comprehensively assess the value of forests.

Human resources development:

38. The success and effectiveness of the programme depends on availability of skilled personnel. Specialized training is an important factor in this regard. New emphasis should be given to the incorporation of women. Human resource development for programme implementation, in quantitative and qualitative terms should include:

- (a) Develop the required specialized skills to implement the programme, including establishment of special training facilities at all levels;
- (b) Introduce/strengthen refresher training courses, including fellowships and study tours, to update skills and technological know-how and improve productivity;
- (c) Strengthen capability for research, planning, economic analysis, periodical evaluations and evaluation, relevant to improved utilization of forest resources;
- (d) Promote efficiency and capability of private and cooperative sectors through provision of facilities and incentives.

Capacity building:

39. Capacity building, including strengthening of existing capacity, is implicit in the programme activities. Improving administration, policy and plans, national institutions, human resources, research and scientific capabilities, technology development, and periodical evaluations and evaluation are important components of capacity building.

- D. Establish and/or strengthen capacities for the planning, assessment and periodical evaluations of forests and related programmes, progress, activities, including commercial trade and processes

Basis for action

40. Assessment and periodical evaluations are essential components of long-term planning, for evaluating effects, quantitatively and qualitatively, and for rectifying inadequacies. This mechanism, however, is one of the often neglected aspects of forest resources, management, conservation and development. In many cases, even the basic information related to the area and types of forests, existing potential and volume of harvest etc. is lacking. In many developing countries, there is a lack of structures and mechanisms to carry out these functions. There is an urgent need to rectify this situation for a better understanding of the role and importance of forests and to realistically plan for their effective conservation, management, regeneration, sustainable development.

Objectives

41. Strengthen or establish systems for the assessment and periodical evaluations of forest and forest lands with a view to assessing the impacts of programmes, projects and activities on the quality and extent of forest resources, land available for afforestation, land tenure, and to integrate the systems in a continuing process of research and in-depth analysis, while ensuring necessary modifications and improvements for planning and decision-making process. Specific emphasis should be given to the participation of the rural people in these processes.

42. Provide the <sup>economic operators</sup> ~~economic operators~~, planners, decision makers and local communities with sound and updated adequate information on forest and forest land resources.

Activities

Management related:

43. Governments and institutions in collaboration, where necessary, with appropriate international agencies and organizations, universities and NGOs, should undertake assessments and <sup>systematic observations</sup> ~~periodical evaluations~~ of forests and related programmes and processes with a view to their continuous improvement. This should be linked to related activities of research and management and, wherever possible, be built upon existing systems. Major activities to be considered are:

(a) <sup>carry systemic evaluations on</sup> ~~periodically evaluate~~ the quantitative and qualitative situation and changes of forest cover and forest resources endowments, including land classification, land use and its status updates, at the



appropriate national level, and link this activity, as appropriate, with planning as a basis for policy and programme formulation;

(b) Establish national assessment and <sup>Systematic observation</sup> ~~periodical evaluations~~ systems and evaluation of programmes and processes, including establishment of definitions, standards, norms, and intercalibration methods, and capability for initiating corrective actions as well as improving formulation and implementation of programmes and projects;

(c) Make estimates of impacts of activities affecting forestry developments and conservation proposals, in terms of key variables such as developmental goals, benefits and costs, contributions of forests to other sectors, community welfare, environmental conditions and biological diversity and their impacts at the local, regional and global levels where appropriate, to assess the changing needs of countries;

(d) Carry out studies and investigations regarding influence of forests on carbon storage, climatic changes, greenhouse gases, etc., and on the effects of those processes on trees and forests;

(e) Develop national systems of forest resource assessment and valuation, including necessary research and data analysis, which account for, where possible, the full range of wood and non-wood forest products and services, and incorporate results in plans and strategies and, where feasible, in national systems of accounts and planning;

(f) Establish necessary inter-sectoral and programme linkages, including improved access to information in order to support a holistic approach to planning and programming.

Data and information:

44. Reliable data and information are vital to this programme. The national Governments, in collaboration, where necessary, with relevant international agencies, should, as appropriate, undertake to continuously improve data and information and ensure its exchange. Major activities to be considered are:

(a) Collect, consolidate and exchange existing information and establish baseline information on aspects relevant to this programme;

(b) Harmonize the methodologies for programmes involving data and information activities to ensure accuracy and consistency;

(c) Undertake special surveys on, for example, land capability and suitability for afforestation action;

(d) Enhance research support and improve access to and exchange of research results.

International and regional cooperation and coordination:

45. The international community should extend to the Governments concerned necessary [technical and financial] support for implementing this programme, including the following:

- consideration of*
- (a) Establish conceptual framework and formulate acceptable criteria, norms and definitions for periodical evaluations and assessment of forest resources; *systematic observations*
- and strengthen*
- (b) Establish national institutional coordination mechanisms for forest assessment and periodical evaluations activities; *systematic observations*
- (c) Strengthen existing regional and global networks for exchange of relevant information where existing mechanisms cannot be strengthened to perform the task;
- and ability and improve the performance*
- (d) Strengthen the capacity of existing international organizations such as FAO, ITTO, UNEP, UNESCO and UNIDO to provide technical support and guidance in this programme area. *and (CGIAR) ... and other organizations*

Means of implementation

Financial and cost evaluation:

46. Estimated annual financing required to implement the activities is about US\$ 750 million for the period 1993-2000. About 70 per cent of the required financing will come from national governments and from the private sector. The amount of annual international financing required, by developing countries has been estimated at US\$ 230 million, of which US\$ 180 million are related to accelerating development, US\$ 30 million for global environmental issues and US\$ 20 million for strengthening the capacity of international organizations.

47. Accelerating development consists of implementing the management-related and data/information activities cited above. Activities related to global environment issues are those which will contribute to the global information for assessing/evaluating/addressing environmental issues on worldwide basis. Strengthening the capacity of international institutions consists of enhancing the technical staff and the executing capacity of several international organizations in order to meet the requirements of countries.

Scientific and technological means:

48. Assessment and periodical evaluations activities involve major research efforts, statistical modelling and technological innovation. These have been internalized into the management-related activities. The activities in turn will improve the technology and scientific content of assessment and periodical evaluations. Some of the specific scientific and technological components included under the activities are:

(a) Development of technical, ecological and economic methods and models related to periodical evaluations and evaluation;

(b) Development of data systems, data processing and statistical modelling;

(c) Remote sensing and ground surveys;

(d) Development of Geographic Information Systems (GIS);

(e) Assessment and improvement of technology.

49. These are to be linked and harmonized with similar activities and components in the other programmes.

Human resources development:

50. The programme activities foresee the need, and include provision for human resource development in terms of specialization (e.g. the use of remote sensing, mapping, statistical modelling), training, technology transfer, fellowships, and field demonstrations.

Capacity building:

51. The national governments in collaboration with appropriate international agencies and institutions should develop the necessary capacity for implementing this programme. This should be harmonized with capacity building for other programmes. Capacity building should cover such aspects as policies, public administration, national level institutions, human resource and skill development, research capability, technology development, information system, programme evaluation, intersectoral coordination and international cooperation.

52. Funding of international and regional cooperation. The estimated investment required annually to implement international and regional cooperation is estimated at about US\$ 750 million, for the period 1993-2000. Nearly 70 per cent of the required financing would come from international sources. The amount of international financing required annually has been estimated to be US\$ 530 million of which US\$ 430 million are related to accelerating development; US\$ 80 million for global environmental issues and US\$ 20 million for strengthening the capacity of international organizations.

-----



## DESERTIFICATION

### **SUMMARY**

The issue of desertification was known at the outset of PrepCom IV to be of great interest to the African nations, which considered that the subject had received inadequate attention at previous PrepComs. The African Group demonstrated the importance which its members attached to the item by submitting a series of revisions to the Secretariat document. The African text, which contained a wide range of largely non-controversial, well-considered, technically-substantive additions, was warmly received by all delegations and quickly became the focus of the debate on desertification.

While the main body of the report, including the African proposals, was adopted with relative ease, the debate on desertification was marked with one controversy which developed into one of the primary sticking-points of PrepCom IV: a Convention on Desertification. An accommodation was found to address the concern of other countries affected by desertification, by expanding the original African proposal of a convention for Africa to a global convention with regional protocols, with priority to Africa. However, throughout the proceedings of the PrepCom, most donor nations were unconvinced that a convention was the sole option for combatting desertification, as strongly asserted by the African Group. Despite numerous attempts to reach consensus, lack of flexibility on the part of African Group and continuing scepticism within the donor delegations resulted in an impasse. The June Rio Conference will therefore be considering a bracketed section within the Desertification Agenda 21 item proposing a global convention for desertification.

### **DOCUMENTATION**

A/CONF.151/WG.I/L.39/Rev.1 Adopted Agenda 21 chapter: Combatting Deforestation and Drought (replaces PC/100/Add.17).

### **CANADIAN OBJECTIVES**

Prior to PrepCom IV, the desertification item was not considered to be a high priority for Canada at UNCED and the Secretariat paper was not considered to be controversial. Accordingly, the series of eight Canadian objectives were relatively modest, concentrating primarily on strengthening the technical and policy content of the document. These objectives were all met to varying degrees.

However, with the introduction of the new element of a Desertification Convention, Canadian objectives were rapidly adjusted to reflect the important linkages with between a potential Desertification Convention and Canadian development assistance programmes and the unexpected strategic opportunity presented to advance a top Canadian objective of pursuing an International Forests Convention, through potential linkage with a convention for desertification.

#### PREPCOM DISCUSSION

Discussion of the main desertification item, which included substantial (largely forestry-oriented) additions from the African Group, was largely non-controversial and proceeded apace. The only issue of concern to Canada under the Desertification item was the question of a possible convention on desertification.

Further to the declaration of African Ministers in Abidjan, in November, 1991, the African Group tabled text requesting that UNCED recognized the pressing need to negotiate a Convention for Desertification for Africa. Although there was widespread recognition of the need to combat desertification, especially in Africa, it soon became clear that the African proposal did not enjoy universal acceptance. Various non-African G-77 delegations, as well as the Russian Federation on behalf of the CIS, insisted that such a convention be of a global scope. Donor nations, for their part, while underlining their acceptance of the importance of a renewed effort to overcome desertification in Africa, virtually all held serious reservations about the African assertion that a convention was the only mechanism for addressing the problem.

African representatives repeatedly stated that past initiatives such as the 1977 Plan of Action to combat desertification had met with only very limited success in halting desertification and had proven to represent unsatisfactory methods of addressing the problem. From the African standpoint, therefore, the situation with regard to desertification in Africa is so grave that only radical measures, reaching far beyond those attempted in the past are acceptable. The spokespersons for the African group freely admitted that their request was relatively ill-defined at this stage. Nevertheless, they were insistent that the importance of the issue was such that a convention was the only means of sufficient breadth and depth remaining which could effectively mobilize anti-desertification efforts. According to the African Group, it therefore followed that the need for a convention was obvious and non-

controversial: the only issue which remained was the nature of the convention itself.

For the donors, the proposal for a convention proved to be much more controversial than the Africans had anticipated. Some of the major factors complicating donor consideration of a convention for desertification were:

- a) uncertainty about precisely what the Africans were requesting and lingering doubts about the African rationale of why a convention was the only acceptable solution;
  - b) most donors believe that desertification is mostly only a reflection of a larger problem of poverty and unsustainable rural development, rather than constituting the main issue at stake: accordingly, if the genesis of the problem is mis-identified, a Convention could well result in continued mis-direction of development assistance;
  - c) lack of precise instructions on the topic within the donor country delegations due to the fact that a request of this sort was not expected at this late stage in the UNCED process;
  - d) initial confused messages to the Africans from the donor community, largely brought about by the lack of consistency in the position of one of the main donors active in anti-desertification programmes in Africa (France): this was subsequently corrected as a common approach developed among donors delegations during the course of the PrepCom;
  - e) the incompatibility of the proposal for a Desertification Convention with the parameters for global funding under GEF;
  - f) the premature tabling of a compromise text, based on the Abidjan Declaration, which, once presented too early in the consultation process, left neither donor nor African delegations room to manoeuvre for the remainder of the PrepCom.
- and
- g) questions among some donor delegations, notably Canada, as to why the rationale applied by the Africans to a Desertification Convention were not applied to a Forests Convention.

**OUTCOME AND ASSESSMENT**

During subsequent discussions within the Working Group and amongst a smaller contact group a compromise agreement was reached between the Africans and other G-77 members on the need for a global convention with regional protocols, of which the most urgent, requiring immediate action would be for Africa. However, throughout the deliberations at PrepCom IV, donors remained unconvinced by the African argumentation asserting that a convention was the only acceptable means of addressing desertification. Donors continued to believe that a review of the problem, with a wider range of options which could include legal instruments, would constitute a basic minimum for further donor consideration of the issue. With the African and donor delegations unable to reach a common ground despite the many attempts made to seek consensus on the issue, the key issue of a Desertification Convention was left in square brackets, for final decision at the Earth Summit in Rio.

Agreement to pursue a convention, or some form of compromise solution, will be one of the most important measures of success of the UNCED process from the African perspective. In view of the significance of this issue to the G-77, and notably the Africans, as well as the undeniable urgency of a renewed effort to address desertification in Africa, the question of a Desertification Convention with primary emphasis on Africa, must be one of the key issues for donors in the relatively short period between PrepCom IV and the UNCED Conference.

The resolution of this issue is of considerable importance to Canada not only because of its implication for Canada's development assistance programmes in combatting desertification in Africa, but also because of the considerable linkage and potential for leverage with regard to a positive outcome for a International Forests Convention, a key objective for Canada at UNCED.

Report prepared by:

Roger Street  
Environment Canada  
(416) 739-4271

Further information:

Keith Valentine  
CIDA  
994-0662





General Assembly

Distr.  
LIMITED

A/CONF.151/PC/WG.I/L.39/Rev.1  
26 March 1992

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Fourth session  
New York, 2 March-3 April 1992  
Working Group I  
Agenda item 3 (c)

① throughout the text,  
substitute systematic  
observation for monitoring

LAND RESOURCES: DESERTIFICATION AND DROUGHT

Revised text submitted by the Chairman

MANAGING FRAGILE ECOSYSTEMS: COMBATING DESERTIFICATION  
AND DROUGHT

(Section II, chapter 4 of Agenda 21)

INTRODUCTION

1. Fragile ecosystems are important ecosystems, with unique features and resources. Fragile ecosystems include deserts, semi-arid lands, mountains, wetlands, small islands and certain coastal areas. Most of these ecosystems are regional in scope, as they transcend national boundaries. This chapter addresses land resource issues in deserts, as well as arid, semi-arid and dry sub-humid areas. Sustainable mountain development is addressed in section II, chapter 5 of Agenda 21. Small islands and coastal areas are discussed in section II, chapter 9.

2. Desertification is land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variations and human activities. Desertification affects about one sixth of the world's population, 70 per cent of all drylands, amounting to 3.6 billion hectares, and one quarter of the total land area of the world. The most obvious impact of desertification, in addition to widespread poverty, is the degradation of 3.3 billion hectares of the total area of rangeland, constituting 73 per cent of the rangeland with a low potential for human and animal carrying capacity; decline in soil fertility and soil structure on about 47 per cent of the

dryland areas constituting marginal rainfed cropland; and the degradation of irrigated cropland, amounting to 30 per cent of the dryland areas with a high population density and agricultural potential.

3. The priority in combating desertification should be the implementation of preventive measures for lands that are not yet degraded, or which are only slightly degraded. However, the severely degraded areas should not be neglected. In combating desertification and drought, the participation of local communities, rural organizations, national Governments, non-governmental organizations and international and regional organizations is essential.

4. The discussion on document A/CONF.151/PC/WG.I/L.29 revealed the national, regional and global nature of the desertification problem and the important developmental and environmental implications that require investigation and immediate action. There was broad agreement on the content of that document and the proposed programme areas for Agenda 21 contained in the annex to the Preparatory Committee decision 3/16. In that decision the Preparatory Committee also requested a further elaboration of the proposed programme areas and action for consideration at its fourth session.

5. The following programme areas are included in this chapter:

- A. Strengthening the knowledge base and developing information and monitoring systems for regions prone to desertification and drought, including the economic and social aspects of these ecosystems;
- B. Combating land degradation through, inter alia, intensified soil conservation, afforestation and reforestation activities;
- C. Developing and strengthening integrated development programmes for the eradication of poverty and promotion of alternative livelihood systems in areas prone to desertification;
- D. Developing comprehensive anti-desertification programmes and integrating them into national development plans and national environmental planning;
- E. Developing comprehensive drought preparedness and drought-relief schemes, including self-help arrangements, for drought-prone areas and designing programmes to cope with environmental refugees;
- F. Encouraging and promoting popular participation and environmental education, focusing on desertification control and management of the effects of drought.

## PROGRAMME AREAS

- A. Strengthening the knowledge base and developing information and monitoring systems for regions prone to desertification and drought, including the economic and social aspects of these ecosystems

### Basis for action

6. The global assessments of the status and rate of desertification conducted by the United Nations Environment Programme (UNEP) in 1977, 1984 and 1991 have revealed insufficient basic knowledge of desertification processes. Adequate worldwide monitoring systems are helpful for the development and implementation of effective anti-desertification programmes. The capacity of existing international, regional and national institutions, particularly in developing countries, to generate and exchange relevant information is limited. An integrated and coordinated information and monitoring system based on appropriate technology and embracing global, regional, national and local levels is essential for understanding the dynamics of desertification and drought processes. It is also important for developing adequate measures to deal with desertification and drought and improving socio-economic conditions.

### Objectives

7. The objectives of this programme area are:

(a) To promote establishment and/or strengthening of national environmental information coordination centres that will act as focal points within Governments for sectoral ministries and provide the necessary standardization and back-up services; ensuring also that national environmental information systems on desertification and drought are linked together through a network at subregional, regional and interregional levels;

(b) To strengthen regional and global monitoring networks linked to the development of national monitoring systems for the observation of land degradation and desertification caused both by climate fluctuations and by human impact, and identifying priority areas for action;

(c) To establish a permanent system at both national and international levels for monitoring desertification/land degradation with the aim of improving living conditions in the affected areas.

### Activities

(a) Management-related activities

8. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Establish and/or strengthen environmental information systems at the national level;

(b) Strengthen national <sup>State</sup> ~~and~~ /provincial<sup>and</sup> local assessment and ensure cooperation/networking between existing environmental information and monitoring systems, such as Earthwatch and the Sahara and Sahel Observatory;

(c) Strengthen the capacity of national institutions to analyse environmental data so that ecological change can be monitored and environmental information obtained on a continuing basis at the national level.

(b) Data and information

9. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Review and study the means for measuring the ecological, economic and social consequences of desertification and land degradation and introduce the results of these studies internationally into desertification and land degradation assessment practices;

(b) Review and study the interactions between the socio-economic impacts of climate, drought and desertification and utilize the results of these studies to secure concrete action.

10. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Support the integrated data collection and research work of programmes related to desertification and drought problems;

(b) Support national, regional and global programmes for integrated data collection and research networks carrying out assessment of soil and land degradation;

(c) Strengthen national and regional meteorological and hydrological networks and monitoring systems to ensure adequate collection of basic information and communication among national, regional and international centres.

(c) International and regional cooperation and coordination

11. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Strengthen regional programmes and international cooperation, such as the Permanent Inter-State Committee on Drought Control in the Sahel (CILSS), the Intergovernmental Authority for Drought and Development (IGADD), the Southern African Development Coordination Conference (SADCC), Arab Maghreb Union (UMA) and other regional organizations, as well as such organizations as the Sahara and Sahel Observatory;

(b) Establish and/or develop a comprehensive desertification, land degradation and human condition database component that incorporates both physical and socio-economic parameters. This should be based on existing and, where necessary, additional facilities, such as those of Earthwatch and other information systems of international, regional and national institutions strengthened for this purpose;

(c) Determine benchmarks and define indicators of progress that facilitate the work of local and regional organizations in monitoring and tracking progress in the fight for anti-desertification. Particular attention should be paid to indicators of local participation.

Means of implementation

(a) Financing and cost-evaluation

12. [The total financing required to implement this programme area is about \$350 million a year, while the average annual financing required from international sources is about \$175 million. From this international figure, the average annual costs related to accelerated development would be about \$165 million and the costs for strengthening the capacity of international institutions would be about \$10 million a year.]

(b) Scientific and technological means

13. Governments at the appropriate level, with the support of the relevant international and regional organizations working on the issue of desertification and drought, should:

(a) Undertake and update existing inventories of natural resources, such as energy, water, soil, minerals, plant and animal access to food, as well as other resources, such as housing, employment, health, education and demographic distribution in time and space;

(b) Develop integrated information systems for environmental monitoring, accounting and impact assessment;

(c) International bodies should cooperate with national Governments to facilitate the acquisition and development of appropriate technology for monitoring and combating drought and desertification.

(c) Human resource development

14. Governments at the appropriate level, with the support of the relevant international and regional organizations working on the issue of desertification and drought, should develop the technical and professional skills of people engaged in monitoring and assessing the issue of desertification and drought.

(d) Capacity-building

15. Governments at the appropriate level, with the support of the relevant international and regional organizations working on the issue of desertification and drought, should:

(a) Strengthen national and local institutions by providing adequate staff equipment and finance for monitoring and assessing desertification;

(b) Promote the involvement of the local population, particularly women and youth, in the collection and utilization of environmental information through education and awareness-building.

B. Combating land degradation through, inter alia, intensified soil conservation, afforestation and reforestation activities

Basis for action

16. Desertification affects about 3.6 billion hectares, which is about 70 per cent of the total area of the world's drylands or nearly one quarter of the global land area. Action should be launched to protect and take preventive measures in areas which are not yet affected or are only slightly affected by desertification. This includes more than 1.2 billion hectares of rangeland (about 27 per cent of the total area of rangeland), 240 million hectares of rainfed cropland (about 53 per cent of the total area of rainfed cropland) and 100 million hectares of irrigated cropland (about 70 per cent of the total irrigated land). Measures should be taken to implement corrective measures to sustain the productivity of moderately desertified drylands. This includes about 1.25 billion hectares of rangeland (about 28 per cent of the total area of rangeland), 180 million hectares of rainfed cropland (about 40 per cent of the total area of rainfed cropland) and 35 million hectares of irrigated cropland (about 23 per cent of the total irrigated area). Another important measure would consist of rehabilitation or protection for natural recovery of severely or very severely desertified drylands. These include over 2 billion hectares of rangeland, 33 million hectares of rainfed cropland and 9 million hectares of irrigated cropland.

See  
attached

17. An increasing vegetation cover would promote and stabilize the hydrological balance in the dryland areas and maintain land quality and land productivity. Prevention of not yet degraded land and application of corrective measures and rehabilitation of moderate and severely degraded drylands, including areas affected by sand dune movements, through the introduction of environmentally sound, socially acceptable, fair and economically feasible land use systems. This will enhance the land carrying capacity and maintenance of biotic resources in fragile ecosystems.

16. Desertification affects about 3.6 billion hectares, which is about 70 per cent of the total area of the world's drylands or nearly one quarter of the global land area. In combating desertification on rangelands, rainfed cropland and irrigated land preventative measures should be launched in areas which are not yet affected or are only slightly affected by desertification; corrective measures should be implemented to sustain the productivity of moderately desertified land; and rehabilitative measures should be taken to recover severely or very severely desertified drylands.

### Objectives

18. The objectives of this programme area are:

(a) As regards areas not yet affected or only slightly affected by desertification, to ensure appropriate management of existing natural formations (including forests) for the conservation of biodiversity, watershed protection, sustainability of their production and agricultural development, and other purposes, with the full participation of indigenous people;

(b) To rehabilitate moderately to severely desertified drylands for productive utilization and sustain their productivity for agropastoral/agroforestry development through, inter alia, soil and water conservation;

(c) To increase the vegetation cover and support management of biotic resources in regions affected or prone to desertification and drought, notably through such activities as afforestation/reforestation, agroforestry, community forestry and vegetation retention schemes;

(d) To improve management of forest resources, including woodfuel, and to reduce woodfuel consumption through more efficient utilization, conservation and the enhancement, development and use of other sources of energy, including alternative sources of energy.

### Activities

(a) Management-related activities

19. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Implement urgent direct preventive measures in drylands that are vulnerable but not yet affected, or only slightly desertified drylands, by introducing (i) improved land-use policies and practices for more sustainable land productivity; (ii) appropriate, environmentally sound and economically feasible agricultural and pastoral technologies; and (iii) improved management of soil and water resources;

(b) Carry out accelerated afforestation and reforestation programmes, using drought-resistant, fast-growing species, in particular native ones, including legumes and other species, combined with community-based agroforestry schemes. In this regard, creation of large-scale reforestation and afforestation schemes, particularly through the establishment of green belts, should be considered, bearing in mind ~~that such measures could increase~~ CO<sub>2</sub> sinks; *The multiple effects of such measures.*

(c) Implement urgent direct corrective measures in moderately to severely desertified drylands, in addition to the measures listed in paragraph 19 (a) above, with a view to restoring and sustaining their productivity;



(d) Promote improved land/water/crop-management systems, making it possible to combat salinization in existing irrigated croplands; and to stabilize rainfed croplands and introduce improved soil/crop-management systems into land-use practice;

(e) Promote participatory management of natural resources, including rangeland, to meet both the needs of rural populations and conservation purposes, based on innovative or adapted indigenous technologies;

(f) Promote in situ protection and conservation of special ecological areas through legislation and other means for the purpose of combating desertification while ensuring the protection of biodiversity;

(g) Promote and encourage investment in forestry development in drylands through various incentives, including legislative measures;

(h) Promote the development and use of other sources of energy, which will including alternative sources of energy and improved stoves, to lessen pressure on ligneous resources.

(b) Data and information

20. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Develop land-use models based on local practices for the improvement of <sup>such</sup> local practices, with a focus on preventing land degradation. The models should give a better understanding of the variety of natural and human-induced factors that may contribute to desertification. Models should incorporate the interaction of both new and traditional practices to prevent land degradation and reflect the resilience of the whole ecological and social system;

(b) Develop, test and introduce, with due regard to environmental security considerations, drought resistant, fast-growing and productive plant species appropriate to the environment of the regions concerned.

(c) International and regional cooperation and coordination

21. The appropriate United Nations agencies, international and regional organizations, non-governmental organizations and bilateral agencies should:

(a) Coordinate their roles in combating land degradation and promoting reforestation, agroforestry and land-management systems in affected countries;

(b) Support regional and subregional activities in technology development and dissemination, training and programme implementation to arrest dryland degradation.

22. The national Governments concerned, the appropriate United Nations agencies and bilateral agencies should strengthen the coordinating role in dryland degradation of subregional intergovernmental organizations set up to cover these activities, such as CILSS, IGADD, SADCC and the Arab Maghreb Union.

Means of implementation

(a) Financing and cost-evaluation

23. [The total financing required to implement this programme area in developing countries is about \$6 billion a year, while the average annual financing required from international sources is about \$3 billion. From this international figure, costs related to accelerated development would be about \$2.6 billion a year, the requirements for global environmental issues would be about \$370 million a year, and the amount for strengthening the capacity of international institutions would be about \$30 million a year.]

(b) Scientific and technological means

24. Governments at the appropriate level and local communities, with the support of the relevant international and regional organizations, should:

(a) Integrate indigenous knowledge related to forests, forest lands, rangeland and natural vegetation into research activities on desertification and drought;

(b) Promote integrated research programmes on the protection, restoration and conservation of water and land resources and land-use management based on traditional approaches, where feasible.

(c) Human resource development

25. Governments at the appropriate level and local communities, with the support of the relevant international and regional organizations, should:

(a) Establish mechanisms to ensure that land users, particularly women, are the main actors in implementing improved land use, including agroforestry systems, in combating land degradation;

(b) Promote efficient extension-service facilities in areas prone to desertification and drought, particularly for training farmers and pastoralists in the improved management of land and water resources in drylands.

(d) Capacity-building

26. Governments at the appropriate level and local communities, with the support of the relevant international and regional organizations, should:

(a) Develop and adopt, through appropriate national legislation, and introduce institutionally, new and environmentally sound development-oriented land-use policies;

(b) Support community-based people's organizations, especially farmers and pastoralists.

C. Developing and strengthening integrated development programmes for the eradication of poverty and promotion of alternative livelihood systems in areas prone to desertification

Basis for action

27. In areas prone to desertification and drought, current livelihood and resource-use systems are not able to maintain living standards. In most of the arid and semi-arid areas, the traditional livelihood systems based on agropastoral systems are often inadequate and unsustainable, particularly in view of the effects of drought and increasing demographic pressure. Poverty is a major factor in accelerating the rate of degradation and desertification. Action is therefore needed to rehabilitate and improve the agropastoral systems for sustainable management of rangelands, as well as alternative livelihood systems.

Objectives

28. The objectives of this programme area are:

(a) To create the capacity of village communities and pastoral groups to take charge of their development and the management of their land resources on a socially equitable and ecologically sound basis;

(b) To improve production systems in order to achieve greater productivity within approved programmes for conservation of national resources and in the framework of an integrated approach to rural development;

(c) To provide opportunities for alternative livelihoods as a basis for reducing pressure on land resources while at the same time providing additional sources of income, particularly for rural populations, thereby improving their standard of living.

Activities

(a) Management-related activities

29. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

- (a) Adopt policies at the national level regarding a decentralized approach to land-resource management, delegating responsibility to rural organizations;
- (b) Create or strengthen rural organizations in charge of village and pastoral land management;
- (c) Establish and develop local, national and intersectoral mechanisms to handle environmental and developmental consequences of land tenure expressed in terms of land use and land ownership. Particular attention should be given to protecting the property rights of women and pastoral and nomadic groups living in rural areas;
- (d) Create or strengthen village associations focused on economic activities of common pastoral interest (market gardening, transformation of agricultural products, livestock, herding, etc.);
- (e) Promote rural credit and mobilization of rural savings through the establishment of rural banking systems;
- (f) Develop infrastructure, as well as local production and marketing capacity, by involving the local people to promote alternative livelihood systems and alleviate poverty;
- (g) Establish a revolving fund for credit to rural entrepreneurs and local groups to facilitate the establishment of cottage industries/business ventures and credit for input to agropastoral activities.

(b) Data and information

30. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

- (a) Conduct socio-economic baseline studies in order to have a good understanding of the situation in the programme area regarding, particularly, resource and land tenure issues, traditional land-management practices and characteristics of production systems;
- (b) Conduct inventory of natural resources (soil, water and vegetation) and their state of degradation, based primarily on the knowledge of the local population (e.g., rapid rural appraisal);
- (c) Disseminate information on technical packages adapted to the social, economic and ecological conditions of each;
- (d) Promote exchange and sharing of information concerning the development of alternative livelihoods with other agro-ecological regions.

(c) International and regional cooperation and coordination

31. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Promote cooperation and exchange of information among the arid and semi-arid land research institutions concerning techniques and technologies to improve land and labour productivity, as well as viable production systems;

(b) Coordinate and harmonize the implementation of programmes and projects funded by the international organization communities and non-governmental organizations that are directed towards the alleviation of poverty and promotion of an alternative livelihood system.

Means of implementation

(a) Financing and cost-evaluation

32. [The total financing required for these programme areas is about \$3 billion a year, while the average annual financing required from international sources is about \$1.5 billion].

(b) Scientific and technological means

33. Governments, at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Undertake applied research in land-use with the support of local research institutions;

(b) Facilitate regular national, regional and interregional communication on and exchange of information and experience between extension officers and researchers;

(c) Support and encourage the introduction and use of technologies for the generation of alternative sources of incomes.

(c) Human resource development

34. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Train members of rural organizations in management skills and train agropastoralists in such special techniques as soil and water conservation, water harvesting, agroforestry and small-scale irrigation;

(b) Train extension agents and officers in the participatory approach to integrated land management.

(d) Capacity-building

35. Governments at the appropriate level, with the support of the relevant international and regional organizations, should establish and maintain mechanisms to ensure the integration into sectoral and national development plans and programmes of strategies for poverty alleviation among the inhabitants of lands prone to desertification.

D. Developing comprehensive anti-desertification programmes and integrating them into national developing plans and national environmental planning

Basis for action

36. In a number of developing countries affected by desertification, the natural resource base is the main resource upon which the development process must rely. The social systems interacting with land resources make the problem much more complex, requiring an integrated approach to the planning and management of land resources. Action plans to combat desertification and drought should include management aspects of the environment and development, thus conforming with the approach of integrating national development plans and national environmental action plans.

Objectives

37. The objectives of this programme area are:

(a) To strengthen national institutional capabilities to develop appropriate anti-desertification programmes and to integrate them into national development planning;

(b) To develop and integrate strategic planning frameworks for the development, protection and management of natural resources in dryland areas into national development plans, including national plans to combat desertification, and environmental action plans in countries most prone to desertification;

(c) To initiate a long-term process for implementing and monitoring strategies related to natural resources management;

(d) To strengthen regional and international cooperation for combating desertification [through, inter alia, the adoption of legal and other instruments].

Activities

(a) Management-related activities

38. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Establish or strengthen, national and local anti-desertification authorities within government and local executive bodies, as well as local committees/associations of land-users, in all rural communities affected, with a view to organizing working cooperation between all actors concerned, from the grass-roots level (farmers and pastoralists) to the higher levels of government;

(b) Develop national plans of action to combat desertification and as appropriate, make them integral parts of national development plans and national environmental action plans;

(c) Implement policies directed towards improving land use, managing common lands appropriately, providing incentives to small farmers and pastoralists, involving women and encouraging private investment in the development of drylands;

(d) Ensure coordination among ministries and institutions working on anti-desertification programmes at national and local levels.

(b) Data and information

39. Governments at the appropriate level, with the support of the relevant international and regional organizations, should promote information exchange and cooperation with respect to national planning and programming among affected countries, inter alia, through networking.

(c) International and regional cooperation and coordination

40. The relevant international organizations, multilateral financial institutions, non-governmental organizations and bilateral agencies should strengthen their cooperation in assisting with the preparation of desertification control programmes and their integration into national planning strategies, with the establishment of national coordinating and monitoring mechanisms and with the regional and global networking of these plans and mechanisms.

41. [Governments, intergovernmental organizations, relevant non-governmental organizations, and the scientific community should improve and strengthen international cooperation and solidarity in the fight against desertification through the preparation and adoption of an international convention to combat desertification, particularly in Africa. This convention should contain concrete and specific commitments from the participating parties (both the countries affected by desertification and other countries parties to the convention) and should take into account the needs of Governments as well as of populations affected by desertification. It is proposed that the servicing of the mechanism that will be set up for the preparation of that convention could be entrusted to the United Nations Sudano-Sahelian Office, thereby benefiting from the experience gained by that organization in desertification control activities.]

in all  
affected  
areas  
of the  
world

Means of implementation

(a) Financing and cost-evaluation

42. [The total financing required to implement this programme area is about \$180 million a year, while the average annual financing required from international sources is about \$90 million. Of this latter figure, costs related to accelerated development would amount to about \$80 million a year, and costs for strengthening the capacity of international institutions would be about \$10 million a year.]

(b) Scientific and technological means

43. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Develop and introduce appropriate improved sustainable agricultural and pastoral technologies that are socially and environmentally acceptable and economically feasible;

(b) Undertake applied study on the integration of environmental and developmental activities into national development plans.

(c) Human resource development

44. Governments at the appropriate level, with the support of the relevant international and regional organizations, should undertake nation-wide major anti-desertification awareness/training campaigns within countries affected through existing national mass media facilities, educational networks and newly created or strengthened extension services. This should ensure people's access to knowledge of desertification and drought and to national plans of action to combat desertification.

(d) Capacity-building

45. Governments at the appropriate level, with the support of the relevant international and regional organizations, should establish and maintain mechanisms to ensure coordination of sectoral ministries and institutions, including local-level institutions and appropriate non-governmental organizations, in integrating anti-desertification programmes into national development plans and national environmental action plans.



E. Developing comprehensive drought preparedness and drought-relief schemes, including self-help arrangements, for drought-prone areas and designing programmes to cope with environmental refugees

Basis for action

46. Drought, in differing degrees of frequency and severity, is a recurring phenomenon throughout much of the developing world, especially Africa. Apart from the human toll - an estimated 3 million people died in the mid-1980s because of drought in sub-Saharan Africa - the economic costs of drought-related disasters are also high in terms of lost production, misused inputs and diversion of development resources.

47. Early-warning systems to forecast drought will make possible the implementation of drought-preparedness schemes. Integrated packages at the farm and watershed level, such as alternative cropping strategies, soil and water conservation and promotion of water harvesting techniques, could enhance the capacity of land to cope with drought and provide basic necessities, thereby minimizing the number of environmental refugees and the need for emergency drought relief. At the same time, contingency arrangements for relief are needed for periods of acute scarcity.

Objectives

48. The objectives of this programme area are:

(a) To develop national strategies for drought preparedness in both the short and long term, aimed at reducing the vulnerability of production systems to drought;

(b) To strengthen the flow of early-warning information to decision makers and land users to enable nations to implement strategies for drought intervention;

(c) To develop and integrate drought-relief schemes and means of coping with environmental refugees into national and regional development planning.

Activities

(a) Management-related activities

49. In drought-prone areas, Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Design strategies to deal with national food deficiencies in periods of production shortfall. These strategies should deal with issues of storage and stocks, imports, port facilities, food storage, transport and distribution;

(b) Improve national and regional capacity for agrometeorology and contingency crop planning. Agrometeorology links the frequency, content and regional coverage of weather forecasts with the requirements of crop planning and agricultural extension;

(c) Prepare rural projects for providing short-term rural employment to drought-affected households. The loss of income and entitlement to food is a common source of distress in times of drought. Rural works help to generate the income required to buy food for poor households;

(d) Establish contingency arrangements, where necessary, for food and fodder distribution and water supply;

(e) Establish budgetary mechanisms for providing, at short notice, resources for drought relief;

(f) Establish safety nets for the most vulnerable households.

(b) Data and information

50. Governments of affected countries, at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Implement research on seasonal forecasts to improve contingency planning and relief operations and allow preventive measures to be taken at the farm level, such as the selection of appropriate varieties and farming practices, in times of drought;

(b) Support applied research on ways of reducing water loss from soils, on ways of increasing the water absorption capacities of soils and on water harvesting techniques in drought-prone areas;

(c) Strengthen national early-warning systems, with particular emphasis on the area of risk-mapping, remote-sensing, agrometeorological modelling, integrated multidisciplinary crop-forecasting techniques and computerized food supply/demand analysis.

(c) International and regional cooperation and coordination

51. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Establish a system of stand-by capacities in terms of foodstock, logistical support, personnel and finance for a speedy international response to drought-related emergencies;

(b) Support programmes of the World Meteorological Organization (WMO) on agrohydrology and agrometeorology, the Programme of the Regional Training Centre for Agrometeorology and Operational Hydrology and their Applications (AGRHYMET), drought-monitoring centres and the African Centre of

Meteorological Applications for Development (ACMAD), as well as the efforts of the Permanent Inter-State Committee on Drought Control in the Sahel (CILSS) and the Intergovernmental Authority for Drought and Development (IGADD);

(c) Support FAO programmes and other programmes for the development of national early-warning systems and food security assistance schemes;

(d) Strengthen and expand the scope of existing regional programmes and the activities of appropriate United Nations organs and organizations, such as the World Food Programme (WFP), the Office of the United Nations Disaster Relief Coordinator (UNDRO) and the United Nations Sudano-Sahelian Office as well as of non-governmental organizations, aimed at mitigating the effects of drought and emergencies.

Means of implementation

(a) Financing and cost-evaluation

52. [This programme area requires two sets of cost-evaluations. The first set deals with developing drought-preparedness and drought-relief schemes, the total cost of which is about \$200 million a year, the average annual financing required from international sources amounting to about \$100 million. From this international figure, costs related to accelerated development would be about \$90 million a year and the amount for strengthening the capacity of international institutions would be about \$10 million a year. The second set deals with the cost required to cope with environmental refugees displaced from their homes by emergencies such as drought, among other natural disasters. The international financing required to cope with such emergencies is about \$1 billion a year.]

(b) Scientific and technological means

53. Governments at the appropriate level and drought-prone communities, with the support of the relevant international and regional organizations, should:

(a) Use traditional mechanisms to cope with hunger as a means of channelling relief and development assistance;

(b) Strengthen and develop national, regional and local interdisciplinary research and training capabilities for drought-prevention strategies.

(c) Human resource development

54. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Promote the training of decision makers and land users in the effective utilization of information from early-warning systems;

(b) Strengthen research and national training capabilities to assess the impact of drought and to develop methodologies to forecast drought.

(d) Capacity-building

55. Governments, at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Improve and maintain mechanisms with adequate staff, equipment and finances for monitoring drought parameters to take preventive measures at regional, national and local levels;

(b) Establish interministerial linkages and coordinating units for drought monitoring, impact assessment and management of drought-relief schemes.

F. Encouraging and promoting popular participation and environmental education, focusing on desertification control and management of the effects of drought

Basis for action

56. The experience to date on the successes and failures of programmes and projects points to the need for popular support to sustain activities related to desertification and drought control. But it is necessary to go beyond the theoretical ideal of popular participation and to focus on obtaining actual active popular involvement, rooted in the concept of partnership. This implies the sharing of responsibilities and the mutual involvement of all parties. In this context, this programme area should be considered an essential supporting component of all desertification-control and drought-related activities.

Objectives

57. The objectives of this programme area are:

(a) To develop and increase public awareness and knowledge concerning desertification and drought, including the integration of environmental education in the curriculum of primary and secondary schools;

(b) To establish and promote true partnership between government authorities, at both the national and local levels, other executing agencies, non-governmental organizations and land users stricken by drought and desertification, giving land users a responsible role in the planning and execution processes in order to benefit fully from development projects;

(c) To ensure that the partners understand one another's needs, objectives and points of view by providing a variety of means such as training, public awareness and open dialogue;

(d) To support local communities in their own efforts in combating desertification, and to draw on the knowledge and experience of the populations concerned, ensuring the full participation of women and indigenous populations.

Activities

(a) Management-related activities

58. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Adopt policies and establish administrative structures for more decentralized decision-making and implementation;

(b) Establish and utilize mechanisms for the consultation and involvement of land users and for enhancing capability at the grass-roots level to identify and/or contribute to the identification and planning of action;

(c) Define specific programme/project objectives in cooperation with local communities; design local management plans to include such measures of progress, thereby providing a means of altering project design or changing management practices, as appropriate;

(d) Introduce legislative, institutional/organizational and financial measures to secure user involvement and access to land resources;

(e) Establish and/or expand favourable conditions for the provision of services, such as credit facilities and marketing outlets for rural populations;

(f) Develop training programmes to increase the level of education and participation of people, particularly women and indigenous groups, through, inter alia, literacy and the development of technical skills;

(g) Create rural banking systems to facilitate access to credit for rural populations, particularly women and indigenous groups, and to promote rural savings;

(h) Adopt appropriate policies to stimulate private and public investment.

(b) Data and information

59. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Review, develop and disseminate gender-disaggregated information, skills and know-how at all levels on ways of organizing and promoting popular participation;

(b) Accelerate the development of technological know-how, focusing on appropriate and intermediate technology;

(c) Disseminate knowledge about applied research results on soil and water issues, appropriate species, agricultural techniques and technological know-how.

(c) International and regional cooperation and coordination

60. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Develop programmes of support to regional organizations such as CILSS, IGADD, the Southern African Development Coordination Conference (SADCC) and the Arab Maghreb Union and other intergovernmental organizations in Africa and other parts of the world, to strengthen outreach programmes and increase the participation of non-governmental organizations together with rural populations;

(b) Develop mechanisms for facilitating cooperation in technology and promote such cooperation as an element of all external assistance and activities related to technical assistance projects in the public or private sector;

(c) Promote collaboration among different actors in environment and development programmes;

(d) Encourage the emergence of representative organizational structures to foster and sustain interorganizational cooperation.

Means of implementation

(a) Financing and cost-evaluation

61. [The total financing required for this programme area is about \$2.5 billion a year, while the average annual financing required from international sources is about \$1 billion.]

(b) Scientific and technological means

62. Governments, at the appropriate level, with the support of the relevant international and regional organizations, should promote the development of indigenous know-how and technology transfer.

(c) Human resource development

63. Governments, at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Support and/or strengthen institutions involved in public education, including the local media, schools and community groups;

(b) Increase the level of public education.

(d) Capacity-building

64. Governments at the appropriate level, with the support of the relevant international and regional organizations, should promote members of local rural organizations and train and appoint more extension officers working at the local level.

-----



General Assembly

Distr.  
LIMITED

A/CONF.151/PC/WG.I/L.39/Rev.1/Corr.1  
1 April 1992

ORIGINAL: ENGLISH

---

PREPARATORY COMMITTEE FOR THE UNITED  
NATIONS CONFERENCE ON ENVIRONMENT  
AND DEVELOPMENT

Fourth session  
New York, 2 March-3 April 1992  
Working Group I  
Agenda item 3 (c)

LAND RESOURCES: DESERTIFICATION AND DROUGHT

Revised text submitted by the Chairman

Managing fragile ecosystems: combating desertification  
and drought

(Section II, Chapter 4 of Agenda 21)

Corrigendum

1. Throughout the text, for monitoring substitute systematic observation.
2. Paragraph 8 (b)

For Strengthen national and provincial/local assessment, read Strengthen national, state/provincial and local assessment.

3. Paragraph 16 should read
16. Desertification affects about 3.6 billion hectares, which is about 70 per cent of the total area of the world's drylands or nearly one quarter of the global land area. In combating desertification on rangelands, rainfed cropland and irrigated land preventative measures should be launched in areas which are not yet affected or are only slightly affected by desertification; corrective measures should be implemented to sustain the productivity of moderately desertified land; and rehabilitative measures should be taken to recover severely or very severely desertified drylands.



4. Paragraph 19 (b)

For bearing in mind that such measures could increase CO<sub>2</sub> sinks read bearing in mind the multiple benefits of such measures.

5. Paragraph 19 (h) should read

(h) Promote the development and use of sources of energy which will lessen pressure on ligneous resources, including alternative sources of energy and improved stoves.

6. Paragraph 20 (a)

For Develop land-use models based on local practices for the improvement of local practices read Develop land-use models based on local practices for the improvement of such practices.

7. Paragraph 41

For adoption of an international convention to combat desertification, particularly in Africa read adoption of an international convention to combat desertification in all affected areas of the world, particularly in Africa.

-----



**MANAGING FRAGILE ECOSYSTEMS: SUSTAINABLE MOUNTAIN  
DEVELOPMENT**

**SUMMARY**

Sustainable mountain development was not an overly contentious chapter and a consensus decision containing no square brackets resulted from the negotiations. During negotiations Austria introduced the concept of developing appropriate regional instruments including legal and other instruments aimed at the protection of fragile mountain ecosystems. The concepts of diversification of mountain economies and involving local communities in the decision-making process were strengthened through the introduction of appropriate language.

**DOCUMENTATION**

A/CONF.151/PC/WG.I/L.40 Adopted Agenda 21 chapter: Managing Fragile Ecosystems: Sustainable Mountain Development (replaces PC/100/Add.18).

**CANADIAN OBJECTIVES**

1. Seek to support the general thrust of the document while not making it a major issue.
2. Seek to assure the conference that Canada is well placed to ensure sustainable mountain land use through its Green Plan, Canada Land Inventory and Forest Inventories.

**PREPCOM DISCUSSION**

There were no major contentious issues within the Secretariat's document PC/100/Add.18 and negotiations focused on refining the proposals rather than a complete overhaul. Austria introduced the concept of developing regional legal instruments to protect fragile mountain ecosystems citing its experience with the convention on the protection of the Alps. This proposal underwent some modification to allow for flexibility in the approach governments may wish to take. The resulting language allows for consideration of appropriate mechanisms including regional legal and other instruments to protect fragile mountain ecosystems.

Czechoslovakia introduced activities directed at establishing natural reserves in representative species-rich sites and areas and at identifying areas threatened by air pollution from neighbouring industrial and urban areas.

The involvement of local communities in the decision-making process was strengthened by introducing appropriate language

both in the objectives and activities sections. This includes the participation of local communities in improving the ecological knowledge base and enhancing popular participation in the management of local resources.

The decision document recognizes the need to diversify mountain economies and that these economic activities must be ecologically sensitive (and culturally acceptable). This includes sustainable tourism, fisheries, cottage and agro-processing industries and environmentally sound mining.

#### **OUTCOME AND ASSESSMENT**

The resulting decision document (PC/WG.I/L.40) was adopted as a consensus document containing no square brackets (except those within the Means of Implementation). Canada supported the refinement of this document as outlined in the above section of this report. These refinements are consistent with the objectives, with the concepts within other briefing notes for PrepCom IV, and with the Canadian Green Plan.

There should be little if any further action required for completing this paper. The only outstanding issues are those within the means of implementation sections. These should be dealt with in concert with similar areas within the other Agenda 21 chapters and consistent with UNCED decisions on financial resources and transfer of technology.

Report prepared by:

Roger Street  
Environment Canada  
(416) 739-4271

Further information:

Keith Valentine  
CIDA  
994-0662



General Assembly

Distr.  
LIMITED

A/CONF.151/PC/WG.I/L.40  
16 March 1992

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE UNITED  
NATIONS CONFERENCE ON ENVIRONMENT  
AND DEVELOPMENT  
Fourth session  
New York, 2 March-3 April 1992  
Working Group I  
Agenda item 3 (b)

① At the beginning of paragraphs 11, 12, 15,  
16, 17, 23, 24, 28, 29 & 30 please read  
"Governments at the appropriate level  
and with the support of the relevant  
international and regional  
organizations should ...."

LAND RESOURCES: SOIL LOSS

Text submitted by the Chairman on the basis of negotiations  
held on document A/CONF.151/PC/100/Add.18

Managing fragile ecosystems: sustainable mountain development  
(Section II, Chapter 5 of Agenda 21)

Attached is the text of document A/CONF.151/PC/100/Add.18 as it has been agreed in negotiations on 12 March 1992. The paragraphs in the introduction, basis for action and means for implementation have not been negotiated; language on these points will be inserted later, based on the results of ongoing consideration of cross-sectoral issues.

INTRODUCTION

1. Mountains are an important source of water, energy and biological diversity. Furthermore they are a source of key resources such as water, minerals, forest products, agricultural products and recreation. As a major ecosystem representing the complex and interrelated ecology of our planet, mountain environments are essential to the survival of the global ecosystem. Mountain ecosystems are, however, rapidly changing. They are susceptible to accelerated soil erosion, landslides and rapid loss of habitat and genetic diversity. On the human side, there is widespread poverty among mountain inhabitants and loss of indigenous knowledge. As a result, most global mountain areas are experiencing environmental degradation. Hence, the proper management of mountain resources and socio-economic development of the people deserves immediate action.

2. About 10 per cent of the world's population depends on mountain resources. A much larger percentage draws on other mountain resources, including and especially water. Mountains are a storehouse of biological diversity and endangered species.

3. Recognizing the interplay of ecological and developmental factors, the Preparatory Committee for the UNCED at its third session requested the Secretary-General of the United Nations Conference on Environment and Development to further elaborate the problem of fragile ecosystems and develop separate programmes with regard to all the mountains of the world (A/CONF.151/PC/WG.I/L.34/Rev.1). In view of this decision two programme areas are proposed as follows:

- A. Generating and strengthening knowledge about the ecology and sustainable development of mountain ecosystems
- B. Promoting integrated watershed development and alternative livelihood opportunities

#### PROGRAMME AREAS

- A. GENERATING AND STRENGTHENING KNOWLEDGE ABOUT THE ECOLOGY AND SUSTAINABLE DEVELOPMENT OF MOUNTAIN ECOSYSTEMS

##### Basis for action

4. Mountains are highly vulnerable to human and natural ecological imbalance. Mountains are the most sensitive areas to all climatic changes in the atmosphere. Specific information on ecology, natural resource potential and socio-economic activities is essential. Mountain and hillside areas hold a rich variety of ecological systems. Because of their vertical dimensions, mountains create gradients of temperature, precipitation and insolation. A given mountain slope may include several climatic regimes such as tropics, subtropics, temperate and alpine, each of which represents microcosms of larger habitat diversity. There is, however, a lack of knowledge of mountain ecosystems. The creation, therefore, of a global mountain database is vital for launching programmes that would contribute to sustainable development of mountain ecosystems.

##### Objectives

- 5. Undertake a survey of the different forms of soils, forest, water use, crop, plant and animal resources of mountain ecosystems, taking into account the work of existing international and regional organizations.
- 6. Maintain and generate database and information systems to facilitate the integrated management and environmental assessment of mountain ecosystems, taking into account the work of existing international and regional organization.

7. Improve and build the existing land/water ecological knowledge base regarding technologies and agricultural and conservation practices in the mountain regions of the world with the participation of local communities.

8. Create and strengthen the communications network and information clearing-house for existing organizations concerned with mountain issues.

9. Improve coordination of regional efforts to protect fragile mountain ecosystems through the consideration of appropriate mechanisms, including regional legal and other instruments.

10. Generate information to establish database and information systems to facilitate an evaluation of environmental risks and of natural disaster in mountain ecosystems.

#### Activities

##### Management-related:

11. National Governments with the supports of the relevant international organizations should:

(a) Strengthen existing institutions or establish new ones at local, national and regional levels to generate a multidisciplinary land/water ecological knowledge base on mountain ecosystems;

(b) Promote national policies that would provide incentives to local people for the use and transfer of environment-friendly technologies as well as farming and conservation practices;

(c) Build up the knowledge base and understanding by creating mechanisms for cooperation and information exchange among national and regional institutions working on fragile ecosystems;

(d) Encourage policies that would provide incentives to farmers and local people to undertake conservation and regenerative measures;

(e) Diversify mountain economies including creating and/or strengthening of tourism in accordance with integrated management of mountain areas;

(f) Integrate all forest, rangelands and wildlife activities in such a way that specific mountain ecosystems are maintained;

(g) Establish appropriate natural reserves in representative species-rich sites and areas.

Data and information:

12. National Governments with the support of relevant international organizations should:

(a) Maintain and establish meteorological, hydrological and physical monitoring analysis and capabilities that would encompass the climatic diversity as well as water distribution of various mountain regions of the world;

(b) Build an inventory of different forms of soils, forest, water use and crop, plant and animal genetic resources, giving priority to those under threat of extinction. Genetic resources should be protected in situ by maintaining and establishing protected areas and improving traditional farming and animal husbandry activities and establishing programmes for evaluating the potential value of the resources;

(c) Identify hazardous areas that are most vulnerable to erosion, floods, landslides, earthquakes, snow avalanches and other natural hazards;

(d) Identify mountain areas threatened by air pollution from neighbouring industrial and urban areas.

International and regional cooperation:

13. National Governments and intergovernmental organizations should:

(a) Coordinate regional and international cooperation and facilitate an exchange of information and experience among the specialized agencies, the World Bank, the International Fund for Agricultural Development (IFAD) and other international and regional organizations, national Governments, research institutions and non-governmental organizations working on mountain development;

(b) Encourage regional, national and international networking of people's initiatives and the activities of international, regional and local non-governmental organizations working on mountain development, such as the United Nations University (UNU), the Woodland Mountain Institutes (WMI), the International Center for Integrated Mountain Development (ICIMOD), the International Mountain Society (IMS), the African Mountain Association and the Andean Mountain Association, besides supporting those organizations in exchange of information and experience;

(c) Protect Fragile Mountain Ecosystem through the consideration of appropriate mechanisms including regional legal and other instruments.



Means of implementation

Financing and cost evaluation:

14. The total cost required to implement this programme area is about US\$ 330 million a year, while the average annual financing required from international sources is about US\$ 50 million. This includes US\$ 40 million for technical cooperation and US\$ 10 million for the strengthening of international institutions, particularly the United Nations Educational, Scientific and Cultural Organization, the United Nations University, the World Conservation Union (IUCN), the International Mountain Society (IMS), the Woodland Mountain Institutes (WMI) and the International Center for Integrated Mountain Development (ICIMOD), as well as the African Mountain Association and the Andean Mountain Association.

Scientific and technological means:

15. National Governments with the appropriate international and regional agencies should **\*\*(A/CONF.151/PC/WG.I/CRP.12/Rev.1, para. 14j) < strengthen scientific research and technological development programmes including diffusion through national and regional institutions in this field\*\*** (particularly in meteorology, hydrology, forestry, soil sciences and plant sciences).

Human resource development:

16. National Governments should:

(a) Launch training and extension programmes in environmentally appropriate technologies and practices that would be suitable to mountain ecosystems;

(b) Support higher education through fellowships and research grants for environmental studies in mountains and hill areas, particularly for candidates from indigenous mountain populations.

new sub - (c)  
para

Capacity-building:

See bottom 17. National Governments should **\*\*(A/CONF.151/PC/WG.I/CRP.12/Rev.1, para. 14e) < build up national and regional institutional bases that could carry research, training and dissemination of information on the sustainable development of the economies of fragile ecosystems.>\*\***

(c) undertake environmental education for farmers, in particular for women, to help the rural population better understand the ecological issues regarding the sustainable development of mountain ecosystems

B. PROMOTING INTEGRATED WATERSHED DEVELOPMENT AND ALTERNATIVE LIVELIHOOD OPPORTUNITIES

Basis for action

18. Nearly half of the world's population is affected in various ways by mountain ecology and the degradation of watershed areas. About 10 per cent of the Earth's population lives in mountain areas with higher slopes while about 40 per cent occupies the adjacent medium- and lower-watershed areas. There are serious problems of ecological deterioration in these watershed areas. For example, in the hillside areas of the Andean countries of South America a large portion of the farming population is now faced with a rapid deterioration of land resources. Similarly, the mountain and upland areas of the Himalayas, South-East Asia and East and Central Africa, which make vital contributions to agricultural production, are threatened by cultivation of marginal lands due to expanding population. In many areas this is accompanied by excessive livestock grazing, deforestation and loss of biomass cover.

19. Soil erosion can have a devastating impact on the vast numbers of rural people who depend on rainfed agriculture in the mountain and hillside areas. Poverty, including unemployment, poor health and bad sanitation, are widespread. Promoting integrated watershed development programmes through effective participation of local people is a key to preventing further ecological imbalance. An integrated approach is needed for conserving, upgrading and using the natural resource base of land, water, plant, animal and human resources. In addition, promoting alternative livelihood opportunities, particularly through development of employment schemes that increase the productive base, will have a significant role in improving the standard of living among the large rural population living in mountain ecosystems.

Objectives

20. By the year 2000, develop appropriate land use planning and management for both arable and non-arable land in mountain-fed watershed areas to prevent soil erosion, increase biomass production and maintain the ecological balance.

21. Promote income-generating activities such as sustainable tourism, fisheries and environmentally sound mining and improvement in infrastructure and social services, in particular to protect the livelihoods of local communities and indigenous people.

22. Develop technical and institutional arrangements for affected countries to mitigate the effects of natural disasters through hazard-prevention measures, risk zoning, early-warning systems, evacuation plans and emergency supplies.

Activities

Management-related:

23. National Governments with support of the relevant international organizations should:

- (a) Undertake measures to prevent soil erosion and promote erosion-control activities in all sectors;
- (b) Establish task forces or watershed development committees, complementing existing institutions, to coordinate integrated services to support local initiatives in animal husbandry, forestry, horticulture and rural development at all administrative levels;
- (c) Enhance popular participation in the management of local resources through appropriate legislation;
- (d) Support non-governmental organizations and other private groups assisting local organizations and communities in the preparation of projects that would enhance participatory development of local people;
- (e) Provide mechanisms to preserve threatened areas that could protect wildlife, conserve biological diversity or serve as national parks;
- (f) Develop national policies that would provide incentives to farmers and local people to undertake conservation measures as well as to use environment-friendly technologies;
- (g) Undertake income-generating activities in cottage and agro-processing industries, such as the cultivation and processing of medicinal and aromatic plants;
- (h) Undertake the above activities, taking into account the need for full participation of women, including indigenous people and local communities, in development.

Data and information:

24. National Governments should:

- (a) <sup>Maintain and</sup> Establish monitoring and evaluation capacities at the national, State or provincial level to generate information for daily operations as well as to assess the environmental and socio-economic impacts of projects;
- (b) Generate data on alternative livelihoods and diversified production systems at the village level on annual and tree crops, livestock, poultry, beekeeping, fisheries, village industries, markets, transport and income-earning opportunities, taking fully into account the role of women and integrating them into the planning and implementation process.

International and regional cooperation:

25. National Governments, international agencies and regional organizations should:

(a) Strengthen the role of appropriate international research and training institutes of the Consultative Group on International Agricultural Research Centers (CGIAR) and the International Board for Soil Research and Management (IBSRAM) as well as regional research centres such as the Woodland Mountain Institutes and the International Center for Integrated Mountain Development in undertaking applied research relevant to watershed development;

(b) Promote regional cooperation and exchange of data and information among countries sharing the same mountain ranges and river basins, particularly those affected by mountain disasters and floods;

Maintain and  
(c) Establish partnerships with non-governmental organizations and other private groups working in watershed development.

Means of implementation

Financial and cost evaluation:

26. Total funding required to implement this programme area is about US\$ 13 billion a year, mostly from national local and private sources. Of the US\$ 13 billion about US\$ 1.9 billion would be needed from international sources. About US\$ 1.7 billion would be related to development and about US\$ 1.7 billion could be ascribed to global environmental issues. About US\$ 30 million is needed for strengthening the capacity of international institutions, in particular those involved in watershed development such as the United Nations Development Programme, the Food and Agriculture Organization of the United Nations and the World Bank.]

27. Financing for the promotion of alternative livelihoods in mountain ecosystems should be viewed as part of a country's anti-poverty or alternative livelihoods programme, which is also discussed in the chapters on Combating Poverty and Meeting Basic Needs and Promoting Sustainable Agriculture and Rural Development.

Scientific and technical means:

28. National Governments and local communities with the cooperation of the appropriate specialized agencies, as well as international and national research centres should:

(a) \*\*(A/CONF.151/PC/WG.I/CRP.12/Rev.1, para. 14g) Consider undertaking pilot projects that combine environmental protection and development functions with particular emphasis on some of the traditional environmental management practices/systems that have good environmental impact;>\*\*

(b) Generate technologies for specific watershed and farm conditions through a participatory approach involving local men and women, researchers and extension agents who will carry out experiments and trials on farm conditions;

(c) Promote technologies of vegetative conservation measures for erosion prevention, in situ moisture management, improved cropping technology, fodder production and agroforestry that are low-cost, simple and easily adopted by local people.

Human resource development:

29. National Governments and local communities should:

(a) Promote a multidisciplinary and cross-sectoral approach in training and dissemination of knowledge to local people on wide-ranging issues such as household production systems, conservation and utilization of arable and non-arable land, treatment of drainage lines and recharging of groundwater, livestock management, fisheries, agroforestry and horticulture;

(b) **\*\***(A/CONF.151/PC/WG.I/CRP.12/Rev.1, para. 14f) <Develop human resources by providing access to education, health, energy and infrastructure;>**\*\***

(c) Promote local awareness and preparedness for disaster prevention and mitigation combined with the latest available technology for early warning and forecasting.

Capacity-building:

30. National Governments with the support of the international community should develop and strengthen national centres for watershed management to encourage a comprehensive approach to the environmental, socio-economic, technological, legislative, financial and administrative aspects and provide support to policy makers, administrators, field staff and farmers for watershed development.

31. The private sector and local communities in cooperation with national Governments should promote local infrastructure development, including communication networks, mini- or micro-hydro development to support cottage industries, and access to markets.

-----



General Assembly

Distr.  
LIMITED

A/CONF.151/PC/WG.I/L.40/Corr.1  
27 March 1992

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE UNITED  
NATIONS CONFERENCE ON ENVIRONMENT  
AND DEVELOPMENT

Fourth session  
New York, 2 March-3 April 1992  
Working Group I  
Agenda item 3 (b)

LAND RESOURCES: SOIL LOSS

Text submitted by the Chairman on the basis of negotiations  
held on document A/CONF.151/PC/100/Add.18

Managing fragile ecosystems: sustainable mountain development  
(Section II, Chapter 5, of Agenda 21)

Corrigendum

1. The beginning of paragraphs 11, 12, 15, 16, 17, 23 24, 28, 29 and 30 should read:

Governments at the appropriate level and with the support of the relevant international and regional organizations should ...

2. Paragraphs 14 and 26 should be in square brackets.
3. Paragraph 16: add a new subparagraph reading

(c) Undertake environmental education for farmers, in particular for women, to help the rural population better understand the ecological issues regarding the sustainable development of mountain ecosystems

4. Subparagraph 24 (a)

For Establish monitoring and evaluation capacities read Maintain and establish monitoring and evaluation capacities

A/CONF.151/PC/WG.I/L.40/Corr.1  
English  
Page 2

5. Subparagraph 25 (c)

For Establish partnerships read Maintain and establish partnerships

-----

Form 675 G (6)  
PROCEDE **Plasdex** \* PROCESS  
MONTREAL TORONTO



## SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT

### **SUMMARY**

The adopted decision for this chapter of Agenda 21 is a consensus document with square brackets around those issues still under negotiations within the biodiversity convention and around unresolved issues within the Means of Implementation. The Secretariat's document PC/100/Add.19 was used as the basis of negotiation. The only contentious issue was the agriculture and trade paragraph which was resolved through some corridor discussions following consideration of the broader trade issue by the Plenary. Deliberations on the programme areas which dealt with plant and animal genetic resources although delayed until resolution of the biodiversity and biotechnology chapters, did result in a consensus text with only square brackets around the phrase "fair and equitable" sharing.

A new programme area on the evaluation of the effects on ultra-violet radiation on agriculture was added to the original list by Argentina during the first day of negotiations.

### **DOCUMENTATION**

A/CONF.151/PC/WG.I/L.42 and Corr.1 Adopted Agenda 21 chapter: Promoting Sustainable Agriculture and Rural Development (replaces PC/100/Add.19).

### **CANADIAN OBJECTIVES**

1. Seek to promote food security and local self-sufficiency as a goal for all nations, rather than focusing on the more narrow goal of increasing food production per se.
2. Seek to link human settlements to rural sustainability with a view towards addressing the optimal carrying capacity of a limited resource base.
3. Seek to promote an understanding that in the near future some unsustainable practices may have to be tolerated in order to achieve a level of agricultural production that will feed the world.
4. Seek to encourage the use of alternative fuels over expanded fossil fuel consumption; such as, renewable energy sources in rural areas of developing countries, and for a transition to renewable energy use in developed countries.

5. Seek to strengthen international standards regarding the use of pesticides.
6. Seek recognition that policies and practices of multinational business corporations are relevant to this topic and that they must be incorporated in discussion.
7. Seek to ensure that this topic does not become equated with Low Input Sustainable Agriculture (LISA) exclusively. LISA could be part of a global sustainable agriculture programme but should not be the whole programme.

#### PREPCOM DISCUSSION

Negotiations on this chapter of Agenda 21 were done on the basis of the Secretariat's document PC/100/Add.19. Canada negotiated as a member of the CANZ group as the proposals of both Australia and New Zealand were consistent with our objectives.

The language used in the programme area titles was modified to introduce the multi-functional character of agriculture and to stress the need for sustainable agricultural practices. In addition, Argentina, as it had done in the Living Marine Resources and Human Health chapters, introduced a new programme area on evaluating the effects of ultra-violet radiation caused by depletion of the stratospheric ozone layer.

Mentioning specific target years in the objectives caused some difficulties for the majority of the delegations. Exactly what the target meant was unclear or it was considered unrealistic to "deliver" on the objective in the suggested time frame. These concerns were addressed by modifying the language of the objectives, thereby clarifying what was expected by the target year and/or making the proposal more realistic.

The EC and CANZ group introduced the need to focus on increasing food availability rather than only increasing food production. This included reviewing policies and practices dealing with harvesting, storage, processing, distribution and marketing at the national, regional and local levels.

The concept of looking at agricultural development as part of the broader land management and development was introduced. This proposal introduced the concept of integrated (holistic) land development that included agricultural activities along with natural resources activities such as rangeland management, forest and wildlife

management and conservation. Counter to this concept, Pakistan introduced an activity which call for governments to develop and implement programmes for the progressive use of non-cultivated land with agricultural potential. This proposal caused some difficulty among a number of delegations because its negative implication for sustainable land management in the broader sense. The addition of the phrase "in a sustainable way" to the end of the proposal by Pakistan made this proposal more acceptable.

The most contentious issue within this chapter dealt with trade and agriculture. The particular paragraph of the Secretariat's text around which the debate was focused dealt with "harmonize multilateral/agricultural trade policies and integrate them with environmental policies to prevent trade protectionism and restricted access to agricultural markets." This language was unacceptable to several delegations, particularly the EC, Finland, CANZ and Argentina. This paragraph was the subject of considerable corridor discussions and was resolved at the eleventh hour of negotiations within the plenary session.

In addition to this paragraph, Korea tried to introduce the concept of "developing and implementing appropriate trading systems to maintain domestic production of basic food stuffs which are critical for land conservation." Their proposal was related to rice cultivation in Korea and not wanting rural poor pushed further into "mining" agriculture. This proposal was not accepted by the Chairman as it conflicted with issues under negotiation in other chapters and other fora.

#### OUTCOME AND ASSESSMENT

The decision document PC/WG.I/L.42 and Corr.1 were adopted by the plenary as representing a consensus. The document contains square bracketed text, however, these are related to negotiations within the INC-Biodiversity and the sections on Means of Implementation which are the subject of the broader issue of financial resources. As such, these bracketed text will be resolved on the basis of negotiations on these related issues.

This chapter of Agenda 21 represents a positive step forward in that it recognizes that sustainable agriculture is much more than increased productivity, that public participation, including indigenous people and women, is essential to effective decision making in both agricultural and rural development, and that agricultural development must be seen as part of overall sustainable land management and development. Increased public education and awareness

raising, strengthening information gathering and dissemination and the need policies and programmes to promote sustainable subsistence agriculture are other examples of positive steps forward represented by this document.

The resulting decision is consistent with Canadian objectives. The objectives and activities promote food security through increasing food availability rather than the simply increasing food production. The need to have sustainable agricultural development, defined locally and on the basis of examining its impacts on natural and other resources in an integrated fashion is also consistent with Canadian objectives.

The programme area on rural energy transition to enhance productivity is consistent with the Canadian objective to encourage the transition in rural areas to diversified energy sources by making available alternative new and renewable sources of energy.

Although the resulting decision does not deal specifically with strengthening international standards regarding the use of pesticides, it does promote the control of the distribution and use of pesticides and call for implementation of the International Code of Conduct on the Distribution and Use of Pesticides. The proposed activities related to research and development of target specific pesticides, management systems, labelling, and information exchange provide an effective integrated pest management regime.

Consistent with the Canadian objectives, the proposed programme areas recognize that the private sector, including multi-national business corporations, need to play a role in achieving sustainable agricultural and rural development. Also consistent with Canadian objectives, objectives and activities consider a wide range of options for achieving sustainable agriculture and has not limited its options to only Low Input Sustainable Agriculture.

No further substantive action is required with respect to this chapter of Agenda 21.

Report prepared by:

Roger Street  
Environment Canada  
(416) 739-4271

Further information:

Keith Valentine  
CIDA  
994-0662



General Assembly

Distr.  
LIMITED

A/CONF.151/PC/WG.I/L.42  
17 March 1992

ORIGINAL: ENGLISH

*Incorporates  
PC/WGI/L.42/CONF.1*

PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Fourth session  
New York, 2 March-3 April 1992  
Working Group I  
Agenda item 3 (b)

LAND RESOURCES: SOIL LOSS

Text submitted by the Chairman on the basis of negotiations  
held on document A/CONF.151/PC/100/Add.19

PROMOTING SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT

(Section II, chapter 6, of Agenda 21)

Attached is the text of A/CONF.151/PC/100/Add.19 as agreed in negotiations on 13, 14 and 17 March 1992. The paragraphs in the Introduction, and those under the headings "Basis for action" and "Means of implementation" have not been negotiated: language on these points will be inserted later, based on the results of ongoing consideration of cross-sectoral issues. Programme areas G and H, on conservation and sustainable utilization of plant and animal genetic resources for agriculture have not been discussed, in order to benefit from the upcoming discussions on biodiversity and biotechnology.

INTRODUCTION

1. By the year 2025, 83 per cent of the expected global population of 8.5 billion will be living in developing countries. Yet the capacity of available resources and technologies to satisfy the demands of this growing population for food and other agricultural commodities remains uncertain. ~~\*\* (A/CONF.151/PC/61/para. 22)~~ Agriculture has to meet this challenge, mainly by increasing the production on land already in use, and by avoiding further encroachment on land that is only marginally suitable.>\*\*

2. The Secretary-General of the Conference, in A/CONF.151/PC/61, presented the Den Bosch Declaration on Sustainable Agriculture and Rural Development at the Third Preparatory Committee in compliance with the request of the Second Preparatory Committee meeting. There was general agreement on the list of programme areas contained in Options for Agenda 21 in Promoting Sustainable Agriculture and Rural Development (A/CONF.151/PC/WG.I/CRP.12/Rev.1).

SEE  
attached

3. Major adjustments are needed in agricultural, environmental and macroeconomic policy, at both national and international levels, in developed as well as developing countries, to create the conditions for sustainable agriculture and rural development (SARD). The major objective of SARD is to increase food production and food security. This will involve ensuring an appropriate balance between self-sufficiency and production for markets; employment and income generation to alleviate poverty; and natural resource management and environmental protection.

4. The priority must be on maintaining and improving the capacity of the higher potential agricultural lands to support an expanding population. However, conserving and rehabilitating the natural resources on lower potential lands in order to maintain sustainable man/land ratios is also necessary. The main tools of SARD are policy and agrarian reform, participation, income diversification, land conservation and improved management of inputs. The success of SARD will depend largely on the support and participation of rural people, national Governments, the private sector and international cooperation, including technical and scientific cooperation.

5. A list of the programme areas is as follows:

- A. Agricultural policy review, planning and integrated programming in light of the multifunctional aspect of agriculture, particularly with regard to food security and sustainable development
- B. Ensuring people's participation and promoting human resources development for sustainable agriculture
- C. Improving farm production and farming systems through diversification of farm and non-farm employment and infrastructure development
- D. Land resources planning information and education for agriculture
- E. Land conservation and rehabilitation
- F. Water for sustainable food production and sustainable rural development (see reference note 5/)
- G. Conservation and sustainable utilization of plant genetic resources for sustainable agriculture
- H. Conservation and sustainable utilization of animal genetic resources for sustainable agriculture

3. Major adjustments are needed in agricultural, environmental and macroeconomic policy, at both national and international levels, in developed as well as developing countries, to create the conditions for sustainable agriculture and rural development (SARD). The major objective of SARD is to increase food production in a sustainable way and enhance food security. This will involve education initiatives, utilization of economic incentives, and the development of appropriate and new technologies, thus ensuring stable supplies of nutritionally adequate food and access to those supplies by vulnerable groups and production for markets; employment and income generation to alleviate poverty; and natural resource management and environmental protection.

- I. Integrated pest management and control in agriculture
- J. Sustainable plant nutrition to increase food production
- K. Rural energy transition to enhance productivity
- L. Evaluation of the effects of ultraviolet radiation/ *on plants and animals* caused by the depletion of stratospheric ozone layer ~~on agriculture~~ (see reference note 8/).

#### PROGRAMME AREAS

- A. AGRICULTURAL POLICY REVIEW, PLANNING AND INTEGRATED PROGRAMMES IN LIGHT OF THE MULTIFUNCTIONAL ASPECT OF AGRICULTURE, PARTICULARLY WITH REGARD TO FOOD SECURITY AND SUSTAINABLE DEVELOPMENT

#### Basis for action

6. **\*\* (PC/WG.I/CRP.12/Rev.1, para. 28)** < There is a need to integrate sustainable development considerations with agricultural policy analysis and planning in all countries, particularly in developing countries. The recommendations should contribute directly to development of realistic and operational medium- to long-term plans and programmes, and thus to concrete actions. Support to and monitoring of implementation should follow. > \*\*

7. The absence of a coherent national policy framework for sustainable agriculture and rural development (SARD) is widespread and is not limited to the developing countries. In particular the economies in transition from planned to market-oriented systems need such a framework to incorporate environmental considerations into economic activities, including agriculture. All countries need to assess comprehensively the impacts of such policies on food and agriculture sector performance, on food security, rural welfare and international trading relations as a means for identifying appropriate offsetting measures. The major thrust of food security in this case is to bring ~~a substantial improvement in agricultural production and the alleviation of poverty and improvement of the quality of life of the rural population.~~

*about a significant increase*  
8. Sound policy decisions pertaining to international trade and capital *in a sustainable way and achieve substantial improve* flows also necessitate action to overcome: (a) a lack of awareness of the *entitlement to* environmental costs incurred by sectoral and macroeconomic policies and hence *adequate* their threat to sustainability; (b) insufficient skills and experience in *feed & cult.* incorporating issues of sustainability into policies and programmes; and *appropriate* (c) inadequacy of tools of analysis and monitoring. *food surplus*

#### Objectives

9. By 1995, to review and, where appropriate, establish a programme to integrate environmental and sustainable development with policy analysis for



the food and agriculture sector and relevant macroeconomic policy analysis, formulation and implementation.

10. To maintain and develop, as appropriate, operational multi-sectoral plans, programmes and policy measures, including programmes and measures to enhance sustainable food production and food security within the framework of sustainable development no later than 1998.

11. To maintain and enhance the capability of developing countries, and particularly the least developed ones, to themselves manage policy, programming and planning activities no later than 2005.

#### Activities

##### Management:

12. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Carry out national policy reviews related to food security including adequate levels and stability of food supply and access to food by all households;

(b) Review national and regional agricultural policy in relation to inter alia foreign trade, price policy, exchange rate policies, agricultural subsidies and taxes, as well as organization for regional economic integration;

(c) Implement policies to positively influence land tenure and property rights with due recognition of minimum size of land holding to maintain production and check further fragmentation;

(d) Consider demographic trends and population movements and identify critical areas for agricultural production;

(e) Formulate, introduce and monitor policies, laws and regulations and incentives, leading to sustainable agricultural and rural development and improved food security; and to the development and transfer of appropriate farm technologies, including, where appropriate, low-input sustainable agricultural (LISA) systems;

(f) Support national and regional early warning systems through food security assistance schemes that monitor food supply/demand and factors affecting household access to food;

(g) Review policies with respect to improving harvesting, storage, processing, distribution, and marketing of products at the local, national, and regional levels;

(h) Formulate and implement integrated agricultural projects that include other natural resources activities, such as rangelands, forest, and wildlife management, as appropriate;

(i) Promote social and economic research and policies that encourage sustainable agriculture development particularly in fragile ecosystems and densely populated areas;

(j) Identify storage and distribution problems affecting food availability; support research, where necessary, to overcome these problems and cooperate with producers and distributors to implement improved practices and systems.

Data and information:

13. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Cooperate actively to expand and improve the information and early warning system on food and agriculture at both regional and national level;

(b) Examine and undertake surveys and research to establish baseline information on the status of natural resources relating to food and agriculture production and planning in order to assess the impacts of various uses on these resources, and develop methodologies and tools of analysis, such as environmental accounting;

International and regional cooperation and coordination:

14. United Nations agencies such as FAO, the World Bank, IFAD, GATT and regional organizations and bilateral donor agencies and other bodies should <sup>within their respective mandates.</sup> assume a role in working with national Governments in the following activities:

(a) Implement integrated and sustainable agricultural development and food security strategies at subregional level that use regional production and trade potentials including organizations for regional economic integration to promote food security;

(b) [Harmonize agricultural trade policies and integrate them closely with environmental policies to prevent trade protectionism, and restricted access to agricultural markets];

(c) Strengthen and establish national, regional and international systems and networks to understand the interaction between agriculture and the state of the environment, identify ecologically sound technologies, and exchange information on data sources, policies, and techniques and tools of analysis;

(d) [Integrate agricultural and environment policies with a view to promoting sustainable agriculture in the context of relevant internationally agreed principles on trade and environment.]

Means of implementation

Financing and cost evaluation:

- [ 15. The total financing required to implement this programme area is about US\$ 3,000 million per year, including international concessional financing of about US\$ 450 million. This includes about US\$ 430 million for accelerated development and US\$ 20 million for strengthening the capacity of international institutions. ]

Scientific and technological means:

- (Governments at the appropriate level and with the support of the relevant international and regional organizations should.)*
16. ~~National Governments and appropriate international and non-governmental organizations (NGOs)~~ should assist farming households and communities to apply technologies related to improved food production and security, including storage, monitoring of production and distribution.

Human resources development:

- (Governments at the appropriate level and with the support of the relevant international and regional organizations should.)*
17. ~~National Governments~~ should:

(a) Involve and train local economists, planners and analysts to initiate national and international policy reviews and develop frameworks for sustainable agriculture;

(b) Establish legal measures to promote access of women to land and remove biases in their involvement in rural development.

Capacity-building:

- at the appropriate level and the relevant*
18. ~~National Governments~~ with the support of appropriate international and regional institutions should strengthen the ministries for agriculture, natural resources and planning.

*organizations*

B. ENSURING PEOPLE'S PARTICIPATION AND PROMOTING HUMAN RESOURCES DEVELOPMENT FOR SUSTAINABLE AGRICULTURE

Basis for action

19. ~~\*\* (PC/WG.I/CRP.12/Rev.1, para. 32)~~ This component bridges policy and integrated resource management. The greater the degree of community control over the resources on which it relies, the greater will be the incentive for economic and human resources development. At the same time, policy instruments to reconcile long-run and short-run requirements must be set by the national Government. The approaches focus on fostering self-reliance and cooperation, providing information, and supporting user-based organizations. ~~\*\* \*\* (PC/WG.I/CRP.12/Rev.1, para. 33)~~ Emphasis should be on management practices, building agreements for changes in resource utilization: the rights and duties associated with use of land, water and forests, the functioning of markets, prices, and the access to information, capital and

inputs. This would require training and capacity building to assume greater responsibilities in sustainable development efforts. > \*\*2/, 3/

### Objectives

20. Promote greater public awareness of the role of people's participation and people's organizations, especially women's groups, youth, indigenous people, local communities and small farmers, in sustainable agriculture and rural development.

21. Ensure equitable access of rural people, <sup>and people under occupation]</sup> particularly women, small farmers, landless, and indigenous people, to land, water, forest resources, and to technologies, financing, marketing, processing and distribution.

22. Strengthen and develop the management and the internal capacities of rural people's organizations and extension services, and decentralize decision-making at the lowest community level.

### Activities

#### Management:

23. Governments, at the appropriate level and with the support of the relevant international and regional organizations, should:

(a) Develop and improve integrated agricultural extension services and facilities and rural organizations and undertake natural resource management and food security activities, taking into account the different needs of subsistence agriculture as well as market-oriented crops;

(b) Review and refocus existing measures to achieve wider access to land, water and forest resources and ensure equal rights of women and other disadvantaged groups, with particular emphasis on rural populations, indigenous peoples and local communities; - [and people under occupation]

(c) Assign clear titles, rights and responsibilities for land and for individuals or communities to encourage investment in land resources;

(d) Develop guidelines for decentralization policies for rural development through reorganization and strengthening of rural institutions;

(e) Develop policies in extension, training, pricing, input distribution, credit and taxation to ensure necessary incentives and equitable access by the poor to production-support services;

(f) Provide support services and training, recognizing the variation in agricultural circumstances and practices by location: the optimum use of on-farm inputs and the minimal use of external inputs; optimum use of local natural resources and management of renewable energy sources; and the establishment of networks that deal with the exchange of information on alternative forms of agriculture.

Data and information:

24. Governments at the appropriate level, with the support of the relevant international and regional organizations, should collect, analyse, and disseminate information on human resources, the role of Governments, local communities and NGOs in social innovation and strategies for rural development.

International and regional cooperation and coordination:

25. Appropriate international and regional agencies should:

(a) Reinforce their work with NGOs in collecting and disseminating information on people's participation and people's organizations, testing participatory development methods, training and education for human resource development and strengthening management structures of rural organizations; [and participatory development methods]

(b) Help develop information available through NGOs and promote an international ecological agricultural network to accelerate development and implementation of ecological agriculture practices.

Means of implementation

Financing and cost evaluation:

[26. The total financing required to implement this programme area is about US\$ 4,400 million per year, including international concessional financing of about US\$ 650 million. This includes US\$ 640 million for accelerated development and US\$ 10 million for strengthening international institutions.]

Scientific and technological means:

27. ~~National Governments, international and regional organizations~~ should: See: attached

(a) Encourage people's participation on farm technology development and transfer, incorporating indigenous ecological knowledge and practices;

(b) Launch applied research on participatory methodologies, management strategies, and local organizations.

Human resources development:

28. ~~Governments should~~ See CH provide management and technical training to government administrators and members of resource user groups in the principles, practice and benefits of people's participation in rural development.

The beginning of paragraphs 16, 17, 18, 27, 28, 29, 38, 39, 40, 49, 50, 51, 59, 60, 61, 95, 96, 97, 107, 108, 109, 117, 118, and 119 should read:

Governments at the appropriate level and with the support of the relevant international regional organizations should...

Capacity-building:

29. <sup>See. att.</sup> Governments should introduce management strategies and mechanisms, such as accounting and audit services for rural people's organizations and institutions for human resources development; delegate administrative and financial responsibilities to local levels for decision-making, revenue-raising and expenditure.

C. IMPROVING FARM PRODUCTION AND FARMING SYSTEMS THROUGH  
DIVERSIFICATION OF FARM AND NON-FARM EMPLOYMENT AND  
INFRASTRUCTURE DEVELOPMENT

Basis for action

30. ~~\*\* (PC/WG.I/CRP.12/Rev.1, para. 38)~~ Agriculture needs to be intensified to meet future demands for commodities and to avoid further expansion onto marginal lands and encroachment on fragile ecosystems. Increased use of external inputs and development of specialized production and farming systems tend to increase vulnerability to environmental stresses and market fluctuations. There is, therefore, a need to intensify agriculture by diversifying the production systems for maximum efficiency in the utilization of local resources while minimizing environmental and economic risks. Where intensification of farming systems is not possible, other on and off-farm employment opportunities should be identified and developed, such as cottage industries, wildlife utilization, aquaculture and fisheries, non-farm activities, such as light village-based manufacturing, farm commodity processing, agribusiness, recreation and tourism, etc.>\*\*

Objectives

31. To improve farm productivity in a sustainable manner as well as increase diversification, efficiency, food security and rural incomes, while ensuring that risks to the ecosystem are minimized.

32. To enhance the self-reliance of farmers to develop and improve rural infrastructure, and facilitate transfer of environmentally sound technologies for integrated production and farming systems including indigenous technologies and the sustainable use of biological and ecological processes, including agroforestry, sustainable wildlife conservation and management, aquaculture, inland fisheries, and animal husbandry.

33. To create farm and non-farm employment opportunities particularly among the poor and those living in marginal areas, taking into account the alternative livelihood proposal inter alia on dryland areas.

Activities

Management:

34. Governments, at the appropriate level and with the support of the relevant international and regional organizations, should:

(a) Develop and disseminate to farming households integrated farm management technologies, such as crop rotation, organic manuring and other techniques involving reduced use of agricultural chemicals, multiple techniques for sources of nutrients and the efficient utilization of external inputs, while enhancing techniques for waste and by-product utilization and prevention of pre- and post-harvest losses, taking particular note of the role of women.

(b) Create non-farm employment opportunities through private small-scale agro-processing units, rural service centres and related infrastructural improvements;

(c) Promote and improve rural financial networks which utilize investment capital resources raised locally;

(d) Provide the essential rural infrastructure for access to agricultural inputs and services as well as to national and local markets, and reduce food losses;

(e) Initiate and maintain farm surveys, on-farm testing of appropriate technologies and dialogue with rural communities to identify constraints and bottlenecks and find solutions;

(f) Analyse and identify possibilities for economic integration of agricultural and forestry activities, as well as water and fisheries; and take effective measures to encourage forest management/growing of trees by farmers (farm forestry) as an option for resource development.

Data and information:

35. Governments, at the appropriate level and with the support of the relevant international and regional organizations, should:

(a) Analyse the effects of technical innovations and incentives on farm-household income and well-being;

(b) Initiate and maintain on-farm and off-farm programmes to collect and record indigenous knowledge.

International and regional cooperation and coordination:

36. International institutions such as FAO, International Fund for Agricultural Development (IFAD), international agricultural research centres (CGIAR) as well as regional centres should diagnose the world's major agro-ecosystems, their extension, ecological and socio-economic characteristics, their susceptibility to deterioration, and their productive potential. This could form the basis for technology development and exchange, and regional research collaboration.



Means of implementation

Financing and cost evaluation:

- [ 37. The total financing required to implement this programme area is about US\$ 10,000 million per year, including international concessional financing of about US\$ 1,500 million. This includes US\$ 10 million for strengthening international institutions. The remaining amount is for development. ]

Scientific and technological means:

38. <sup>See att.</sup> ~~Governments with the support of the international community~~ should strengthen research on agricultural production systems in areas with different endowments and agro-ecological zones, including comparative analysis between intensification and diversification and different levels of external and internal inputs.

Human resources development:

39. <sup>See att.</sup> ~~National Governments~~ should:

- (a) Promote educational and vocational training for farmers and rural communities through formal and non-formal education;
- (b) Launch awareness and training programmes for entrepreneurs, managers, bankers and traders in rural servicing and small-scale agro-processing techniques.

Capacity-building:

40. <sup>See att.</sup> ~~National Governments~~ should:

- (a) Improve their organizational capacity to deal with issues related to off-farm activities and rural industry development;
- (b) Expand credit facilities and rural infrastructure related to processing, transportation and marketing.

D. LAND RESOURCES PLANNING, INFORMATION AND EDUCATION  
FOR AGRICULTURE

Basis for action

41. ~~\*\*{PC/WG.I/CRP.12/Rev.1, para. 45}~~ Inappropriate and uncontrolled land uses are a major cause of degradation and depletion of land resources. Present land use often disregards the actual potentials, carrying capacities and limitations of land resources, as well as their diversity in space. The world's population, now at 5.4 billion, is estimated to be 6.25 billion by the turn of the century. The need to increase food production to meet the

expanding needs of the population will put enormous pressure on all natural resources, including land.>\*\*

42. Poverty and malnutrition are already endemic in many regions. The destruction and degradation of agricultural and environmental resources is a major issue. Techniques for increasing production and conserving soil and water resources are already available, but are not widely or systematically applied. A systematic approach is needed for identifying land uses and production systems that are sustainable in each land and climate zone, including the economic, social and institutional mechanisms necessary for their implementation. 4/

#### Objectives

43. To harmonize planning procedures, involve farmers in the planning process, collect land resource data, design and establish databases, define land units, ~~calculate their potential outputs, and select the most suitable resource uses.~~

*areas of similar capability, identify resource problems and values that need to be taken into account to establish mechanisms to*  
44. To establish agricultural planning bodies at national and local levels to decide priorities, channel resources, and implement programmes. *and sound resources*

#### Activities

##### Management:

45. Governments, at the appropriate level and with the support of the relevant international and regional organizations, should:

(a) Establish and strengthen agricultural land use and land resource departments of planning, management, education and information, at national and local levels;

(b) Initiate and maintain district and village agricultural land resources planning, management and conservation groups to assist in problem identification, development of technical and management solutions, and project implementation.

##### Data and information:

46. Governments, at the appropriate level and with the support of the relevant international and regional organizations, should:

(a) Collect, continuously monitor, update and disseminate information, whenever possible, on the utilization of natural resources and living conditions, climate, water and soil factors, and on land use, distribution of vegetation cover and animal species, wild plants utilization, production systems and yields, costs and prices, and social and cultural considerations which affect agricultural and adjacent land use;

(b) Establish programmes to provide information, promote discussion, and encourage the formation of management groups.

International and regional cooperation and coordination:

47. The appropriate United Nations agencies and regional organizations should:

(a) Strengthen or establish international, regional and subregional technical working groups with specific terms of reference and budgets to promote integrated use of land resources for agriculture, in planning, data collection, and diffusion of simulation models of production and information dissemination;

(b) Develop internationally acceptable methodologies for establishment of databases, description of land uses, and multiple goal optimization.

Means of implementation

Financing and cost evaluation:

[ 48. The total financing required to implement this programme area is about US\$ 1,700 million per year, including international concessional financing of about US\$ 250 million. This includes US\$ 2 million for strengthening international institutions. The remaining amount is for development. ]

Scientific and technological means:

49. ~~National Governments should:~~ *See att.*

(a) Develop databases and geographical information systems to store and display physical, social and economic information pertaining to agriculture, and the definition of ecological zones and development areas.

(b) Select combinations of land uses and production systems appropriate to land units through multiple goal optimization procedures, strengthen delivery systems and local community participation;

(c) Encourage integrated planning at the watershed and landscape level to reduce soil loss and protect surface and groundwater resources from chemical pollution.

Human resources development:

50. ~~National Governments should:~~ *See att.*

(a) Train professionals and planning groups at national, district, and village level through formal and informal instructional courses, travel and interaction;

(b) Generate discussion at all levels on policy, development and environmental issues related to agricultural land use and management, through media programmes, conferences, and seminars.

Capacity-building:

51. <sup>See att.</sup> National Governments, in cooperation with appropriate international agencies, should:

(a) Establish land resources mapping and planning units at national, district, and village levels to act as focal points and links between institutions and disciplines, and between Governments and people.

(b) Establish or strengthen Governments and international institutions with responsibility for agricultural resource survey, management, and development; rationalize and strengthen legal frameworks; and provide equipment and technical assistance.

E. LAND CONSERVATION AND REHABILITATION

Basis for action

52. ~~\*\* (PC/WG.I/CRP.12/Rev.1, para. 48)~~ Land degradation is the most important environmental problem affecting extensive areas of land in both developed and developing countries. The problem of soil erosion is particularly acute in developing countries, while problems of salinization, waterlogging, soil pollution and loss of soil fertility are increasing in all countries. Land degradation is serious because the productivity of huge areas of land is declining just when populations are increasing rapidly and the demand on the land is growing to produce more food, fibre and fuel. Efforts to control land degradation, particularly in developing countries, have had limited success to date. Well planned, long-term national and regional land conservation and rehabilitation programmes, with strong political support and adequate funding, are now needed. While land use planning and land zoning, combined with better land management, should provide long-term solutions, it is urgent to arrest land degradation and launch conservation and rehabilitation programmes in the most critically affected and vulnerable areas.\*\*\*

Objectives

53. By 2000, to review and initiate as appropriate national land resource surveys, detailing the location, extent and severity of land degradation.

54. To prepare and implement comprehensive policies and programmes leading to the reclamation of degraded lands and the conservation of areas at risk, as well as improve the general planning, management and utilization of land resources and preserve soil fertility for sustainable agricultural development.

Activities

Management:

55. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Develop and implement programmes to remove and resolve the physical, social and economic causes of land degradation, such as land tenure, appropriate trading systems and agricultural pricing structures which lead to inappropriate land use management;

(b) Provide incentives and, where appropriate, <sup>and possible</sup> resources for the participation of local communities in the planning, implementation and maintenance of their own conservation and reclamation programmes;

(c) Develop and implement programmes for the rehabilitation of land degraded by water-logging and salinity;

(d) Develop and implement programmes for the progressive use of non-cultivated land with agricultural potential in a sustainable way.

Data and information:

56. Governments, at the appropriate level and with the support of the relevant international and regional organizations, should:

(a) Conduct periodic surveys to assess the extent and state of each <sup>its</sup> nation's land resources;

(b) Strengthen and establish national land resource data banks, including identification of the location, extent and severity of existing land degradation as well as areas at risk and evaluate the progress of the conservation and rehabilitation programmes launched in this regard;

(c) Collect and record information on indigenous conservation and rehabilitation practices and farming systems as a basis for research and extension programmes.

International and regional cooperation and coordination:

57. The appropriate United Nations agencies, regional organizations and NGOs should:

(a) Develop priority conservation and rehabilitation programmes with advisory services to Governments and regional organizations;

(b) Establish regional and subregional networks for scientists and technicians to exchange experiences, develop joint programmes and spread successful technologies on land conservation and rehabilitation.

Means of implementation

Financing and cost evaluation:

- [ 58. The total financing required to implement this programme area is about US\$ 5,000 million per year, including international concessional financing of about US\$ 800 million. This includes US\$ 10 million for strengthening international institutions. The remaining amount is for development. ]

Scientific and technological means:

- See att.*  
59. ~~National Governments, appropriate United Nations agencies and international and national research centres~~ should assist farming household communities to investigate and promote site specific technologies and farming systems that conserve and rehabilitate land, while increasing agricultural production, including conservation tillage agroforestry, terracing and mixed cropping.

Human resources development:

- See att.*  
60. ~~National Governments~~ should train field staff and land users in indigenous and modern techniques of conservation and rehabilitation, and establish training facilities for extension staff and land users.

Capacity-building:

- See att.*  
61. ~~National Governments, appropriate United Nations agencies and international and national research centres,~~ should:

(a) Develop and strengthen national research institutional capacity to identify and implement effective conservation and rehabilitation practices that are appropriate to the existing socio-economic physical conditions of the land users;

(b) Coordinate all land conservation and rehabilitation policies, strategies and programmes with related ongoing programmes, such as national environment action plans, the Tropical Forestry Action Plan and national development programmes.

F. WATER FOR SUSTAINABLE FOOD PRODUCTION AND SUSTAINABLE  
RURAL DEVELOPMENT

62. This programme area is included under "Freshwater resources", programme area F. 5/

*See Annex 1 for changes to programme area p. 3*

G. CONSERVATION AND SUSTAINABLE UTILIZATION OF PLANT GENETIC RESOURCES FOR SUSTAINABLE AGRICULTURE

Basis for action

63. **\*\***(PC/WG.I/CRP.12/Rev.1/para. 58) Plant genetic resources for agriculture (PGRA) are an essential resource to meet future needs for food. Threats to the security of these resources are growing, and efforts to conserve, develop and use genetic diversity are underfunded and understaffed. Many existing genebanks provide inadequate security and, in some instances, the loss of plant genetic diversity in genebanks is as great as it is in the field. Therefore, there is an urgent need to strengthen global initiatives for security [and sharing of the results of biotechnology derived from these genetic materials.] **\*\***

64. **\*\***(PC/WG.I/CRP.12/Rev.1/paras. 59-60) The primary objective is to safeguard the world's genetic resources while preserving them to use sustainably. This includes the development of measures to facilitate the conservation and use of plant genetic resources, networks of in situ conservation areas and use of tools such as ex situ collections, germ plasma banks, and biotechnology. Special emphasis could be placed on the building of endogenous capacity for characterization, evaluation and utilization of PGRA, particularly for the minor crops and other underutilized or non-utilized species of food and agriculture, including tree species for agro-forestry. Subsequent action could be aimed at consolidation and efficient management of networks of in situ conservation areas and use of tools such as ex situ collections, germ plasma banks, and biotechnology. **\*\***

65. Major gaps and weaknesses exist in the capacity of existing national and international mechanisms to assess, study, monitor and use plant genetic resources to increase food production. Existing institutional capacity, structures and programmes are generally inadequate and largely underfunded. There is genetic erosion of invaluable crop species. Existing diversity in crop species is not used to the extent possible for increased food production in a sustainable way. 6/

Objectives

66. By 2000, to complete this first regeneration and safe duplication of all existing ex situ collections on a world-wide basis.

67. By 2000, to collect and study plants useful for increasing food production through joint activities and training of networks of collaborating institutions.

68. By 2010, to integrate PGRA into sustainable agriculture programmes world wide.

Activities

Management:

69. Governments at the appropriate level, with the support of the relevant international and regional organizations should:

(a) ~~\*\* (PC/WG.I/CRP.12/Rev.1/paras. 14-15)~~ Develop and strengthen institutional capacity, structures and programmes for conservation and use of PGRA;

(b) Strengthen research in the public domain on PGRA utilization, with the objectives of sustainable agriculture and rural development in view;

(c) Develop multiplication/propagation, exchange and dissemination facilities for PGRAs (seeds and planting materials), particularly in developing countries; monitoring, control and evaluation of plant introductions.>\*\*

Data and information:

70. Governments, at the appropriate level and with the support of the relevant international and regional organizations, should:

(a) ~~\*\* (PC/WG.I/CRP.12/Rev.1, p. 15)~~ [Develop strategies for networks of in situ conservation areas and use of tools such as ex situ collections, germplasm banks, and biotechnology];

(b) Establish ex situ base collection networks;

(c) Prepare periodic "state-of-the-world" reports on PGRA;>\*\*

(d) Characterize and evaluate PGRA material collected; disseminate information to facilitate the use of PGRA collections, and assess genetic variation in collections.

International and regional cooperation and coordination:

71. The appropriate United Nations agencies and regional organizations should:

(a) ~~\*\* (PC/WG.I/CRP.12/Rev.1, p. 15)~~ Establish a global system for exchange of technologies and information and early warning systems on PGRA;

(b) Organize a Fourth International Conference on PGRA;

(c) [Prepare a rolling global plan of action on PGRA];

(d) [Develop mechanisms to realize farmers' rights] or alternatively, add [develop mechanisms on breeders' rights];

(e) [Develop further legal instruments, as appropriate].>\*\*



Means of implementation

Financing and cost evaluation:

72. The total financing required to implement this programme area is about US\$ 600 million per year, including international concessional financing of about US\$ 300 million. This includes about US\$ 10 million for strengthening international institutions, the remaining US\$ 290 million to be divided between development and global environmental issues.

Scientific and technological means:

73. National Governments, in cooperation with the appropriate international and national research centres, should:

- (a) Develop basic science research in areas such as plant taxonomy and phytogeography, utilizing recent developments, such as computer sciences, molecular genetics and in vitro cryopreservation;
- (b) Develop major collaborative projects between research programmes in developed and developing countries, particularly for the enhancement of poorly known or neglected crops;
- (c) Promote cost-effective technologies for keeping duplicate sets of ex situ collections (that can also be used by local communities);
- (d) Develop further conservation sciences in relation to in situ conservation and technical means to link it with ex situ conservation efforts.

Human resources development:

74. National Governments, in cooperation with the appropriate international and national research centres, should:

- (a) Promote training programmes at both undergraduate and post-graduate levels in conservation sciences for running PGRA facilities and for the design and implementation of national programmes in PGRA;
- (b) Raise the awareness of agricultural extension services in order to link PGRA activities with user communities;
- (c) Develop training materials to promote conservation and utilization of PGRA at local level.

Capacity-building:

75. National Governments should:

- (a) Establish national policies to provide legal status and strengthen legal aspects of PGRA, including long-term financial commitment for germplasm collections and implementation of activities in PGRA;

(b) Promote the concept of farmers' rights and ensure its effective introduction.

*see Corr! for changes to programme area*

H. CONSERVATION AND SUSTAINABLE UTILIZATION OF ANIMAL GENETIC RESOURCES FOR SUSTAINABLE AGRICULTURE

Basis for action

76. **\*\***(PC/WG.I/CRP.12/Rev.1, para. 63)< The need for increased quantity and quality of animal products and for draught animals calls for conservation of the existing diversity of animal breeds to meet future requirements, including those for use in biotechnology. Some local animal breeds have unique attributes for adaptation, disease resistance and specific uses which, in addition to their socio-cultural value, should be preserved. These local breeds are threatened by extinction as a result of the introduction of exotic breeds and of changes in livestock production systems.>**\*\***

Objectives

77. By 1994, to enumerate all breeds of livestock used in animal agriculture and begin a 10-year programme of action.

78. By 2000, to establish action programmes to identify up to 500 breeds at risk together with appropriate preservation measures.

79. By 2000, to establish development programmes for up to 100 indigenous breeds in order to guarantee their survival, avoiding the risk of their being replaced by breed substitution or cross-breeding programmes.

Activities

Management:

80. Governments, at the appropriate level and with the support of the relevant international and regional organizations, should:

(a) Draw up breed preservation plans, for endangered populations, including semen/embryo collection and storage, or in situ preservation;

(b) Plan and initiate breed development strategies;

(c) Select indigenous populations on the basis of regional importance and genetic uniqueness, for a (first-phase) seven-year programme, followed by selection of an additional cohort of indigenous breeds for development.

Data and information:

81. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) ~~\*\* (PC/WG.I/CRP.12/Rev.1, para. 65)~~ < Prepare and complete national inventories of available animal genetic resources. Cryogenic storage could be given priority over characterization and evaluation. Training of nationals in conservation and assessment techniques would be given special attention.> \*\*

(b) Prepare and publish a global inventory of animal genetic resources, describing each breed, its effective population size and a limited set of key production parameters;

(c) Prepare and publish a World Watch list on farm animal species at risk to enable national Governments to take action to preserve endangered breeds and to seek technical assistance, where necessary.

International and regional cooperation and coordination:

82. The appropriate United Nations and regional agencies should:

(a) Promote the establishment of regional gene banks to the extent that they are justified, based on principles of technical cooperation among developing countries (TCDC);

(b) ~~\*\* (PC/WG.I/CRP.12/Rev.1, para. 67)~~ < Process, store and analyse animal genetic data at the global level, including: production of a World Watch list and Early Warning of Endangered Breeds; global assessment of scientific and intergovernmental guidance of the programme and review of regional and national activities; development of methodologies, norms and standards (including international agreements), monitoring of their implementation and related technical and financial assistance;> \*\*

(c) Undertake research in gene technology/genome mapping to demonstrate that many breeds share a common DNA heritage that may enable geneticists to sharpen the scientific rigour of choosing which breeds should be preserved.

Means of implementation

Financing and cost evaluation:

83. The total financing required to implement this programme area is about US\$ 200 million per year, including international concessional financing of about US\$ 100 million. This includes about US\$ 10 million for strengthening international institutions, the remaining US\$ 80 million to be divided between development and global environmental issues.

Scientific and technological means:

84. National Governments should:

(a) Use computer-based data banks and questionnaires to prepare a Global Inventory/World Watch list;

(b) Using cryogenic storage of germplasm, preserve breeds at serious risk and other material from which genes can be reconstructed.

Human resources development:

85. National Governments, in cooperation with the appropriate international and national research centres, should:

(a) Sponsor training courses for nationals to obtain the necessary expertise for data collection and handling and for the sampling of genetic material;

(b) Enable scientists and managers to establish an information base for indigenous livestock breeds and promote programmes to develop and conserve essential livestock genetic material.

Capacity-building:

86. National Governments should:

(a) Establish in-country facilities for artificial insemination centres and in situ breeding farms;

(b) Promote in-country programmes and related physical infrastructure for animal livestock conservation and breed development, as well as for strengthening national capacities to take preventive action when breeds are endangered.

I. INTEGRATED PEST MANAGEMENT AND CONTROL IN AGRICULTURE

Basis for action

87. **\*\***(PC/WG.I/CRP.12/Rev.1, para. 68)< World food demand projections indicate an increase of 50 per cent by the year 2000; which will more than double again by 2050. Conservative estimates put pre- and post-harvest losses caused by pests between 25 and 50 per cent. Pests affecting animal health also cause heavy losses and in many areas prevent livestock development. Chemical control of agricultural pests has dominated the scene, but its overuse has adverse effects on the farm budgets, human health and the environment as well as on international trade. New pest problems continue to develop. Integrated pest management, which combines biological control, host plant resistance, and appropriate farming practices and minimizes the use of pesticides, is the best option for the future, as it guarantees yields, reduces costs, is environmentally friendly and contributes to the sustainability of agriculture. Integrated pest management should go hand in hand with appropriate pesticide management to allow for pesticide regulation and control, including trade and for the safe handling and disposal of pesticides particularly those that are toxic and persistent.>**\*\***

Objectives

88. No later than the year 2000 to improve and implement plant protection and animal health services, including mechanisms to control the distribution and use of pesticides; and implement the International Code of Conduct on the Distribution and Use of Pesticides.

89. To improve and implement programmes to put integrated pest management practices within the reach of the farmers through farmer networks, extension services and research institutions.

90. No later than the year 1988 to establish operational and interactive networks among farmers, researchers and extension services to promote and develop integrated pest management.

Activities

Management:

91. Governments, at the appropriate level and with the support of the relevant international and regional organizations, should:

(a) Review and reform national policies and the mechanisms that would ensure the safe and appropriate use of pesticides, for example, pesticide pricing, pest control brigades, price-structure of inputs and outputs and integrated pest management policies and action plans;

(b) Develop and adopt efficient management systems to control and monitor the incidence of pests and disease in agriculture and the distribution and use of pesticides at country level;

(c) Encourage research and development into pesticides that are target specific and readily degrade into harmless constituent parts after use;

(d) Ensure that pesticide labels provide farmers with understandable information about safe handling, application and disposal.

Data and information:

92. Governments, at the appropriate level and with the support of the relevant international and regional organizations, should:

(a) Consolidate and harmonize existing information and programmes on pesticides uses that have been banned or severely restricted in different countries;

(b) Consolidate, document and disseminate information on biological control agents and organic pesticides, as well as on traditional and other relevant knowledge and skills regarding alternative non-chemical ways of controlling pests;

(c) Undertake national surveys to establish baseline information on the use of pesticides in each country and the side-effects on human health and environment, and also to undertake appropriate education.

International and regional cooperation and coordination:

93. Appropriate United Nations agencies and regional organizations should:

(a) Establish a system for collecting, analysing and disseminating data on the quantity and quality of pesticides used every year and their impact on human health and the environment;

(b) Strengthen regional interdisciplinary projects and establish IPM networks to demonstrate the social, economic and environmental benefits of integrated pest management for food and cash crops in agriculture.

(c) *See bottom of page*  
Means of implementation

Financing and cost evaluation:

[ 94. The total financing required to implement this programme area is about US\$ 1,900 million per year, including international concessional financing of about US\$ 285 million. This includes US\$ 275 million for accelerated development, US\$ 7 million for global environmental issues and US\$ 3 million for strengthening the capacity of international institutions. ]

Scientific and technological means:

*See att.*  
95. National Governments, in cooperation with the appropriate United Nations agencies and international and regional research centres, should launch on-farm research in the development of non-chemical alternative pest management technologies.

Human resources development:

*See att.*  
96. National Governments, in cooperation with the appropriate United Nations agencies and international and regional research centres, should:

(a) Prepare and conduct training programmes on approaches and techniques for integrated pest management and control of pesticide use, to inform policy makers, researchers, NGOs and farmers;

(b) Train extension agents, and involve farmers and women's groups, in crop health and alternative non-chemical ways of controlling pests in agriculture.

(c) *Develop proper IPM comprising selection of variety and biological, physical and cultural control, as well as chemical control, taking into account specific regional conditions.*

Capacity-building:

<sup>See att.</sup>  
97. National Governments should strengthen national public administrations and regulatory bodies in the control of pesticides and the transfer of technology for integrated pest management.

J. SUSTAINABLE PLANT NUTRITION TO INCREASE FOOD PRODUCTION

Basis for action

98. ~~\*\* (PC/WG.I/CRP.12/Rev.1, para. 71)~~ Plant nutrient depletion is a serious problem resulting in loss of soil fertility, particularly in developing countries. To maintain soil productivity, FAO's sustainable plant nutrition programmes could be helpful. In sub-Saharan Africa, nutrient output from all sources currently exceeds inputs by a factor of three or four, the net loss being estimated at some 10 million metric tons per year. As a result, more marginal lands and fragile natural ecosystems are put under agricultural use, thus creating further land degradation and other environmental problems. > \*\*  
(PC/WG.I/CRP.12/Rev.1, para. 72) The integrated plant nutrition approach aims at ensuring a sustainable supply of plant nutrients to increase future yields without harming the environment and soil productivity. > \*\*

99. In many developing countries, population growth rates exceed 3 per cent a year, and national agricultural production has fallen behind food demand. In these countries the goal should be to increase agricultural production by at least 4 per cent a year, without destroying the soil fertility. This will require increasing agricultural production in high potential areas through efficiency in the use of inputs. Trained labour, energy supply, adapted tools and technologies, plant nutrients and soil enrichment will all be essential.

Objectives

100. No later than the year 2000, to develop and maintain in all countries the integrated plant nutrition approach, and to optimize availability of fertilizer and other plant nutrient sources.

101. No later than the year 2000, to establish and maintain institutional and human infrastructure to enhance effective decision-making on soil productivity.

102. To develop and make available national and international know-how to farmers, extension agents, planners and policy makers on environmentally sound new and existing technologies and soil fertility management strategies for application in promoting sustainable agriculture.

Activities

Management:

103. Governments at the appropriate level, and with the support of the relevant international and regional organizations, should:

(a) Formulate and apply strategies that will enhance soil fertility maintenance to meet sustainable agricultural production and adjust the relevant agricultural policy instruments accordingly;

(b) Integrate organic and inorganic sources of plant nutrients in a system to sustain soil fertility and determine mineral fertilizer needs;

(c) Determine plant nutrients requirements, supply strategies and optimize the use of both organic and inorganic sources, as appropriate, to increase farming efficiency and production;

(d) Develop and encourage processes for the recycling of organic and inorganic waste into the soil structure without harming the environment, plant growth and human health.

Data and information:

104. Governments, at the appropriate level and with the support of the relevant international and regional organizations, should:

(a) Assess "national accounts" for plant nutrients, including supplies (inputs) and losses (outputs), prepare balance sheets and projections by cropping systems;

(b) Review technical and economic potentials of plant nutrient sources, including national deposits, improved organic supplies, recycling, wastes, topsoil produced from discarded organic matter and biological nitrogen fixation.

International and regional cooperation and coordination:

105. The appropriate United Nations agencies such as FAO, the international agricultural research institutes, and NGOs should collaborate in carrying out information and publicity campaigns about the integrated plant nutrients approach, efficiency of soil productivity and their relationship to the environment.

Means of implementation

Financing and cost evaluation:

[ 106. The total financing required to implement this programme area is about US\$ 3,200 million per year, including international concessional financing of about US\$ 475 million. This includes US\$ 460 million for accelerated development, US\$ 10 million for global environmental issues and US\$ 5 million for strengthening the capacity of international institutions. ]



Scientific and technological means:

*See art.*  
107. ~~National Governments, in cooperation with the appropriate United Nations agencies and international and regional research centres, should:~~

(a) Develop site-specific technologies at bench-mark sites and farmers fields that fit prevailing socio-economic and ecological conditions through research that involves the full collaboration of local populations;

(b) Reinforce interdisciplinary international research and transfer of technology in cropping and farming systems research, improved in situ biomass production techniques, organic residue-management and agroforestry technologies.

Human resources development:

*See att.*  
108. ~~National Governments, in cooperation with the appropriate United Nations agencies and international and regional research centres, should:~~

(a) Train extension officers and researchers in plant nutrient management, cropping systems and farming systems, and in economic evaluation of plant nutrient impact;

(b) Train farmers and women's groups in plant nutrition management with special emphasis on top soil conservation and production.

Capacity-building:

*See att.*  
109. ~~National Governments should:~~

(a) Develop suitable institutional mechanisms for policy formulation to monitor and guide the implementation of integrated plant nutrition programmes through an interactive process involving farmers, research, extension services and other sectors of society;

(b) Strengthen advisory services and train staff, develop and test new technologies, provide incentives to farmers, and finance the costs of upgrading and maintaining the full productivity of soils in high potential areas. *See bottom of page*

K. RURAL ENERGY TRANSITION TO ENHANCE PRODUCTIVITY

Basis for action

110. ~~\*\*{PC/WG.I/CRP.12/Rev.1, para. 75}~~ Energy supplies in many countries are not commensurate with their development needs and are highly priced and unstable. In rural areas of the developing countries, the chief sources of energy are fuelwood, crop residues and manure, together with animal and human energy. More intensive energy inputs are required for increased productivity

(b) where appropriate, strengthen existing advisory services and train staff, develop and test new technologies and facilitate the adoption of practices to upgrade and maintain full productivity of the land. /...

of human labour and for income-generation. To this end, rural energy policies and technologies should promote a mix of cost-effective fossil and renewable energy sources that is itself sustainable and ensures sustainable agricultural development. Rural areas provide energy supplies in the form of wood. The full potential of agriculture and agroforestry as well as common property resources, as sources of renewable energy, is far from being realized. The attainment of sustainable rural development is intimately linked with energy demand and supply patterns.>\*\*7/

#### Objectives

111. No later than the year 2000, to initiate and encourage a process of environmentally sound energy transition in rural communities, from unsustainable energy sources to structured and diversified energy sources by making available alternative new and renewable sources of energy.

112. To increase the energy inputs available for rural household and agro-industrial needs through planning and appropriate technology transfer and development.

112bis. To implement self-reliant rural programmes favouring sustainable development of renewable energy sources and improved energy efficiency.

#### Activities

##### Management:

113. Governments at the appropriate level, with the support of the relevant international and regional organizations, should:

(a) Promote pilot plans and projects consisting of electrical, mechanical and thermal power (gasifiers, biomass, solar driers, wind-pumps and combustion systems) that are appropriate and likely to be adequately maintained;

(b) Initiate and promote on national rural energy programmes supported by technical training, banking and related infrastructure;

(c) Intensify research and the development, diversification and conservation of energy, taking into account the need for efficient use and environmentally sound technology.

##### Data and information:

114. Governments at the appropriate level, with the support of the relevant international and regional organizations should:

(a) Collect and disseminate data on rural energy supply and demand patterns related to energy needs for households, agriculture and agro-industry;

(b) Analyse sectoral energy and production data in order to identify rural energy requirements.

International and regional cooperation and coordination:

115. The appropriate United Nations agencies and regional organizations should, drawing on the experience and available information of NGOs in this field, exchange country and regional experience on rural energy planning methodologies in order to promote efficient planning and select cost-effective technologies.

Means of implementation

Financing and cost evaluation:

[116. The total financing required to implement this programme area is about US\$ 1,800 million per year, including international concessional financing of about US\$ 265 million. This includes US\$ 230 million for accelerated development, US\$ 30 million for global environmental issues and US\$ 5 million for strengthening the capacity of international institutions.]

Scientific and technological means:

*See att.*  
117. ~~National Governments, as well as the private sector,~~ should:

(a) Intensify public and private sector research in developing and industrialized countries on renewable sources of energy for agriculture;

(b) Undertake research and transfer of energy technologies in biomass and solar energy to agricultural production and post-harvest activities.

Human resources development:

*See att.*  
118. National Governments and rural organizations should enhance public awareness of rural energy problems stressing the economic and environmental advantages of renewable energy sources.

Capacity-building:

*See att.*  
119. ~~National Governments~~ should:

(a) Establish national institutional mechanisms for rural energy planning and management that would improve efficiency in agricultural productivity and reaching village and household level;

(b) Strengthen extension services and local organizations to implement plans and programmes for new and renewable sources of energy at village level.

L. see Corr for new programme area.

Notes

1/ Some of the issues in these programme areas are presented in section I, chapter I, of Agenda 21, "Combating poverty and meeting basic needs".

2/ Some of the issues in these programme areas are presented in Agenda 21, section IV, chapter on "Capacity-building in developing countries".

3/ Discussed in section I, chapter 8, of Agenda 21, "Integration of environment and development in decision-making" (programme area A).

4/ Presented in section I, chapter 2, of Agenda 21, "Planning and management of land resources".

5/ Presented in section II, chapter 10, of Agenda 21, "Water for sustainable food production and sustainable rural development" (programme area F).

6/ The activities of this programme are related to some of the activities of section II, chapter 7, of Agenda 21, "Biological diversity".

7/ This programme area is related to some of the activities in section II, chapter 1, of Agenda 21, "Protection of the atmosphere" (programme area A), "Promoting sustainable energy development".

8/ This proposed programme area will be addressed in section II, chapter 1, of Agenda 21, "Protection of the atmosphere".

-----

Form 675 G (5)  
PROCÉDE **Plasdex**® PROCESS  
MONTREAL - TORONTO

## CONSERVATION OF BIOLOGICAL DIVERSITY

### **SUMMARY**

Negotiations began with many delegations expressing concern that the Secretariat's document PC/100/Add.20 duplicated and prejudged the deliberations under way within the INC-Biodiversity. It was decided that negotiation would take place on the basis of a Swedish proposal along with text proposed by the EC. The Swedish proposal was the result of limited negotiations in the corridor prior to the beginning of formal negotiations. The major contentious issues were related to those that touched on areas yet still unresolved within the biodiversity convention negotiations.

This chapter is comprised of one programme area - Conservation of biological diversity - and complements many of the proposals currently part of the convention. Some phrases and paragraphs remain in square brackets. However, except for those within the means of implementation, these are related to the subjects under negotiations within the INC-Biodiversity. These bracketed phrases should be resolved following agreement within the convention negotiations.

The remaining bracketed areas are related to "fair and equitable" sharing, the concept of the "country of origin", technology transfer, and the concept of governments undertaking the proposed activities with the support, "where necessary" of indigenous people and their communities, NGOs and other groups, etc.

### **DOCUMENTATION**

A/CONF.151/PC/WG.I/L.44 Adopted Agenda 21 chapter: Conservation of Biological Diversity (replaces PC/100/Add.20).

### **CANADIAN OBJECTIVES**

1. Ensure that the development of this chapter of Agenda 21 is consistent with and supportive of the Canadian position at the INC sessions for the development of a Convention on Biodiversity.
2. Ensure that throughout the document, and

specially in the Basis for Action for each programme area, biodiversity is consistently recognized for its two fundamental values:  
a) ecological services that it offers for the maintenance of life on the planet; and  
b) resources that it can provide for human benefit if they are sustainably managed.

#### **PREPCOM DISCUSSION**

Many delegations expressed concern that the Secretariat's document PC/100/Add.20 prejudged the outcome of the INC-Biodiversity negotiations. A number of the objectives and activities duplicated proposals under consideration for inclusion within the Biodiversity Convention. To facilitate Agenda 21 negotiations, a representative group of interested countries including Canada with Sweden taking the lead met prior to WGI deliberations on the biological diversity chapter to examine the most effective way or proceeding.

This group decided to put forward a redrafted biological diversity chapter and to propose that it be used as the basis of negotiations rather than the Secretariat's document. Sweden was tasked with preparing the redraft.

When negotiations began, it was quickly decided that using the Secretariat's document as the basis of negotiations would lead to the Agenda 21 negotiations duplicating the negotiations under way within the INC-Biodiversity. The working group decided to use the Swedish proposal supplemented with various components of the proposal prepared by the European Community as the basis of negotiations.

Negotiations proceeded rather smoothly using these proposals. Major difficulties did arise, however, in those cases which broached upon concepts or language still under negotiations within the INC-Biodiversity. In most cases the contentious language/concept was presented in a noncontroversial manner or dropped on the grounds that it preempted negotiations. In a small number of cases, however, the contentious language/concept was retained in square brackets.

During the preliminary negotiations, the concept of conservation of biological diversity for environmental security was diluted by several delegations (primarily Malaysia). The evolving document began to place emphasis on conservation of biological diversity to allow for the sustainable use of biological and genetic resources. This imbalance was of concern to a number of delegations (e.g., CANZ) which then systematically reintroduced the conservation of biological diversity and an ecosystem

approach throughout the text during subsequent negotiating and contact group sessions.

Brazil introduced two concepts from the recent declaration made by the eight Amazon countries' presidents. These are reflected in the objective (g) dealing with traditional methods and knowledge and the participation of indigenous people and their communities in the derived economic and commercial benefits and activity 4(1) which deals with establishing national registration, regulation or management and control systems.

#### **OUTCOME AND ASSESSMENT**

The PrepCom IV decision was adopted as a consensus document. The document consists of one programme area which provides a solid basis for conservation of biological diversity. The decision includes pressing governments for the early entry into force of the Convention on Biological Diversity and the development of national strategies and the integration of these into national development strategies/plans. It also includes the carrying out of country studies, as appropriate and the production of regularly updated world reports based on national assessments.

The decision does contain some bracketed language in addition to that within the Means of Implementation section. These bracketed phrases are related to concepts under negotiation within the INC-Biodiversity process and, therefore, should be relatively easily resolved following the next session of the convention negotiations. The bracketed phrases are related to the "[fair and equitable] sharing of benefits", the "rights of countries of origin" of genetic resources, and the "transfer of and cooperation on technologies". In addition, the concept of carrying out the proposed activities with the support of indigenous people, NGOs and other groups, was modified by Malaysia who introduced the phrase "[where necessary]". This conditionality was unacceptable to a number of other delegations and therefore remains in square brackets.

In general, the PrepCom results for the Biodiversity chapter of Agenda 21 are a significant improvement over the Secretariat's draft. This is primarily because the resulting decision relates much more closely to the Convention which remains the driving force for global biodiversity conservation. It is unfortunate that the commitments are as watered down as they have become in the hectic pressure of negotiations. That is a reflection of political reality and the tight time frame. The challenge for Canada and other like-minded countries is to give substantive effect to the



proposed measures in a solid commitment to effective implementation.

The results are in line with Canada's objectives going into PrepCom. We wanted the Convention to be the leading force and Agenda 21 to be a relatively simple reflection of the thrust of the Convention. This was achieved. The results have more substance (albeit, heavily qualified) than we anticipated, but since they are compatible with the Convention, there will be no difficulty in implementation.

Conservation of Biological Diversity as a chapter of Agenda 21 requires little further action prior to UNCED. The remaining square bracketed text should be resolved based on the negotiations within the INC-Biodiversity process. It should not be necessary to bring the interdepartmental working group together to resolve these bracketed phrases as positions could be developed by the Canadian INC-Biodiversity negotiating team.

Report prepared by:

Roger Street  
Environment Canada  
(416) 739-4271

Further information:

John Herity  
Environment Canada  
997-2254



General Assembly

Distr.  
LIMITED

A/CONF.151/PC/WG.I/L.44  
30 March 1992

ORIGINAL: ENGLISH

---

PREPARATORY COMMITTEE FOR THE  
UNITED NATIONS CONFERENCE ON  
ENVIRONMENT AND DEVELOPMENT

Fourth session  
New York, 2 March-3 April 1992  
Working Group I  
Agenda item 4

CONSERVATION OF BIOLOGICAL DIVERSITY

Text submitted by the Chairman on the basis of negotiations  
held on conservation of biological diversity

(Section II, chapter 7, of Agenda 21)

BACKGROUND

The objectives and activities in this chapter of Agenda 21 are intended to improve the conservation of biological diversity and the sustainable use of biological resources, as well as to support the draft Convention on Biological Diversity. As negotiations are continuing on that instrument, these objectives and activities, where they relate directly to the draft Convention, are without prejudice to those negotiations.

## INTRODUCTION

1. Our planet's essential goods and services depend on the variety and variability of genes, species, populations and ecosystems. Biological resources feed and clothe us and provide housing, medicines and spiritual nourishment. The natural ecosystems of forests, savannahs, pastures and rangelands, deserts, tundras, rivers, lakes and seas contain most of the Earth's biodiversity. Farmers' fields and gardens are also of great importance as repositories, while gene banks, botanical gardens, zoos and other germplasm repositories make a small but significant contribution. The current decline in biodiversity is largely the result of human activity and represents a serious threat to human development.

## PROGRAMME AREA

### Conservation of biological diversity

#### Basis for action

2. Despite mounting efforts over the past 20 years, the loss of the world's biological diversity, mainly from habitat destruction, over-harvesting, pollution and the inappropriate introduction of foreign plants and animals, has continued. Biological resources constitute a capital asset with great potential for yielding sustainable benefits. Urgent and decisive action is needed to conserve and maintain genes, species and ecosystems, with a view to the sustainable management and use of biological resources. Capacities for the assessment, study and systematic observation and evaluation of biodiversity need to be reinforced at national and international levels. Effective national action and international cooperation is required for the in situ protection of ecosystems, for the ex situ conservation of biological and genetic resources and for the enhancement of ecosystem functions. The participation and support of local communities are elements essential to the success of such an approach. Recent advances in biotechnology have pointed up the likely potential for agriculture, health and welfare, and environmental purposes of the genetic material contained in plants, animals and micro-organisms. At the same time, it is particularly important in this context to stress that States have the sovereign right to exploit their own biological resources pursuant to their environmental policies, as well as the responsibility to conserve their biodiversity and use their biological resources sustainably, and to ensure that activities within their jurisdiction or control do not cause damage to the biological diversity of other States or of areas beyond the limits of national jurisdiction.

3. ~~Governments~~ <sup>OBJECTIVES</sup> at the appropriate levels, with the cooperation of the relevant United Nations bodies and [where necessary] regional intergovernmental and non-governmental organizations, the private sector and financial institutions, and taking into consideration social and economic factors, should:

(a) Press for the early entry into force of the Convention on Biological Diversity with the widest possible participation;

(b) Develop national strategies for the conservation of biological diversity and the sustainable use of biological resources;

(c) Integrate strategies for the conservation of biological diversity and the sustainable use of biological resources into national development strategies and/or plans;

(d) Take appropriate measures for the [fair and equitable] sharing of benefits derived from research and development and use, including by biotechnology, of biological and genetic resources between the sources of those resources and those who use them;

*page in brackets*

(e) Carry out country studies, as appropriate, on the conservation of biological diversity and the sustainable use of biological resources, including analyses of relevant costs and benefits and with particular reference to socio-economic aspects;

(f) Produce regularly updated world reports on biodiversity based upon national assessments;

(g) Recognize and foster the traditional methods and the knowledge of indigenous people and their communities, emphasizing the particular role of women, relevant to the conservation of biological diversity and the sustainable use of biological resources, and ensure the opportunity for the participation of those groups in the economic and commercial benefits derived from the use of such traditional methods and knowledge;

(h) Implement mechanisms for the improvement, generation, development and sustainable use of biotechnology and its safe transfer, particularly to developing countries, taking account of the potential contribution of biotechnology to the conservation of biological diversity and the sustainable use of biological resources;

(i) Promote broader international and regional cooperation in furthering scientific and economic understanding of the importance of biodiversity and its functions in ecosystems;

(j) [Develop measures and arrangements to implement the rights of countries of origin - areas of origin and/or natural diversification - of genetic resources, particularly developing countries, to benefit from the biotechnological development and the commercial utilization of products derived from such resources.]

Activities

(a) Management-related activities

4. Governments at the appropriate levels, consistent with national policies and practices, with the cooperation of the relevant United Nations bodies and, as appropriate, intergovernmental organizations and, where necessary, with the support of indigenous people and their communities, non-governmental organizations and other groups, including the business and scientific communities, and consistent with the requirements of international law, should, as appropriate:

(a) Develop new or strengthen existing strategies, plans or programmes of action for the conservation of biological diversity and the sustainable use of biological resources, taking account of education and training needs;

(b) Integrate strategies for the conservation of biological diversity and the sustainable use of biological and genetic resources into relevant sectoral or cross-sectoral plans, programmes and policies, with particular reference to the special importance of terrestrial and aquatic biological and genetic resources for food and agriculture; 1/

(c) Undertake country studies or other methods to identify components of biological diversity important for its conservation and for the sustainable use of biological resources, ascribe values to biological and genetic resources, identify processes and activities with significant impacts upon biological diversity, evaluate the potential economic implications of the conservation of biological diversity and the sustainable use of biological and genetic resources, and suggest priority action;

(d) Take effective economic, social and other appropriate incentive measures to encourage the conservation of biological diversity and the sustainable use of biological resources, including the promotion of sustainable production systems, such as traditional methods of agriculture, agroforestry, forestry, range and wildlife management, which use, maintain or increase biodiversity;

(e) Subject to national legislation, take action to respect, record, protect and promote the wider application of the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles for the conservation of biological diversity and the sustainable use of biological resources, with a view to the [fair and equitable] sharing of the benefits arising, and promote mechanisms to involve those communities, including women, in the conservation and management of ecosystems;

(f) Undertake long-term research into the importance of biodiversity for the functioning of ecosystems and the role of ecosystems in producing goods, environmental services and other values supporting sustainable development, with particular reference to the biology and reproductive capacities of key terrestrial and aquatic species, including native, cultivated and cultured

species; new observation and inventory techniques; ecological conditions necessary for biodiversity conservation and continued evolution; and social behaviour and nutrition habits dependent on natural ecosystems, where women play key roles. The work should be undertaken with the widest possible participation, especially of indigenous and local communities, including women;

(g) Take action where necessary for the conservation of biological diversity through the in situ conservation of ecosystems and natural habitats, as well as primitive cultivars and their wild relatives, and the maintenance and recovery of viable populations of species in their natural surroundings, and implement ex situ measures, preferably in the source country. In situ measures should include the reinforcement of terrestrial, marine and aquatic protected area systems to embrace, inter alia, vulnerable freshwater and other wetlands, and coastal ecosystems, such as estuaries, coral reefs and mangroves;

(h) Promote the rehabilitation and restoration of damaged ecosystems and the recovery of threatened and endangered species;

(i) Develop policies to encourage the conservation of biodiversity and the sustainable use of biological and genetic resources on private lands;

(j) Promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas;

(k) Introduce appropriate environmental impact assessment procedures for proposed projects likely to have significant impacts upon biological diversity, providing for suitable information to be made widely available and for public participation, where appropriate; furthermore, encourage the assessment of the impacts of relevant policies and programmes on biological diversity;

(l) <sup>inventories</sup> Promote, where appropriate, the establishment and strengthening of ~~[national registration]~~, regulation or management and control systems at the appropriate level related to biological resources;

(m) Take measures to encourage a greater understanding and appreciation of the value of biological diversity, as manifested both in its component parts and in the ecosystem services provided.

(b) Data and information

5. Governments at the appropriate levels, consistent with national policies and practices, with the cooperation of the relevant United Nations bodies and, as appropriate, intergovernmental organizations and [, where necessary,] with the support of indigenous people and their communities, non-governmental organizations and other groups, including the business and scientific communities, and consistent with the requirements of international law, should, as appropriate:

(a) Regularly collate, evaluate and exchange information on the conservation of biological diversity and the sustainable use of biological resources;

(b) Develop methodologies with a view to undertaking systematic sampling and evaluation on a national basis of the components of biological diversity identified by means of country studies;

(c) Initiate or further develop methodologies and begin or continue work on surveys at the appropriate level on the status of ecosystems and establish baseline information on biological and genetic resources, including those in terrestrial, aquatic, coastal and marine ecosystems, as well as inventories undertaken with the participation of local and indigenous communities;

(d) Identify and evaluate the potential economic and social implications and benefits of the conservation and sustainable use of terrestrial and aquatic species in each country, building upon the results of country studies;

(e) Undertake the updating, analysis and interpretation of data derived from the identification, sampling and evaluation activities described above;

(f) Collect, assess and make available relevant and reliable information in a timely manner and in a form suitable for decision-making at all levels, with the full support and participation of local and indigenous communities.

(c) International and regional cooperation and coordination

6. Governments at the appropriate levels, with the cooperation of the relevant United Nations bodies and, as appropriate, intergovernmental organizations, and [, where necessary,] with the support of indigenous people and their communities, non-governmental organizations and other groups, including the business and scientific communities, and consistent with the requirements of international law, should, as appropriate:

(a) Consider the establishment or strengthening of national or international capabilities and networks for the exchange of data and information of relevance to the conservation of biological diversity and the sustainable use of biological and genetic resources;

(b) Undertake the production of regularly updated world reports on biodiversity based upon national assessments in all countries;

(c) Promote technical and scientific cooperation in the field of conservation of biological diversity and the sustainable use of biological and genetic resources. Special attention should be given to the development and strengthening of national capabilities by means of human resource development and institution-building, including the transfer of technology and/or development of research and management facilities, such as herbaria, museums, gene banks, and laboratories, related to the conservation of biodiversity;

(d) *(awaiting technology transfer documentation)* [Provide and/or facilitate the transfer of and cooperation on technologies relevant to the conservation of biological diversity and the sustainable use of biological resources or that make use of genetic resources and cause no significant damage to the environment, recognizing that technology includes biotechnology;] 1/

(e) Promote cooperation between the parties to relevant international conventions and action plans with the aim of strengthening and coordinating efforts to conserve biological diversity and the sustainable use of biological resources;

(f) Strengthen support for international and regional instruments, programmes and action plans concerned with the conservation of biological diversity and the sustainable use of biological resources;

(g) Promote improved international coordination of measures for the effective conservation and management of endangered/non-pest migratory species, including appropriate levels of support for the establishment and management of protected areas in transboundary locations;

(h) Promote national efforts with respect to surveys, data collection, sampling and evaluation, and the maintenance of gene banks.

#### Means of implementation

##### (a) Financing and cost-evaluation

7. [The estimated average annual cost of the programme area in this chapter during the period 1993-2000 is expected to be about \$5 billion. The estimated average annual cost of strengthening international organizations to assist countries to conduct programmes is expected to be about \$30 million. Pending the outcome of the work of the Intergovernmental Negotiating Committee for a Convention on Biological Diversity, these estimated costs have been arbitrarily divided equally between national Governments - supported as appropriate by non-governmental organizations, local communities and others - and the international community.]

##### (b) Scientific and technological means

8. Specific aspects to be addressed include the need to develop:

(a) Efficient methodologies for baseline surveys and inventories, as well as for the systematic sampling and evaluation of biological resources;

(b) Methods and technologies for the conservation of biological diversity and the sustainable use of biological resources;

(c) Improved and diversified methods for ex situ conservation with a view to the long-term conservation of genetic resources of importance for research and development.



(c) Human resource development

9. There is a need, where appropriate, to:

(a) Increase the number and/or make more efficient use of trained personnel in scientific and technological fields relevant to the conservation of biological diversity and the sustainable use of biological resources;

(b) Maintain or establish programmes for scientific and technical education and training of managers and professionals, especially in developing countries, on measures for the identification, conservation of biological diversity and the sustainable use of biological resources;

(c) Promote and encourage understanding of the importance of the measures required for the conservation of biological diversity and the sustainable use of biological resources at all policy-making and decision-making levels in Governments, business enterprises and lending institutions, and promote and encourage the inclusion of these topics in educational programmes.

(d) Capacity-building

10. There is a need, where appropriate, to:

(a) Strengthen existing institutions and/or establish new ones responsible for the conservation of biological diversity and to consider the development of mechanisms such as national biodiversity institutes or centres;

(b) Continue to build capacity for the conservation of biological diversity and the sustainable use of biological resources in all relevant sectors;

(c) Build capacity, especially within Governments, business enterprises and bilateral and multilateral development agencies, for integrating biodiversity concerns, potential benefits, and opportunity cost calculations into project design, implementation and evaluation processes, as well as for evaluating the impact on biological diversity of proposed development projects;

(d) Enhance the capacity of governmental and private institutions, at the appropriate level, responsible for protected area planning and management to undertake intersectoral coordination and planning with other governmental institutions, non-governmental organizations and, where appropriate, indigenous communities.

Notes

1/ Appropriate cross-references to other parts of Agenda 21 will be inserted later.

-----

Form 875 G (S)  
PROCÉDE **Plasbox** PROCESS  
MONTREAL · TORONTO

## ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY

### **SUMMARY**

Negotiations on this chapter of Agenda 21 were based on the Secretariat's prepared text PC/100/Add.27. The major contentious issues during negotiations were related to the degree to which safety should be the emphasis of the chapter and whether there should be principles or guidelines governing biotechnology use; including liability and compensation for damages caused through the application of biotechnology; the over specificity of some of the activities; and the specific reference to fertility-related drugs and technologies.

The adopted text contains some phrases and subparagraphs in square brackets related to the contentious issues mentioned above. The issue of whether the use of biotechnology should be governed by internationally agreed principles or whether there is a need for a legally-binding instrument/code of contact will require further negotiations and possibly ministerial intervention if an effective resolution can not be found. The references to liability and compensation remains in square brackets and will also require further negotiations. Both these issues will require some refocusing if we are to achieve resolution at UNCED as position on both sides are well entrenched.

The over-specificity of some of the activities was dealt with through negotiations at PrepCom IV and the fertility-related subparagraph should resolve itself prior to Rio.

### **DOCUMENTATION**

A/CONF.151/PC/WG.I/L.45 Adopted Agenda 21 chapter: Environmentally Sound Management of Biotechnology (replaces PC/100/Add.27).

Corrections submitted by the Chairman on the basis of consultations held on 2 April 1992.

### **CANADIAN OBJECTIVES**

- 1) To promote substantive discussion of the human and environmental health and safety issues related to biotechnology and recognize the extensive international work ongoing on biotechnology, particularly at the OECD;
- 2) To promote biotechnology research related to the environment in areas where biotechnology can be used to: a) reduce stresses on the environment; and b)

contribute to environmental mitigation;

- 3) To minimize and resit linkages between biotechnology and biodiversity beyond biotechnologies directly related to conservation of biological diversity;
- 4) To ensure that the section of Agenda 21 dealing with biodiversity and biotechnology remain separate and that reference to biotechnology in the biodiversity chapter appears only in the context of biotechnologies and other technologies which can be used for the purpose of conservation and sustainable use of biodiversity; and
- 5) to replace references to "environmentally safe" (technologies/applications) with the concept "environmentally sound and safe for humans". The concept of environmentally safe is extremely subjective and can be interpreted to mean zero risk. The words "environmentally sound" are considered more useful.

#### PREPCOM DISCUSSION

The main issues which arose during negotiation on the Biotechnology chapter were related to: the safety aspects of biotechnology, particularly whether or not there should be legally-binding instrument/code of conduct; the concepts of liability and compensation for damages caused by the applications of biotechnology; and the use of biotechnology in the area of human reproduction. A number of delegations felt that the chapter was too optimistic in its view of the potential for biotechnology. Some delegation also felt that a number of the proposed activity were too specific for Agenda 21 in that they referred to only one technique or process.

On the safety aspects of biotechnology, the USA, with some support from Japan and a few other delegations, could not agree to including text calling for the development of a legally-binding instrument/code of conduct governing biotechnology applications as they felt that this approach was unnecessary and would restrict the use of biotechnology. In addition, the USA expressed its concern about the over-emphasis within the Secretariat's document on the dangers associated with the use of biotechnology indicating that the information on which the Secretariat's document was developed is outdated (i.e. evaluation undertaken in 1986).

The biotechnology decision document (WG.I/L.45) reflects these concerns with all references to legal instruments/code of conduct and codification remaining in square brackets.

The question of the outdated information was addressed

through introduction a footnote which received considerable attention throughout the various negotiating sessions. The USA proposed including within this footnote reference to a workshop of experts held in London in 1991 which provided a more up to date assessment of the risk associated with biotechnology applications. However, some countries, primarily Colombia, wanted reference to only the existing UNCED documents and not other documents/workshops in which only a limited number of countries had participated. The footnote was retained but is in square brackets.

The references to liability and compensation for damages resulting from application of biotechnology remains in square brackets. USA and Japan, like Canada, had difficulties understanding how one would pursue identifying liability and compensation. A number of delegations from developing countries supported retaining the concepts of liability and compensation.

The deliberations on the use of biotechnology in human fertility-related medicine was essentially a spill over from similar discussions within the Population chapter. The Holy See with the support of Argentina wanted specific reference to fertility-related mechanisms and agents deleted from the chapter. The USA, EC and Canada insisted on retention of this idea since it dealt with its safe and effective use. Canada, along with the USA developed compromise language that stressed the need for related drugs and technologies to be used in a safe and effective manner. The Holy See insisted that there be specific reference to ethical consideration with the use of these drugs and technologies. This specific reference was of particular concern to Japan and it was suggested that reference to ethical consideration be placed in the chapeau thereby recognizing the need for ethical considerations to be part of all uses of biotechnology for human health purposes. The Holy See insisted that specific reference to ethical consideration had to be associated with this subject and therefore this reference remains in square brackets.

The detailed listing of a number of specific biotechnological applications was a particular concern within the programme area on human health. The concern was that the proposed activities were too restrictive and were not appropriate for a plan of action that was to take biotechnology into the 21st century. These concerns were dealt with through negotiations by combining a number of the applications into a more general proposal that allowed for flexibility and the application of new developments.

The phrase "where necessary" was introduced by Malaysia into the chapeau of a number of the activities' paragraphs of

this chapter to allow for the possibility that governments would only seek the support of international and regional organizations, the private sector, NGOs, etc. in undertaking the listed activities when the governments deemed it necessary. A number of developed countries, primarily the EC, USA and CANZ felt that including this phrase was unnecessary and would send the wrong signal.

#### OUTCOME AND ASSESSMENT

PrepCom IV was able to negotiate and adopt a consensus document with relatively few square brackets remaining to be negotiated. These square-bracketed phrase and subparagraphs are:

- 1) The development of internationally agreed principles to be applied on safety in biotechnology or whether there is need for a corresponding legal instrument/code of conduct. Positions are well entrenched on both sides of the debate and it appears that to break this deadlock and still get something constructive from UNCED on this aspect of biotechnology, will require refocussing the issue within Agenda 21. It may be useful to suggest that a meeting of legal and technical experts be held to examine the need for, feasibility and scope of, a legal instrument/code of conduct to be applied to safety on biotechnology.
- 2) Liability and compensation for social and environmental damage resulting from applications of biotechnology. Once again, refocusing of this proposal may result in resolution of this issue at UNCED. The major concerns are related to how one could assign liability, how to determine whether compensation was required and how much, and how to identify who would "pay" and who would "receive" the compensation. One solution would be to suggest that Agenda 21 include a process to examine the feasibility of the concepts of liability and compensation in the context of damage from applications of biotechnology and to develop options as to how these concepts could be applied.
- 3) Drugs and technologies relating to reproductive health are safe and effective [and take account of ethical considerations]. The brackets are related to whether or not there should be specific reference to taking account of ethical considerations or whether the general reference in the chapeau of the paragraph will suffice. Canada should insist that the phrase in brackets be deleted as it is covered in the paragraph's chapeau and seek to retain within this programme area

the concept of safe and effective drugs and technologies in reproductive health.

- 4) Seeking "where necessary" the support of international and regional organizations, the private sector, NGOs, etc. Canada should seek deletion of this phrase possibly replacing it with "as appropriate". This would provide the required flexibility as not all the listed entities would have the competence for the all the activities.

The resulting PrepCom IV decision document is consistent with the general thrust of Canadian objectives. The chapter includes objectives and activities directed at the use of existing biotechnology in human and environmental health as well as the need for continued research in these areas. It also contains balanced references to the need for safety in the applications of biotechnology. In addition, linkages between biotechnology and biological diversity have been kept to the minimum and limited to the role of biotechnology in the conservation of biological diversity and sustainable use of biological resources.

Resolution of the remaining square bracketed text will take place at UNCED. In the time leading up to UNCED, Canada should seek to develop options for resolving the issues reflected by the phrases/subprogrammes contained in square brackets. This should involve initially interdepartmental consultations to develop options, followed by a "testing of the waters" with our CANZ partners and the USA.

Report prepared by:

Roger Street  
Environment Canada  
(416) 739-4271

Further information:

Louise MacArthur  
External Affairs EAITC  
996-4921



General Assembly

Distr.  
LIMITED

A/CONF.151/PC/WG.I/L.45  
30 March 1992

ORIGINAL: ENGLISH

---

PREPARATORY COMMITTEE FOR THE UNITED  
NATIONS CONFERENCE ON ENVIRONMENT  
AND DEVELOPMENT

Fourth session  
New York, 2 March-3 April 1992  
Working Group I  
Agenda item 5

ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY

Text submitted by the Chairman on the basis of negotiations  
held on document A/CONF.151/PC/100/Add.27

(Section II, chapter 8, of Agenda 21)

INTRODUCTION

1. Biotechnology is the integration of the new techniques emerging from modern biotechnology with the well-established approaches of traditional biotechnology. Biotechnology, an emerging knowledge-intensive field, is a set of enabling techniques for bringing about specific man-made changes in deoxyribonucleic acid (DNA), or genetic material, in plants, animals and microbial systems leading to useful products and technologies. By itself biotechnology cannot resolve all the fundamental problems of environment and development, so expectation needs to be tempered by realism. Nevertheless, it promises to make a significant contribution in enabling the development of, for example, better health care, enhanced food security through sustainable agricultural practices, improved supplies of potable water, more efficient industrial development processes for transforming raw materials, support for sustainable methods of afforestation and reforestation, and detoxification of hazardous wastes. Biotechnology also offers new opportunities for global partnerships, especially between the countries rich in biological resources (which include genetic resources) but lacking the expertise and investments needed to apply such resources through biotechnology and the countries that have developed the technological expertise to transform biological resources so that they serve the needs of sustainable development. Biotechnology can assist in the conservation of those resources through, for example, ex situ



techniques. The programme areas set out below seek to foster internationally agreed principles to be applied to ensure the environmentally sound management of biotechnology, to engender public trust and confidence, to promote the development of sustainable applications of biotechnology and to establish appropriate enabling mechanisms, especially within developing countries, through the following activities:

- (a) Increasing availability of food, feed and renewable raw materials;
- (b) Improving human health;
- (c) Enhancing protection of the environment;
- (d) Enhancing safety and developing international mechanisms for cooperation;
- (e) Establishing enabling mechanisms for the environmentally sound application of biotechnology.

#### PROGRAMME AREAS

##### A. Increasing the availability of food, feed and renewable raw materials

##### Basis for action

2. To meet the growing consumption needs of the global population, the challenge is not only to increase food supply, but also to improve food distribution significantly while simultaneously developing more sustainable agricultural systems. Much of this increased productivity will need to take place in developing countries. It will require the successful and environmentally safe application of biotechnology in agriculture, in the environment and in human health care. Most of the investment in modern biotechnology has been in the industrialized world. Significant new investments and human resource development will be required in biotechnology, especially in the developing world.

##### Objectives

3. The following objectives are proposed, keeping in mind the need to promote the use of appropriate safety measures based on programme area D:

- (a) To increase to the <sup>optimum.</sup> ~~maximum~~ possible extent the yield of major crops, livestock, and aquaculture species, by using the combined resources of modern biotechnology and conventional plant/animal/micro-organism improvement, including the more diverse use of genetic material resources, both hybrid and original. Forest product yields should similarly be increased, to ensure the sustainable use of forests;

(b) To reduce the need for volume increases of food, feed and raw materials by improving the nutritional value (composition) of the source crops, animals and micro-organisms, and to reduce post-harvest losses of plant and animal products;

(c) To increase the use of integrated pest, disease and crop management techniques to eliminate overdependence on agrochemicals, thereby encouraging environmentally sustainable agricultural practices;

(d) To evaluate the agricultural potential of marginal lands in comparison with other potential uses, for example, in forestry and conservation, and in those areas where agricultural use is desirable, to develop systems allowing for substantial and sustainable productivity increases;

(e) To expand the applications of biotechnology in forestry, both for increasing yields and more efficient utilization of forest products and for improving afforestation and reforestation techniques. Efforts should be concentrated on species and products that are grown in and are of value for developing and other countries;

(f) To increase the efficiency of nitrogen fixation and mineral absorption by the symbiosis of higher plants with micro-organisms;

(g) To improve capabilities in basic and applied sciences and in the management of complex interdisciplinary research projects.

#### Activities

##### (a) Management related

4. Governments at the appropriate level, with the assistance of international and regional organizations and [,where necessary,] with the support of non-governmental organizations, the private sector, academic and scientific institutions ~~and the pharmaceutical industry,~~ should improve both plant and animal breeding and micro-organisms through the use of traditional and modern biotechnologies, to enhance sustainable agricultural output to achieve food security, particularly in developing countries, with due regard to the prior identification of desired characteristics before modification, taking into account the needs of farmers, the socio-economic, cultural and environmental impacts of modifications and the need to promote sustainable social and economic development and paying particular attention to how the use of biotechnology will impact on the maintenance of environmental integrity.

5. More specifically, these entities should:

(a) Improve productivity, nutritional quality and shelf-life of food and animal feed products, with efforts including work on pre- and post-harvest losses;

- (b) Further develop resistance to diseases and pests;
- (c) Develop plant cultivars tolerant and/or resistant to stress from factors such as pests and diseases and from abiotic causes;
- (d) Promote the use of underutilized crops of possible future importance for human nutrition and industrial supply of raw materials;
- (e) Increase the efficiency of symbiotic processes that assist sustainable agricultural production;
- (f) Facilitate the conservation and safe exchange of plant, animal and microbial germ plasm by applying risk assessment and management procedures, including improved diagnostic techniques for detection of pests and diseases by better methods of rapid propagation;
- (g) Develop improved diagnostic techniques and vaccines for the prevention and spread of diseases and for rapid assessment of toxins or infectious organisms in products for human use or livestock feed;
- (h) Identify more productive strains of fast-growing trees, especially for fuel wood, and develop rapid propagation methods to aid their wider dissemination and use;
- (i) Evaluate the use of various biotechnology techniques to improve the yields of fish, algal and other aquatic species;
- (j) Promote sustainable agricultural output by strengthening and broadening the capacity and scope of existing research centres to achieve the necessary critical mass through encouragement and monitoring of research into the development of biological products and processes of productive and environmental value that are economically and socially feasible, while taking safety considerations into account;
- (k) Promote the integration of appropriate and traditional biotechnologies for the purposes of cultivating genetically modified plants, rearing healthy animals and protecting forest genetic resources;
- (l) Develop processes to increase the availability of materials derived from biotechnology for use in food, feed, and renewable raw materials production.

(b) Data and information

6. The following activities should be undertaken:

- (a) Consideration of comparative assessments of the potential of the different technologies for food production, together with a system for assessing the possible effects of biotechnologies on international trade in agricultural products;

(b) Examination of the implications of the withdrawal of subsidies and the possible use of other economic instruments to reflect the environmental costs associated with the unsustainable use of agrochemicals;

(c) Maintenance and development of data banks of information on environmental and health impacts of organisms to facilitate risk assessment;

(d) Acceleration of technology acquisition, transfer and adaptation by developing countries to support national activities that promote food security.

(c) International and regional cooperation and coordination

7. Governments at the appropriate level, with the support of relevant international and regional organizations, should promote the following activities in conformity with international agreements or arrangements on biological diversity as appropriate:

(a) Cooperation on issues related to conservation of, access to, and exchange of germ plasm; rights associated with intellectual property and informal innovations including farmers' and breeders' rights; access to the benefits of biotechnology; and bio-safety;

(b) Promotion of collaborative research programmes, especially in developing countries, to support activities outlined in this programme area, with particular reference to cooperation with local and indigenous communities in the conservation of biological diversity and sustainable use of biological resources, as well as the fostering of traditional methods and knowledge of such groups in connection with these activities;

(c) Acceleration of technology acquisition, transfer and adaptation by developing countries to support national activities that promote food security, through the development of systems for substantial and sustainable productivity increases that do not damage or endanger local ecosystems;

(d) Develop appropriate safety procedures based on programme area D, taking account of ethical considerations.

Means of implementation

(a) Financing and cost evaluation

8. [The estimated average annual cost of this programme area for the period 1993-2000 could be upwards of \$5 billion, of which it is estimated that about \$50 million would come from international financing sources. Most of the amount for this programme area is included in the cost evaluation of other chapters. Both the total amount and the proportion of global investments currently being made by developing countries in biotechnology research and development need to be increased significantly over the period 1993-2000 and beyond to enable them to take advantage of the increasing opportunities offered by biotechnology for accelerated development.]

(b) Scientific and technological means

9. See paragraphs 6 and 7 above.

(c) Human resource development

10. Training of competent professionals in the basic and applied sciences at all levels (including scientific personnel, technical staff and extension workers) is one of the most essential components of any programme of this kind. Creating awareness of the benefits and risks of biotechnology is essential. Given the importance of good management of research resources for the successful completion of large multidisciplinary projects, continuing programmes of formal training for scientists should include managerial training. Training programmes should also be developed, within the context of specific projects, to meet regional or national needs for comprehensively trained personnel capable of using advanced technology to reduce the "brain drain" from developing to developed countries. Emphasis should be given to encouraging collaboration between and training of scientists, extension workers and users to produce integrated systems. Additionally, special consideration should be given to the execution of programmes for training and exchange of knowledge on traditional biotechnologies and for training on safety procedures.

(d) Capacity-building

11. [Institutional upgrading or other appropriate measures will be needed to build up technical, managerial, planning and administrative capacities at the national level to support the activities in this programme area. Such measures should be backed up by international, scientific, technical and financial assistance adequate to facilitate technical cooperation and raise the capacities of the developing countries. Programme area E contains further details.]

B. Improving human health

Basis for action

12. The improvement of human health is one of the most important objectives of development. The deterioration of environmental quality, notably air, water and soil pollution due to toxic chemicals, hazardous wastes, radiation and other sources, is a matter of growing concern. This degradation of the environment resulting from inadequate or inappropriate development has a direct negative effect on human health. Malnutrition, poverty, poor human settlements, lack of good-quality potable water and inadequate sanitation facilities add to the problems of communicable and non-communicable diseases. As a consequence, the health and well-being of people are exposed to increasing pressures.

Objectives

13. The main objective of this programme area is to contribute, through the environmentally sound application of biotechnology to an overall health programme, to:

- (a) Reinforcing or inaugurating (as a matter of urgency) programmes to help combat major communicable diseases;
- (b) Promoting good general health among people of all ages;
- (c) Developing and improving programmes to assist in specific treatment of and protection from major non-communicable diseases;
- (d) Developing and strengthening appropriate safety procedures based on programme area D, taking account of ethical considerations;
- (e) Creating enhancing capabilities for carrying out basic and applied research and for managing interdisciplinary research.

Activities

(a) Management-related activities

14. Governments at the appropriate level, with the assistance of international and regional organizations, academic and scientific institutions, and the pharmaceutical industry, should <sup>taking into account appropriate safety and ethical considerations</sup>

- (a) Develop national and international programmes for identifying and targeting those populations of the world most in need of improvement in general health and protection from diseases;
- (b) Develop criteria for evaluating the effectiveness and the benefits and risks of the proposed activities;
- (c) Establish and enforce screening, systematic sampling and evaluation procedures for drugs and medical technologies with a view to barring the use of those which are unsafe ~~drugs~~ for the purposes of experimentation; [ensure that new fertility-related mechanisms and agents are safe and effective and that they do not threaten human health;] <sup>Ensure that drugs and technologies relating to reproductive health are safe and effective [and take account of ethical considerations]</sup>
- (d) Improve, systematically sample and evaluate drinking-water quality <sup>ethical considerations</sup> by introducing appropriate specific measures, including diagnosis of water-borne pathogens and pollutants;
- (e) Develop and make widely available new and improved vaccines against major communicable diseases that are efficient and safe and offer protection with a minimum number of doses, including the vaccines needed to combat common diseases of children;

*intensifying efforts directed at*

(f) Develop biodegradable delivery systems for vaccines that eliminate the need for present multiple-dose schedules, facilitate better coverage of the population and reduce the costs of immunization;

(g) Intensify efforts to develop a multicomponent vaccine conferring protection against common diseases of children;

(h) Develop effective biological control agents against disease-transmitting vectors, such as mosquitoes and resistant variants, taking account of environmental protection considerations;

(i) Develop new diagnostics based on, for example, monoclonal antibodies and DNA probes to enable early detection of communicable, non-communicable and genetic disorders;

(j) Develop and facilitate the therapeutic use of recombinant hormones, produced using recombinant DNA technology;

(k) Develop new drugs for resistant organisms and for metabolic disorders;

(l) Develop improved delivery systems for the administration of therapeutics and prophylaxis;

(m) Develop safe and effective methods for the treatment of genetic disorders;

(n) Develop the improvement and more effective utilization of medicinal plants and other related sources;

(o) Develop processes to increase the availability of materials derived from biotechnology, for use in improving human health.

(b) Data and information

15. The following activities should be undertaken:

(a) Research to assess the comparative social, environmental and financial costs and benefits of different technologies for basic and reproductive health care within a framework of universal safety and ethical considerations;

(b) Development of public education programmes directed at decision makers and the general public to encourage awareness and understanding of the relative benefits and risks of modern biotechnology, according to ethical and cultural considerations.

→ In using the tools provided by modern biotechnology, develop, inter alia, improved diagnostics, new drugs, and improved treatments and delivery systems  
/...

delete  
or  
sup  
with  
x

(c) International and regional cooperation and coordination

16. Governments at the appropriate levels, with the support of relevant international and regional organizations, should:

(a) Develop and strengthen appropriate safety procedures based on programme area D, taking account of ethical considerations;

(b) Support the development of national programmes, particularly in developing countries, for improvements in general health, especially protection from major communicable diseases, common diseases of children and disease-transmitting factors.

Means of implementation

17. [To achieve the above goals, the activities need to be implemented with urgency if progress towards the control of major communicable diseases is to be achieved by the beginning of the next century. The spread of some diseases to all regions of the world calls for global measures. For more localized diseases, regional or national policies will be more appropriate. The achievement of goals calls for:

(a) Continuous international commitment;

(b) National priorities with a defined time-frame;

(c) Scientific and financial input at global and national levels.]

(a) Financing and cost evaluation

18. [The estimated average annual cost of this programme area could be upwards of \$14 billion, of which it is estimated that about \$130 million would come from international financing sources.]

(b) Scientific and technological means

19. Well-coordinated multidisciplinary efforts involving cooperation between scientists, financial institutions and industries will be required. At the global level, this may mean collaboration between research institutions in different countries, with funding at the intergovernmental level, possibly supported by similar collaboration at the national level. Research and development support will also need to be strengthened, together with the mechanisms for providing the transfer of relevant technology.

(c) Human resource development

20. Training and technology transfer is needed at the global level, with regions and countries having access to, and participation in exchange of, information and expertise, particularly indigenous or traditional knowledge and related biotechnology. It is essential to create/enhance endogenous



capabilities in developing countries to actively participate in the processes of production in biotechnology. The training of personnel could be undertaken at three levels:

- (a) That of scientists required for basic and product-oriented research;
- (b) That of health personnel (to be trained in the safe use of new products) and of science managers required for complex intermultidisciplinary research;
- (c) That of tertiary-level technical workers required for delivery in the field.
- (d) Capacity-building

21. See programme area E.

### C. Enhancing protection of the environment

#### Basis for action

22. Environmental protection is an integral component of sustainable development. The environment is threatened in all its biotic and abiotic components: animals, plants, microbes and ecosystems comprising biological diversity; water, oil and air, which form the physical components of habitats and ecosystems; and all the interactions between the components of biodiversity and their sustaining habitats and ecosystems. With the continued increase in the use of chemicals, energy and non-renewable resources by an expanding global population, associated environmental problems will also increase. Despite increasing efforts to prevent waste accumulation and to promote recycling, the amount of environmental damage caused by overconsumption, the quantities of waste generated and the degree of unsustainable land use appear likely to continue growing.

23. The need for a diverse genetic pool of plant, animal and microbial germ plasm for sustainable development is well established. Biotechnology is one of many tools that can play an important role in supporting the rehabilitation of degraded ecosystems and landscapes. This may be done through the development of new techniques for reforestation and afforestation, germ plasm conservation, and cultivation of new plant varieties. Biotechnology can also contribute to the study of the effects exerted on the remaining organisms and on other organisms by organisms introduced into ecosystems.

#### Objectives

24. The aim of this programme is to prevent, halt and reverse environmental degradation through the appropriate use of biotechnology in conjunction with other technologies, while supporting safety procedures as an integral

component of the programme. Specific objectives include the inauguration as soon as possible of specific programmes with specific targets to:

(a) Adopt production processes making optimal use of natural resources, by recycling biomass, recovering energy and minimizing waste generation;

(b) Promote the use of biotechnologies, with emphasis on bio-remediation of land and water, waste treatment, soil conservation, reforestation, afforestation and land rehabilitation;

(c) Apply biotechnologies and their products to protect environmental integrity with a view to long-term ecological security.

#### Activities

##### (a) Management related

25. Governments at the appropriate level and, where necessary, with the assistance of international and regional organizations, the private sector, non-governmental organizations and academic and scientific institutions should:

(a) Develop environmentally sound alternatives and improvements for environmentally damaging production processes;

(b) Develop applications to minimize the requirement for unsustainable synthetic chemical input and to maximize the use of environmentally appropriate products, including natural products (see programme area A);

(c) Develop processes to reduce waste generation, treat waste before disposal and make use of biodegradable materials;

(d) Develop processes to recover energy and provide renewable energy sources, animal feed and raw materials from recycling organic waste and biomass;

(e) Develop processes to remove pollutants from the environment, including accidental oil spills, where conventional techniques are not available or are expensive, inefficient, or inadequate;

(f) Develop processes to increase the availability of planting materials, particularly indigenous varieties, for use in afforestation and reforestation and to improve sustainable yields from forests;

(g) Develop applications to increase the availability of stress-tolerant planting material for land rehabilitation and soil conservation;

(h) Promote the use of integrated pest management based on the judicious use of bio-control agents;

(i) Promote the appropriate use of bio-fertilizers within national fertilizer programmes;

(j) Promote the use of biotechnologies relevant to the conservation and scientific study of biological diversity and the sustainable use of biological resources;

(k) Develop easily applicable technologies for the treatment of sewage and organic waste;

(l) Develop new technologies for rapid screening of organisms for useful biological properties;

(m) Promote new biotechnologies for tapping mineral resources in an environmentally sustainable manner.

(b) Data and information

26. Steps should be taken to increase access both to existing information about biotechnology and to facilities based on global databases.

(c) International and regional cooperation and coordination

27. Governments at the appropriate level, with the support of relevant international and regional organizations, should:

(a) Strengthen research, training and development capabilities, particularly in developing countries, to support the activities outlined in this programme area;

(b) Develop mechanisms for scaling up and disseminating environmentally sound biotechnologies of high environmental importance, especially in the short term, even though those biotechnologies may have limited commercial potential;

(c) Enhance cooperation, including transfer of biotechnology, between participating countries for capacity-building;

(d) Develop appropriate safety procedures based on programme area D, taking account of ethical considerations.

Means of implementation

(a) Financing and cost evaluation

28. [The estimated average annual cost of this programme area could be upwards of \$1 billion, of which it is estimated that about \$10 million would come from international financing sources.]

32. There is a need for further development of internationally agreed principles on risk assessment and management of all aspects of biotechnology, which should build upon those developed at the national level. Only when adequate and transparent safety and border-control procedures are in place, will the community at large be able to derive maximum benefit from, and be in a much better position to accept the potential benefits and risks of, biotechnology. Several fundamental principles could underlie many of these safety procedures, including: [primary consideration of the organism, building on the principle of familiarity applied in familiarity applied in a flexible framework and, as appropriate, step-by-step and case-by-case]; complementary consideration of risk assessment and risk management; and classification into contained use or release to the environment

(b) Scientific and technological means

29. See paragraphs 25-27 above.

(c) Human resource development

30. The activities for this programme area will increase the demand for trained personnel. Support for existing training programmes needs to be increased, for example, at the university and technical institute level, as well as the exchange of trained personnel between countries and regions. New and additional training programmes also need to be developed, for example, for technical and support personnel. There is also an urgent need to improve the level of understanding of biological principles and their policy implications among decision makers in Governments, and financial and other institutions.

Capacity-building

31. Relevant institutions will need to have the responsibility for undertaking, and the capacity (political, financial and ~~manpower~~) to undertake, the above-mentioned activities and to be dynamic in response to new biotechnological developments (see programme area E). workforce.

D. Enhancing safety and developing international mechanisms for cooperation

Basis for action

32. ~~There is a need for internationally agreed principles and technical guidelines, which should build upon those already developed at the national levels. Only when adequate and transparent safety and border-control procedures are in place, will the community at large be able to derive maximum benefit from, and be in a much better position to accept the potential benefits and risks of, biotechnology. Several fundamental principles could underlie many of these safety procedures, including: primary consideration of the organism, including the genetically modified organism; appropriate application of the step-by-step and case-by-case concept; complementary consideration of risk assessment and risk management; classification into contained use or release to the environment; and a framework for safety in biotechnology.~~ [Primary bio safety considerations with respect to genetically modified organisms should build on the principle of familiarity with those organisms and apply a flexible framework of bio-safety guidance. Bio-safety considerations should be based on the identification of hazards; scientific assessment of risk; the level of containment or, for releases, the local environment; and alternatives for risk management.] 1

Objectives

33. The aim of this programme area is to ensure safety in biotechnology development, application, exchange and transfer through an international

see  
Chairman's  
corrections  
at.

agreement on principles to be applied on risk assessment and management, <sup>1/</sup> with particular reference to health and environmental considerations, including the widest possible public participation and taking account of ethical considerations.

Activities

34. The proposed activities for this programme area call for close international cooperation. They should build upon planned or existing activities to accelerate the environmentally sound application of biotechnology, especially in developing countries. <sup>1/</sup>

(a) Management-related activities

35. Governments at the appropriate levels and [, where necessary], with the support of relevant international and regional organizations, the private sector, non-governmental organizations, academic and scientific institutions, should:

(a) Make the existing safety procedures widely available by collecting the existing information and adapting it to the specific needs of different countries and regions;

(b) Further develop, as necessary, the existing safety procedures to promote scientific development and categorization in the areas of risk assessment and risk management (information requirements; databases; procedures for assessing risks and conditions of release; establishment of safety conditions; monitoring and inspections; taking account of ongoing national, regional and international initiatives, avoiding duplication wherever possible);

(c) Compile, update and develop compatible safety procedures into a framework of internationally agreed principles to be applied on safety in biotechnology [as a basis for the development of an international [legal instrument] [~~code of conduct~~]; taking into account decision 1/17 adopted by the Preparatory Committee at its first session], and promote information exchange as a basis for further development, drawing on the work already undertaken by international or other expert bodies;

agreement  
legal  
instrument  
code of conduct "

<sup>1/</sup> See research paper No. 55, entitled "Environmentally sound management of biotechnology: safety in biotechnology - assessment and management of risks" (February 1992), prepared by the United Nations Conference on Environment and Development secretariat to take account of comments made at the third session of the Preparatory Committee for the United Nations Conference on Environment and Development on part II of document A/CONF.151/PC/67, which incorporate the findings of the ad hoc workshop of Senior-Level Experts on Assessing and Managing Biotechnology Risks held in London in June 1991.

(d) Undertake training programmes at national and regional levels on the application of the proposed technical guidelines;

(e) Assist in exchanging information about the procedures required for safe handling and risk management and about the conditions of release of the products of biotechnology, and cooperate in providing immediate assistance in cases of emergencies that may arise in conjunction with the use of biotechnology products. 2/

(b) Data and information

36. See paragraphs 34 and 37.

(c) International and regional cooperation and coordination

37. Governments at the appropriate level, with the support of the relevant international and regional organizations, should raise awareness of the relative benefits and risks of biotechnology.

38. See paragraph 34. Further activities should include the following:

(a) Organizing one or more regional meetings between countries to identify further practical steps to facilitate international cooperation in bio-safety;

(b) Establishing an international network incorporating national, regional and global contact points;

(c) Providing direct assistance upon request through the international network, using information networks, databases and information procedures;

(d) [Preparing internationally agreed guidelines on safety in biotechnology releases, including risk assessment and risk management, liability and compensation.]

Means of implementation

(a) Financing and cost evaluation

39. [The estimated average annual cost of this programme area for the period 1993-2000 could be about \$2 million, all of which would come from international sources.]

(b) Scientific and technological means

40. See paragraph 34.

---

2/ Appropriate cross-references to other parts of Agenda 21 will be inserted later.

(c) Human resource development

41. See paragraph 34.

(d) Capacity-building

42. [Adequate international technical and financial assistance should be provided and technical cooperation to developing countries facilitated in order to build up technical, managerial, planning and administrative capacities at the national level to support the activities in this programme area. See also programme area E.]

E. Establishing enabling mechanisms for the development and the environmentally sound application of biotechnology

Basis for action

43. The accelerated development and application of biotechnologies, particularly in developing countries, will require a major effort to build up institutional capacities at the national and regional levels. In developing countries, enabling factors such as training capacity, know-how, research and development facilities and funds, industrial building capacity, capital (including venture capital) protection of intellectual property rights, and expertise in areas including marketing research, technology assessment, socio-economic assessment and safety assessment are frequently inadequate. Efforts will therefore need to be made to build up capacities in these and other areas and to match such efforts with appropriate levels of financial support. There is therefore a need to strengthen the endogenous capacities of developing countries by means of new international initiatives to support research in order to speed up the development and application of both new and conventional biotechnologies to serve the needs of sustainable development at local, national and regional levels. National mechanisms to allow for informed comment by the public with regard to biotechnology research and application should be part of the process.

44. Some activities at the national, regional and global levels already address the issues outlined in programme areas A, B and C. Several others are related to programme area D, particularly with respect to the international codification of safety guidelines in biotechnology, and to the providing of advice to individual countries on the development of national guidelines and systems for the implementation of those guidelines. These activities are generally uncoordinated, however, involving many different organizations, priorities, constituencies, time-scales, funding sources and resource constraints. There is a need for a much more cohesive and coordinated approach to harness available resources in the most effective manner. [Research in biotechnology and the applications of its findings could have significant positive and negative socio-economic cultural impacts and should therefore should be carefully considered in the earliest phases of the development of biotechnology.]



### Objectives

45. The objectives are to:

(a) Promote the development and application of biotechnologies, with special emphasis on developing countries, by:

- (i) Enhancing existing efforts at national, regional and global levels;
- (ii) [Mobilizing additional financial resources and instituting innovative financing mechanisms, as necessary for selected priorities, to address the specific needs of different regions or socio-economic conditions]; <sup>3/</sup>
- (iii) Providing the necessary support for biotechnology, particularly research and product development, at the national, regional and international levels;
- (iv) Raising public awareness regarding the relative beneficial aspects of and risks related to biotechnology, to contribute to sustainable development;
- (v) Helping to create a favourable climate for investments, industrial capacity-building and distribution/marketing;
- (vi) Encouraging the exchange of scientists among all countries and discouraging the "brain drain";
- (vii) Recognizing and protecting the traditional methods and knowledge of indigenous and local communities and ensuring their participation in the economic and commercial benefits arising from developments in biotechnology;

(b) Identify ways and means of enhancing current efforts, building wherever possible on existing enabling mechanisms, particularly regional, to determine the precise nature of the needs for additional initiatives, particularly in respect of developing countries, and develop appropriate response strategies, including proposals for any new international mechanisms;

(c) Establish or adapt appropriate mechanisms for safety appraisal and risk assessment at local, regional and international levels, as appropriate;

(d) [Consider extending legislation to include liability and compensation for social and environmental damage resulting from applications of biotechnology.];

---

<sup>3/</sup> It has been proposed that this objective should be transferred to the Means of implementation section.

(e) [Encourage the consideration of appropriate cultural, social, ethical, and humane factors when undertaking the transfer or exchange of technologies.]

Activities

(a) Management-related activities

46. Governments at the appropriate level, [where necessary] with the support of international and regional organizations, the private sector, non-governmental organizations and academic and scientific institutions should:

(a) Develop policies and mobilize additional resources to facilitate greater access to the new biotechnologies, particularly by and among developing countries;

(b) Implement programmes to create greater awareness of the potential and relative benefits and risks of the environmentally sound application of biotechnology among the public and key decision makers;

(c) Undertake an urgent review of existing enabling mechanisms, programmes and activities at national, regional and global levels to identify strengths, weaknesses and gaps, and to assess the priority needs of developing countries;

(d) Define and implement strategies to overcome constraints identified in the areas of food, feed and renewable raw materials; human health; and environmental protection, building upon existing strengths;

(e) Undertake an urgent follow-up and critical review to identify ways and means of strengthening endogenous capacities within and among developing countries for the environmentally sound application of biotechnology, including, as a first step, ways to improve existing mechanisms, particularly at the regional level, and, as a subsequent step, the consideration of possible new international mechanisms, such as regional biotechnology centres;

(f) Develop strategic plans for overcoming targeted constraints by means of appropriate research, product development and marketing;

(g) Establish additional quality-assurance standards for biotechnology applications and products where necessary.

(b) Data and information

47. The following activities should be undertaken: facilitation of access to existing information dissemination systems, especially among developing countries; improvement of such access where appropriate; and consideration of the development of a directory of information.

(c) International and regional cooperation and coordination

48. Governments at the appropriate level, with the assistance of international and regional organizations, should develop appropriate new initiatives to identify priority areas for research based on specific problems and facilitate access to new biotechnologies, particularly by and among developing countries, among relevant undertakings within those countries, in order to strengthen endogenous capacities and to support the building of research and institutional capacity in those countries.

Means of implementation

(a) Financing and cost evaluation

49. [The estimated average annual cost of this programme area for the period 1993-2000 could be about \$5 million, all of which would come from international financing sources. This does not include the costs of any innovative mechanisms arising from the implementation of this programme area.]

(b) Scientific and technological means

50. Workshops, symposia, seminars and other exchanges among the scientific community at regional and global levels, on specific priority themes, will need to be organized, making full use of the existing scientific and technological manpower in each country for bringing about such exchanges.

(c) Human resource development

51. Personnel development needs will need to be identified and additional training programmes developed at the national, regional and global levels, especially in developing countries. These should be supported by increased training at all levels, graduate, postgraduate and post-doctoral, as well as by the training of technicians and support staff, with particular reference to the generation of trained manpower in consultant services, design, engineering and marketing research. Training programmes for lecturers training scientists and technologists in advanced research institutions in different countries throughout the world will also need to be developed, and systems giving appropriate rewards, incentives and recognition to scientists and technologists will need to be instituted (see para. 50). Conditions of service will also need to be improved at the national level in developing countries to encourage and nurture trained manpower with a view to retaining that manpower locally. Society should be informed of the social and cultural impact of the development and application of biotechnology.

(d) Capacity-building

52. Biotechnology research and development is undertaken both under highly sophisticated conditions and at the practical level in many countries. Efforts will be needed to ensure that the necessary infrastructure facilities for research, extension and technology activities are available on a

decentralized basis. Global and regional collaboration for basic and applied research and development will also need to be further enhanced and every effort should be made to ensure that existing national and regional facilities are fully utilized. Such institutions already exist in some countries and it should be possible to make use of them for training purposes and joint research projects. Strengthening of universities, technical schools and local research institutions for the development of biotechnologies and extension services for their application will need to be developed, especially in developing countries.

-----

2 April 1992

A/CONF.151/PC/WG1/L45

Corrections submitted by the Chairman on the basis of consultations held on 2 April 1992

✓ Paragraph 3(a): In the first sentence, replace "maximum" by "optimum"

✓ Paragraph 4: Delete "and the pharmaceutical industry,:"

✓ Paragraph 14: After "should", add ",taking into account appropriate safety considerations:"

Paragraph 14(c): First sentence, after "unsafe", delete "drugs."  
✓ Second sentence, delete brackets and replace text as follows:  
"Ensure that drugs and technologies relating to reproductive health are safe and effective [and take account of ethical considerations]."

✓ Paragraph 14(e):. After "including", insert "intensifying efforts directed at"

✓ Paragraph 14(g): Delete

✓ Paragraph 14(h): Re-number as 14(g)

✓ Paragraph 14 (i),(j),(k),(l),(m): Delete reference numbers and text and insert "Using the tools provided by modern biotechnology, develop, inter alia, improved diagnostics, new drugs, and improved treatments and delivery systems". Renumber as 14 (h)

✓ Paragraph 14(n): Re-number as 14(i)

✓ Paragraph 14(o): Re-number as 14(j)

✓ Paragraph 31: Replace "manpower" with "workforce"

✓ Paragraph 32: Delete brackets around the paragraph. Delete the first sentence and replace with "There is a need for further development of internationally agreed principles on risk assessment and management of all aspects of biotechnology, which should build upon those developed at the national level. Delete the bracket before "Several" in the third sentence. Delete the third sentence after "including" to the end and the bracket after "biotechnology". Replace as follows: "[primary consideration of the organism, building on the principle of familiarity applied in

/...

familiarity applied in a flexible framework and, as appropriate, step-by-step and case-by-case]; complementary consideration of risk assessment and risk management, and classification into contained use or release to the environment". Delete the remainder of the paragraph, including the double brackets at the end.

✓ Paragraph 34(c): After "development of an international", delete "[legal instrument][code of conduct]" and replace by "agreement [legal instrument/code of conduct]"

✓ Paragraph 44: in the second sentence, insert brackets before "particularly" and after "biotechnology".

Form 675 G (5)  
PROCEDE **Plasdex**® PROCESS  
MONTREAL - TORONTO

## OCEANS

### **SUMMARY**

The Oceans chapter of Agenda 21 is one of the most complex and negotiated texts of the UNCED preparatory process. Unlike many other chapters, it began to take shape relatively early, with intense negotiations commencing at PrepCom III and continuing right up to the last day of PrepCom IV. Although very much a "negotiated text," the Oceans chapter drew on the intelligent and energetic efforts of the Working Party (a group of experts assembled by the UNCED Secretariat), various UN agencies (including UNEP, IMO, UNESCO, and the recently-disbanded UN Office of Ocean Affairs and Law of the Sea), and UNCED's own talented staff (notably Alicia Barcenas).

Canada's objectives were largely achieved. The delegation actively participated in formal and informal negotiations shaping all seven sections of the chapter. Some sections are going to UNCED with square brackets: a) those pertaining to means of implementation (financial resources and technology) -- as with all chapters of Agenda 21 -- which will be addressed once there is agreement on these key cross-sectoral issues; and b) those pertaining to an issue of fundamental Canadian interest -- the paragraphs in the high seas and exclusive economic zones (EEZs) sections dealing with straddling stocks. Also bracketed at New Zealand's request is language pertaining to highly migratory species, and, at the European Community's request, language on access to surplus stocks.

### **DOCUMENTATION**

A/CONF.151/PC/113

A/CONF.151/PC/WG.II/L.16, Rev.1

A/CONF.151/PC/WG.II/L.25, Rev.1, & attached amendments)  
(replaces PC/100/Add.21)

### **CANADIAN OBJECTIVES**

1. Increase support for Canada's high seas fisheries initiative, as contained in the Santiago Paper, and ensure that the Oceans chapter incorporates as much as possible the Paper's principles and measures.
2. Incorporate as much as possible into the Oceans chapter the results of the December, 1991, Nairobi meeting of experts on the degradation of the marine environment from land-based sources of pollution and activities in the coastal areas and to ensure the continuation of a



process to develop a global strategy or guidelines.

3. Ensure an institutional framework within the UN system for regular consideration of oceans issues.
4. Promote an holistic approach to coastal zone management (CZM), without compromising national sovereignty over marine living resources.
5. Promote the better integration of data and information systems designed to monitor the marine environment.
6. Ensure the reflection of certain Canadian values in the Oceans text, such as the role of women and indigenous people in managing marine living resources and participating in decisions regarding the development of coastal areas.

#### PREPCOM DISCUSSION

The Oceans chapter was one the most complex sections of Agenda 21, of direct interest to some 100 States. The Secretariat's draft chapter (A/CONF.151/PC/100/Add.21) was based on detailed negotiations which had taken place at PrepCom III, further elaborated by the Working Party on oceans and the UNCED Secretariat's own efforts at research and synthesis (with assistance from various UN organizations). One of the last issues to be resolved was to develop consensus language (both in the introduction and throughout the chapter) recalling the relevant provisions of the UN Convention on the Law of the Sea; the delegate of Venezuela did so successfully, thus enabling non-signatories, like Turkey, to adopt the Oceans chapter. The following is a summary of main developments for each of the sections:

#### A. Integrated management and sustainable development of coastal and marine areas, including exclusive economic zones (EEZs):

Although delegations generally accepted the requirement for coastal zone management (CZM), the subject matter lent itself to some misunderstandings. For example, several developing countries, in particular the Latin Americans, emphasized the sovereign rights of States to determine CZM planning, including protection of the marine ecosystem and its resources. Some delegations wondered what the difference was between CZM and minimizing or eliminating marine pollution, an issue dealt with in the succeeding section. The Nordics took such an holistic view of CZM that, at times, it appeared as if river sources, located far

from coastal areas, could be subject to CZM regulations.

In general, though, delegations agreed to some basic principles about CZM, such as the need for coordinating mechanisms (thus uniting various sectors and interests involved in coastal development and planning) which would include active participation by concerned individuals, groups, and organizations; the application of preventive and precautionary approaches to planning; prior environmental assessment, systematic observation and follow-up of major infrastructure projects; better data and information acquisition and exchange (including the use of environmental indicators); resource accounting; and capacity-building, including human resources development.

The Netherlands proposed that countries prepare national guidelines for CZM and exchange their experiences at a "first global conference" to be held before 1994. Sweden emphasized that, in terms of potential international cooperation, the focus of CZM should be on the development of regional, rather than global, guidelines.

Canada and others stressed that CZM represented a general approach and did not imply management of EEZ fisheries per se. Mexico laid down a marker, which affected language not only in the Oceans chapter as a whole, but in other discussions of Agenda 21, namely, that it could not accept a reference to "monitor" (translated as "supervisor" in Spanish, a term which struck them as unnecessarily intrusive); this term was thus replaced by "systematic observation." Malaysia also reiterated an oft-repeated point that the implementation of activities by developing countries had to be commensurate with their individual financial and technological capacities and their development priorities. This issue was subsequently included (in brackets) in the introduction of the Oceans chapter.

#### B. Marine environmental protection

This section was divided into two parts: land-based and sea-based activities which damage the marine environment.

With respect to the first part, Canada, supported by the Nordic countries and the EC, proposed that Agenda 21 incorporate the results of the December, 1991 meeting (hosted by UNEP) of "Government designated experts to formulate a draft strategy for the reduction of the degradation of the marine environment from land-based sources of pollution and activities in coastal areas" (A/CONF.151/PC/113).

This proposal was not entirely acceptable to delegations participating in the contact group negotiations. Mexico (supported by several Latin American countries) reiterated its well-known position that, though joining consensus in Nairobi, it remained fundamentally dissatisfied with the results of the meeting, which, in their opinion, imposed on developing countries strong commitments and regulatory action without requisite financial and technological support. As well, they had difficulty accepting the principle of negotiating global guidelines for land-based sources of marine pollution, as such problems were largely domestic in nature and involved sovereign decisions about economic development. Sweden also opposed a global strategy, arguing that the emphasis should be on existing regional seas programmes (Sweden's well-known support of UNEP also explained their strong position on this point). India added that it had not been present at the meeting and thus could not endorse its results. Indeed, this latter point became one of principle, with several delegations stating that they could not accept the results of experts meetings, even if the experts had been "government-designated."

Despite the initial opposition to the Nairobi meeting, Canada and others succeeded in incorporating most of its key principles, for example: precautionary and preventive approaches for reducing environmental damage as much as practicable; prior assessment procedures; integration of the protection of the marine environment into environmental, economic and social development policies; and economic incentives, including internalization of environment costs and the "polluter pays" principle. Among the main activities called for were: the need to build on existing guidelines (Montreal) and regional agreements; to enhance information and data acquisition and exchange; to provide adequate funding and technology to protect the marine environment; and to promote human resources development and capacity-building.

There were some disagreements about emphasis on types of land-based pollution, with Malaysia highlighting sewage; the Latin Americans, industrial effluents (this was partly to emphasize that developed countries had the greater responsibility in reducing land-based sources of marine pollution); and island developing States and Sweden, physical degradation. Malaysia called for more international cooperation to better manage sewage waste (a position they have advocated since the first PrepCom), but was less enthusiastic about supporting minimum efficient guidelines and water quality criteria. Delegations did, however, support a Canadian proposal to promote "primary treatment of municipal sewage discharged into rivers,

estuaries and the sea, or other solutions appropriate to specific sites." Iceland proposed language calling for the elimination of organohalogen compounds, which was reflected in the text; as with other paragraphs referring to hazardous chemicals, it was qualified to refer to dangerous levels of accumulation. Finally, the text stated that countries should promote alternative ways to dispose of waste, requiring broad changes in resource and waste production and management practices.

One of the most contentious issues concerned ongoing efforts at the international level to deal with the degradation of the marine environment from land-based activities. Developing countries (and some developed countries) were lukewarm to developing global guidelines or strategies for what they perceived as site-specific problems. Sweden advocated a regional approach, arguing that global guidelines would be a waste of scarce resources. Canada insisted that UNCED had to endorse in principle the convening of a meeting by 1994 on this issue, drawing on the results of the Halifax meeting on land-based sources of marine pollution and the Nairobi meeting. Delegations, such as India and Colombia, were in principle opposed to recognizing formally these experts meetings, though they accepted that an international conference could be useful in identifying common problems and their solutions. The final compromise was an invitation to UNEP to "convene, as soon as practicable, an intergovernmental meeting on the protection of the marine environment from land-based activities."

On sea-based activities, the text supported the International Maritime Organization's (IMO) efforts to assess and respond to any additional measures for shipping, offshore oil and gas activities, dumping and port activities. It was agreed that MARPOL provisions and other IMO conventions should be used as the main bases for activities related to shipping and that there is a need for additional regulatory measures to address discharges, emissions, and safety for offshore oil and gas platforms. The section on ports calls for facilitating the establishment of port reception facilities for the collection of oil and chemical residues and garbage from ships, especially in MARPOL special areas; and for smaller-scale facilities in marina and fishing harbours.

Recalling a recent episode of a sunken Soviet nuclear submarine within range of its territorial waters, Iceland proposed several detailed requirements concerning nuclear-powered vessels and transportation of irradiated nuclear fuel. These proposals enjoyed support only from fellow Nordic countries and were eventually withdrawn. The London Dumping Convention and IMO/International Atomic Energy

Agency Codes were recognized as appropriate fora and instruments for dealing with various proposals to stop disposal at sea of hazardous and radioactive wastes.

Paragraphs addressing oil spills were amended, at the request of Kuwait, to refer also to chemical spills, thus implying that oil spills not be isolated as a major problem.

The USA and Malaysia managed to resolve a thorny disagreement over legal terminology concerning traffic in heavily congested international straits. The compromise text calls for assessment of shipping in such straits, in particular with a view to ensuring compliance with respect to illegal discharges from ships (citing Part III of the UNCLOS as a frame of reference).

#### C. Sustainable use and conservation of high seas living resources

This was a priority issue for Canada, and the delegation spent considerable time and effort shaping this section of the text. Early in the PrepCom, Canada convened a meeting of current and potential co-sponsors of the "Santiago Paper" (A/CONF.151/PC/WG.II/L.16), which contained principles and measures on coastal States rights with respect to high seas fisheries. Canada's particular interest focused on straddling stocks; other members of the Santiago group, such as New Zealand, were concerned more about highly migratory species. At the Canadian meeting, delegations discussed strategies for dealing with the high seas fisheries issue at PrepCom IV, including agreement in principle to try to incorporate the Santiago paper into the Oceans chapter and to continue to raise the profile of this issue through the PrepCom and at UNCED itself; many delegations stressed the importance of ensuring the key issues in the Santiago paper go forward to Rio, even if they had to be resolved at a political level. Canada was prepared later in the PrepCom to broach the subject of a post-UNCED intergovernmental conference on high seas fishing at this PrepCom, with a view to getting the EC and other distant water fishing States to address this issue.

During Week 2, John Crosbie, the Minister of Fisheries and Oceans, visited New York to speak to key delegations with interests in fisheries issues about EC (in particular, Portuguese and Spanish) overfishing outside the Canadian EEZ; he also briefed UNCED Secretary-General Maurice Strong and the media. This visit, along with subsequent visits and briefings by representatives of Fisheries and Oceans (in particular, Victor Rabinovitch, who did the effective Geographic Information System presentation), the

Newfoundland fisheries industry, Canadian NGOs (led by Evelyne Meltzer of the Canadian Participatory Committee for UNCED), Environment Minister Jean Charest, and Premier Clyde Wells of Newfoundland, successfully raised awareness among PrepCom participants about the "ecological disaster" taking place on the Grand Banks and the need for international rules, based on the UNCLOS, to promote the sustainable conservation and management of high seas fisheries.

Negotiations on this section lasted until the last day of the PrepCom. Following Mr. Crosbie's visit, the lead proponents of the Santiago Paper (Canada, New Zealand, Argentina, Iceland, and Chile) successfully obtained additional co-sponsors; the Santiago Group grew from the 16 co-sponsors of PrepCom III, to 40, with many other countries supporting the text. Many of the principles and measures were eventually incorporated into the high seas section (effective action consistent with international law to deter reflagging of vessels by their nationals as a means of avoiding compliance with applicable conservation and management rules for fishing activities on the high seas), but on the thorny issue of straddling stocks and highly migratory species, the EC and Japan stated they could not accept the Santiago proposals, which they considered to be "creeping jurisdiction," (Japan has also expressed reservation in this regard, but in the end generally accepted the principles).

Instead, the EC insisted on simple references to the relevant UNCLOS sections, which they wished to see in both the high seas and EEZs sections of the Oceans chapter of Agenda 21. As well, the EC requested that a paragraph be included in the EEZ section, calling for States to give attention to issues related to the "conservation and management of straddling stocks, migratory species, and access to surplus." The EC representative continued to argue that countries should not disturb the "delicate balance" of the UNCLOS provisions; Canada and others countered that, in the real world, the "balance" was being broken by distant water fishing fleets which were in breach of UNCLOS rules on cooperation and conservation.

Shortly before the PrepCom was to end, the USA Chair of the contact group proposed (at Canadian instigation) that delegations agree to further discuss straddling stocks and highly migratory species at a UN conference, to be convened as soon as possible after UNCED. Japan (with which Minister Crosbie had raised the issue during his visit) and Korea reacted positively to the proposal. The EC first strenuously objected, but when they realized they were isolated, said they would seek new instructions. The Santiago Group obviously agreed with the proposal but

insisted the conference should address only the high seas. In bilateral discussions with the EC Environment Director-General Brinkhorst, Minister Charest and Premier Wells had strongly suggested he seriously take up this matter with his colleague responsible for fisheries. It was indeed referred to the Council of Ministers, but they were unable to make a decision in time for the end of the PrepCom.

In any event, it became increasingly apparent that this issue would have to be resolved at the political level in Rio de Janeiro; hence, the outstanding paragraphs remain in square brackets. Although the Santiago Group made considerable headway, the current lack of resolution on the most difficult issues was largely predictable. The EC, however, is clearly isolated and has undertaken to seriously discuss the package of proposals, including the conference. In the final plenary, PrepCom Chair Tommy Koh, himself an UNCLOS veteran, stated that the "balance" in UNCLOS was between the freedom to fish on the high seas and the obligation to cooperate with other States, otherwise stocks would be depleted world-wide. He called on the EC to make a constructive contribution to resolving this issue in Rio; his comment was received with hearty applause.

Marine Mammals: Another key issue concerned marine mammals, parallel language of which is contained in the high seas and EEZs sections of the Oceans chapter. At PrepCom III, New Zealand had proposed, inter alia, a global moratorium on whaling (with exemptions for indigenous people) and the inclusion of small cetaceans in the mandate of the International Whaling Commission (IWC). This clashed with the interests of such whaling States as Denmark, Iceland, Japan, and Norway, and thus required lengthy negotiations among the above parties (as well as the UK and USA, which generally supported New Zealand) to resolve the matter. Canada did not participate in these discussions, but joined other countries in supporting the compromise results.

As much as possible in the text, Denmark, Iceland, Japan, and Norway sought to amend references to "fisheries" to "marine living resources," thus suggesting that marine mammals could be utilized, conserved and managed, like fisheries. Both sections refer to the need to "maintain or restore populations of marine living resources to maximum sustainable yields as qualified by relevant environmental and economic factors, taking into account relationships among species." They also refer to the need for States to "protect and restore endangered marine mammals."

Earlier in the PrepCom, Canadian native representatives had made a presentation to the Canadian delegation, stating that Canada should not join the IWC, as this would run contrary

to their interests. Despite the exemption for indigenous people in the New Zealand proposal, it still seemed to imply that there is "something wrong with hunting marine mammals"; in the opinion of the Canadian native representatives, this would also have a negative effect on their interests.

The compromise language crafted by Working Group II Chair Bukar Shaib essentially recalls language based on international agreements. For example, States are called upon to recognize the responsibility of the IWC for the conservation and management of whale stocks as per its 1946 Convention; the studies by the IWC's Scientific Committee of large whales in particular, and other cetaceans; and the work of other organizations (the Inter-American Tropical Tuna Commission; the Agreement on Small Cetaceans in the Baltic and North Seas). As well, "States could cooperate for the conservation, management, and study of cetaceans." Although disappointed with the result, the New Zealanders acknowledged this was the best they could hope for; they do not intend to re-open this issue at UNCED.

The remainder of the high seas text highlights the need to avoid practices which destroy habitats and deplete stocks. As with the previous sections, it calls for enhanced efforts to promote information and data acquisition and exchange, scientific research, human resources development, and capacity-building. The text also calls on States with an interest in high seas fisheries which are not yet members of relevant regional fisheries organizations to join those bodies. Spain initially protested this proposal, but following consultations with the EC Commission representative and fellow EC Member States, withdrew its objections; Korea tried to have the paragraph deleted, or at least weakened, in the final plenary, but was literally shouted down to withdraw its suggestions -- which it did.

#### D. Sustainable use of marine living resources under national jurisdiction

As explained above, some paragraphs in this section are linked to paragraphs in the high seas section. This was at the insistence of the EC, which has long advocated that UNCLOS rules on fisheries in the high seas and EEZs are complementary and cannot be considered in isolation from each other (i.e. it is just as important for a coastal State to manage its straddling stocks as it is for the distant water fishing State on the adjacent high seas). As well, the EC continued to assert its interest in discussing access to surplus stocks in EEZs in exchange for discussing straddling stocks and highly migratory species.



The language on marine mammals was the same in this section as in the high seas section.

Canada actively sought to ensure this section included references to the participation of women and indigenous people in managing and developing coastal fisheries, as well as the need for education and training geared to them and other major groups. Traditional knowledge and the rights of indigenous people to subsistence and the utilization and protection of habitats were recognized in the text. As well, coastal States were called upon to "ensure that, in the negotiation and implementation of international agreements on the development or conservation of marine living resources, the interests of local communities and indigenous people are taken into account, in particular their right to subsistence."

The text encourages States to promote aquaculture, mariculture, and other techniques to enhance coastal fisheries; to avoid destructive and wasteful fishing practices; to strengthen management, surveillance, and enforcement capabilities; and to enhance quality control of fish products. It also calls on countries to identify and protect ecosystems with high biodiversity and productivity, as well as other critical habitat areas. At the suggestion of Australia, the text suggests coastal States should explore the scope to expand recreational and tourist activities based on marine living resources.

As with the other sections above, the text highlights the need for strengthened information and data acquisition and exchange, human resources development, and capacity-building, including institutions to promote research into and management of marine living resources.

#### E. Addressing critical uncertainties for the management of marine environment and climate change

At PrepComs II and III, the island developing countries had suggested this issue should be taken up in the Oceans chapter, as they wished to address the linkages among climate change, sea level rise, and the resulting impact on islands and other vulnerable coastal areas. Recent reports about the growing ozone hole in the Antarctic region and its possible impact on nearby countries prompted Argentina and Chile to highlight the need to recognize the impact of increased ultraviolet radiation on the marine environment.

Although delegations certainly supported the need for more and better exchanges of data and information to forecast and thus tackle regional and global marine environmental

problems, several countries (in particular, Brazil, Colombia, Mexico, and India) asserted that the acquisition of such data should not infringe on national sovereignty. They thus had some difficulty supporting any proposal which appeared to suggest that an "external entity" could monitor their EEZs to obtain data which might be used against them (for example, contradicting their own reports, criticizing economic activities in the EEZ). Indeed, the Latin Americans reiterated their concern about the term "monitor", as it "translated badly into Spanish." Hence, they tended to emphasize the need to enhance existing data bases and to promote better cooperation among existing relevant UN bodies.

One issue which became particularly contentious was the UNESCO (International Oceanographic Commission-IOC) proposal regarding the Global Ocean Observing System (GOOS). Canada and the USA suggested that the text should contain language encouraging the IOC's work in developing the GOOS proposal and supporting its establishment. Mexico opposed this, saying that GOOS was yet to receive full endorsement by the IOC. Following some wrangling in the contact group, the reference to GOOS was dropped; Canada and the USA subsequently spoke to the Mexicans bilaterally and a "package" was proposed, but it carried a "price tag in principle." In exchange for a reference to GOOS, the developed countries had to agree that they should "provide the financing for the further development and implementation of the GOOS." The USA hesitated and Japan insisted initially that, like all other paragraphs in the Oceans chapter dealing with the financial and technological means of implementation, it should go in square brackets. Mexico refused, stating that developed countries were the champions of GOOS and should be prepared to pay for it. In the end, the USA and Japan backed down and the "package" was accepted (This is largely because many developed countries already have the data bases and hardware and simply have to consolidate and "connect" them to other systems).

With respect to the ozone issue, Argentina and Chile called for a "compensation regime" for countries adversely affected by the depletion of the ozone layer. This was completely unacceptable to the OECD countries and was referred to both Bukar Shaib and Working Group I Chairman Bo Kjellen for resolution (the latter because it dealt with an issue for which he was responsible). Their compromise proposal, which drew on the "atmospheric issues" discussion in the PrepCom, called for countries to promote scientific research in this area, and based on these results, "States and international organizations should consider taking appropriate remedial measures."

The rest of the section emphasizes the need for research, common methodologies, and information and data exchange to deal with critical uncertainties, as well as requisite education and capacity-building.

F. Strengthening international, including regional, cooperation and coordination

This section took on added relevance following the recent decision of the UN Secretary-General to have the UN Office of Oceans Affairs and Law of the Sea (OALOS) absorbed into the UN Legal Office (with the resulting termination of Under-Secretary-General Satya Nandan's appointment). New Zealand expressed concern about how oceans issues would be adequately addressed in the UN system after UNCED. This view, shared by many delegations, thus led to a text which suggests that the "General Assembly should provide for regular consideration...of general marine and coastal issues, including environment and development matters..."

The above language lacks clarity for a couple of reasons: a) delegations wanted to avoid prejudging the outcome of Working Group III's deliberations on follow-up institutions dealing with all aspects of Agenda 21; and b) Japan, in particular, appeared reluctant to have oceans issues considered by the General Assembly, but rather by the relevant bodies dealing with specific issues (for example, FAO for fisheries).

This section also calls for strengthened inter- and intra-agency cooperation and coordination; better information exchange; and improved coordination among regional organizations and between them and the UN system.

G. Sustainable development of small islands

Barbados led a group of countries in shaping this section of the Oceans chapter, which outlines a plan of action for small island States to promote sustainable ecosystems. The text is notable in that it stresses the need for plans, regulations, and measures to be taken by small island States to deal with environment and development problems; compared to other parts of the chapter, there is less emphasis on the financial and technological means required to achieve the above objectives. In short, the text suggests countries can develop rules and guidelines for protecting the environment and promoting sustainable development.

The section summarizes requirements for the sustainable development of small islands, including research; data

acquisition and exchange; management techniques and technologies; "principles", including prior assessment, precautionary, and anticipatory approaches; human resources development, and capacity-building. International cooperation, involving island States and international organizations, is encouraged, including periodic meetings. The text calls for a "first Global Conference on the sustainable development of small island developing States to be held in 1993."

#### **OUTCOME AND ASSESSMENT**

The general mood at the end of PrepCom IV was that delegations had succeeded in outlining priority issues on oceans, within a balanced framework of environmental and developmental concerns. Much of the text draws on existing legal regimes, ongoing deliberations (technical, legal, and/or political), and commonsense approaches to well-known problems (a reflection of the delegates themselves, many of whom were either UNCLOS or technical experts).

One negative aspect of the Oceans chapter is that the language is not as strong or "committed" as Canada and other countries would have liked. India (supported by Brazil, Colombia, and Mexico) tended to "water down" proposals by using the trademark phrases, "as appropriate", "where appropriate," or "subject to national priorities." At times, it seemed as if developing countries not only insisted that any commitment must be accompanied by requisite financial and technological means of implementation, but that even with such means, they were not prepared to make the changes required to promote the sustainable development of marine ecosystems. This theme appears to have been echoed throughout the Agenda 21 discussions.

The high seas fisheries problem was an area in which delegations could break new ground in agreeing to rules on managing living resources of the global commons. As it is an issue of increasing economic and ecological importance, it struck at the very soul of the 1992 Conference. Canada's decision (supported by the Santiago Group) to bring this issue to the UN succeeded in raising awareness by delegations and NGOs about the serious potential consequences of overfishing on the high seas. Although we may not succeed in agreeing on new rules in Rio, we are likely to agree on a process towards better implementing the salient provisions of UNCLOS regarding straddling stocks and highly migratory species.

Because the Oceans chapter involved a dedicated community of

representatives from numerous coastal States, it is more likely than other parts of Agenda 21 to survive any possible dissipation resulting from no agreement on the "UNCED package" in Rio. The text calls for three or four conferences (CZM, degradation of the marine environment from land-based activities, islands, and possibly high seas fisheries) and regular follow-up of oceans issues through the UN General Assembly (or the new institution, if it is agreed to at UNCED). This demonstration of political will should help ensure that the positive results on oceans are not lost, should UNCED not achieve its interlinked objectives.

Report prepared by:

Alexandra Bezeredi  
EAITC  
Permanent Mission, NY  
(212) 751-5600

Further information:

John Lark  
Fisheries and Oceans  
990-0011

John Karau  
Environment Canada  
953-1699



General Assembly

Distr.  
LIMITED

A/CONF.151/PC/WG.II/L.25/Rev.1  
30 March 1992

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE UNITED  
NATIONS CONFERENCE ON ENVIRONMENT  
AND DEVELOPMENT

Fourth session

New York, 2 March-3 April 1992

Agenda item 2 (c) of Plenary

Agenda 2 of Working Group II

PROTECTION OF OCEANS, ALL KINDS OF SEAS INCLUDING ENCLOSED  
AND SEMI-ENCLOSED SEAS, COASTAL AREAS AND THE PROTECTION,  
RATIONAL USE AND DEVELOPMENT OF THEIR LIVING RESOURCES

(Section II, Chapter 9, of Agenda 21)

Text submitted by the Chairman on the basis of negotiations  
held on document A/CONF.151/PC/100/Add.21

INTRODUCTION

1. The marine environment - including the oceans and adjacent coastal areas - forms an integrated whole that is an essential component of the global life support system, and a positive asset presenting opportunities for sustainable development. International law, as reflected in the provisions of the United Nations Convention on the Law of the Sea <sup>1/</sup>referred to in this chapter of Agenda 21, sets forth rights and obligations of States and provides the international basis upon which to pursue the protection and sustainable development of the marine and coastal environment and its resources. This requires new approaches to ~~ocean~~ and coastal area management and development, at the national, subregional, regional and global levels, approaches that are integrated in content, and precautionary and anticipatory in ambit, as reflected in the following programme areas: 2/

See  
related

- A. INTEGRATED MANAGEMENT AND SUSTAINABLE DEVELOPMENT OF COASTAL AREAS, INCLUDING EXCLUSIVE ECONOMIC ZONES
- B. MARINE ENVIRONMENTAL PROTECTION

- Naure:*
- C. SUSTAINABLE USE AND CONSERVATION OF HIGH SEAS LIVING RESOURCES OF THE HIGH SEAS AND CONSERVATION
  - D. SUSTAINABLE USE OF LIVING MARINE RESOURCES UNDER NATIONAL JURISDICTION
  - E. ADDRESSING CRITICAL UNCERTAINTIES FOR THE MANAGEMENT OF MARINE ENVIRONMENT AND CLIMATE CHANGE
  - F. STRENGTHENING INTERNATIONAL, INCLUDING REGIONAL, COOPERATION AND COORDINATION
  - G. SUSTAINABLE DEVELOPMENT OF ISLANDS

42. The implementation of ~~the above activities~~ by developing countries<sup>of the activities 81</sup> shall<sup>form</sup> be commensurate with their individual levels of technological and financial capacities. ~~their~~<sup>the</sup> priorities in allocating resources for development needs, and ultimately ~~dependent~~<sup>dependent</sup> on the technology transfer and financial resources required and made available. *to them, 3, 4*

A. Integrated management and sustainable development of coastal and marine areas, including exclusive economic zones

Basis for action

3. The coastal area contains diverse and productive habitats important for human settlements, development and local subsistence. More than half the world's population lives within 60 km of the shoreline, and this could rise to three quarters by the year 2020. Many of the world's poor are crowded in coastal areas. Coastal resources are vital for many local communities and indigenous people. The Exclusive Economic Zone (EEZ) is also an important marine area where the States manage the development and conservation of natural resources for the benefit of their people. For small island States or countries, these are the areas most available for development activities.

4. Despite national, subregional, regional and global efforts, current approaches to the management of marine and coastal resources have not always proved capable of achieving sustainable development and coastal resources and the coastal environment ~~of the littoral~~ are being rapidly degraded and eroded in many parts of the world.

Objectives

5. Coastal States commit themselves to integrated management and sustainable development of coastal areas and the marine environment under their national jurisdiction. ~~To this end, it is necessary to inter alia:~~

(a) Provide for an integrated policy and decision-making process, including all involved sectors to promote compatibility and balance of uses;

- (b) Identify existing and projected uses of coastal areas and their interactions;
- (c) Concentrate on well-defined coastal management related issues;
- (d) Apply preventive and precautionary approaches in project planning and implementation, including prior assessment and systematic observation of the impacts of major projects;
- (e) Promote the development and application of methods, such as national resource and environmental accounting, that reflect changes in value resulting from uses of coastal and marine areas, including pollution, marine erosion, loss of resources and habitat destruction;
- (f) Provide access, as far as possible, for concerned individuals, groups and organizations to relevant information and opportunities for consultation and participation in planning and decision-making at appropriate levels.

#### Activities

##### Management-related

6. Each coastal State should consider establishing, or where necessary strengthening, appropriate coordinating mechanisms (such as a high-level policy planning body) for integrated management and sustainable development of coastal and marine areas and their resources, at both the local and national levels. Such mechanisms should include consultation, as appropriate, with the academic and private sectors, non-governmental organizations, local communities, resource user groups, and indigenous people. Such national coordinating mechanisms could provide inter alia for:

- (a) Preparation and implementation of land and water use and siting policies;
- (b) Implementation of integrated coastal and marine management and sustainable development plans and programmes at appropriate levels;
- (c) Preparation of coastal profiles identifying critical areas, including eroded zones, physical processes, development patterns, user conflicts and specific priorities for management;
- (d) Prior environmental impact assessment, systematic observation and follow-up of major projects including the systematic incorporation of results in decision-making;
- (e) Contingency plans for human induced and natural disasters, including likely effects of potential climate change and sealevel rise, as well as contingency plans for degradation and pollution from anthropogenic origin, including spills of oil and other materials;



(f) Improvement of coastal human settlements, especially in housing, drinking water and treatment and disposal of sewage, solid wastes and industrial effluents;

(g) Periodic assessment of the impacts of external factors and phenomena to ensure that the objectives of integrated management and sustainable development of coastal areas and the marine environment are met;

(h) Conservation and restoration of altered critical habitats;

(i) Integration of sectoral programmes on sustainable development for settlements, agriculture, tourism, fishing, ports and industries affecting the coastal area;

(j) Infrastructure adaptation and alternative employment;

(k) Human resource development and training;

(l) Public education, awareness and information programmes;

(m) Promoting environmentally sound technology and sustainable practices;

(n) Development and simultaneous implementation of environmental quality criteria.

7. Coastal States with the support of international organizations, upon request, should undertake measures to maintain biological diversity and productivity of marine species and habitats under national jurisdiction. Inter alia, these measures might include: surveys of marine biodiversity, inventories of endangered species and critical coastal and marine habitats; establishment and management of protected areas; and support of scientific research and dissemination of its results.

#### Data and information

8. Coastal States, where necessary, should improve their capacity to collect, analyse, assess and use information for sustainable use of resources, including environmental impacts of activities affecting the coastal and marine areas. Information for management purposes should receive priority support in view of the intensity and magnitude of the changes occurring in the coastal and marine areas. To this end, it is necessary to, inter alia:

(a) Develop and maintain databases for assessment and management of coastal areas and all seas and their resources;

(b) Develop socio-economic and environmental indicators;

(c) Conduct regular environmental assessment of the state of the environment of coastal and marine areas;

(d) Prepare and maintain profiles of coastal area resources, activities, uses, habitats and protected areas based on the criteria of sustainable development;

(e) Exchange information/data.

9. Cooperation with developing countries, and, where applicable, subregional and regional mechanisms should be strengthened to improve their capacities to achieve the above.

#### International and regional cooperation and coordination

10. The role of international cooperation and coordination on a bilateral basis and, where applicable, within a subregional, interregional, regional or global framework, is to support and supplement national efforts of coastal States to promote integrated management and sustainable development of coastal and marine areas.

11. States should cooperate, as appropriate, in the preparation of national guidelines for integrated coastal zone management and development, drawing on existing experience. A ~~first~~ global conference to exchange experience in the field could be held before 1994.

#### Means of implementation

##### Financing and cost evaluation

[12. The total cost estimate for all countries to implement integrated management and sustainable development of coastal areas and EEZs is approximately \$85 billion through the year 2000. The cost estimate for developing countries would be approximately \$50 billion, or about \$6 billion per year for 1993-2000.]

[13. Of the \$6 billion annual estimated costs about \$50 million per year between 1993-2000 in catalytic funding is proposed to support programmes for integrated management and sustainable development of coastal areas. Of this, \$36 million is proposed to assist developing countries with technical cooperation and training for institutional strengthening, improvement of databases, upgrading of research and management capacity, implementation of pilot demonstration projects and production of detailed operational guidelines, plus \$6 million to address global issues. The sum of \$8 million is proposed to help strengthen international and regional organizations in this field.]

##### Scientific and technological means

14. States should cooperate in the development of necessary coastal systematic observation, research and information management systems. They should provide access to and transfer environmentally safe technologies and methodologies for sustainable development of coastal and marine areas to

developing countries. They should also develop technologies and endogenous scientific and technological capacities.

15. International organizations, whether subregional, regional or global, as appropriate, should support coastal States, upon request, in these efforts, as indicated above, devoting special attention to developing countries.

#### Human resource development

16. Coastal States should promote and facilitate the organization of education and training in integrated coastal and marine management and sustainable development for scientists, technologists, managers, including community-based managers and users, leaders, indigenous peoples, fisherfolk, women and youth among others. Management, development as well as environmental protection concerns, and local planning issues should be incorporated in educational curricula and public awareness campaigns, with due regard to traditional ecological knowledge and socio-cultural values.

17. International organizations, whether subregional, regional or global, as appropriate, should support coastal States, upon request, in the areas, as indicated above, devoting special attention to developing countries.

#### Capacity-building

18. Full cooperation should be extended, upon request, to coastal States in their efforts for capacity-building and where appropriate, capacity-building should be included in bilateral and multilateral development cooperation. Coastal States may consider, inter alia:

- (a) Ensuring capacity-building at the local level;
- (b) Consulting on coastal and marine issues with local administrations, the business community, the academic sector, resource user groups and the general public;
- (c) Coordinating sectoral programmes while building capacity;
- (d) Identifying existing and potential capabilities, facilities and needs for human resources development and scientific and technological infrastructure;
- (e) Developing scientific and technological means and research;
- (f) Promoting and facilitating human resource development and education;
- (g) Supporting "centres of excellence" in integrated coastal and marine resource management;
- (h) Supporting pilot demonstration programmes and projects in integrated coastal and marine management.

## B. Marine environmental protection

### Basis for action

19. Degradation of the marine environment can result from a wide range of sources. Land-based sources contribute 70 per cent of marine pollution, while maritime transport and dumping at sea activities contribute 10 per cent each. Contaminants which pose the greatest threat to the marine environment are in variable order of importance and depending on differing national or regional situations: sewage, nutrients, synthetic organic compounds, sediments, litter and plastics, metals, radionuclides, oil/hydrocarbons, and polycyclic aromatic hydrocarbons (PAHs). Many of the polluting substances originating from land-based sources are of particular concern to the marine environment since they exhibit at the same time toxicity, persistence and bioaccumulation in the food chain. There is currently no global scheme to address marine pollution from land-based sources.

20. Degradation of the marine environment can also result from a wide range of activities on land. Human settlements, land use, construction of coastal infrastructure, agriculture, forestry, urban development, tourism and industry can affect the marine environment. Coastal erosion and siltation are of particular concern.

21. Marine pollution is also caused by shipping and sea-based activities. Approximately 600,000 tons of oil enter the oceans each year, as a result of normal shipping operations, accidents and illegal discharges. With respect to offshore oil and gas activities, currently machinery space discharges are regulated internationally and six regional conventions to control platform discharges have been under consideration. The nature and extent of environmental impacts from offshore oil exploration and production activities generally account for a very small proportion of marine pollution.

22. A precautionary and anticipatory rather than a reactive approach is necessary to prevent the degradation of the marine environment. This requires, inter alia, the adoption of precautionary measures, environmental impact assessments, clean production techniques, recycling, waste audits and minimization, construction and/or improvement of sewage treatment facilities, quality management criteria for the proper handling of hazardous substances, and a comprehensive approach to damaging impacts from air, land and water. Any management framework must include the improvement of coastal human settlements and the integrated management and development of coastal areas.

### Objectives

23. States, in accordance with the provisions of the United Nations Convention on the Law of the Sea on protection and preservation of the marine environment, commit themselves, in accordance with their policies, priorities and resources, to prevent, reduce and control degradation of the marine environment so as to maintain and improve its life support and productive capacities. To this end, it is necessary to:

(a) Apply preventive, precautionary and anticipatory approaches so as to avoid degradation of the marine environment, as well as reducing the risk of long-term or irreversible adverse effects upon it;

(b) Ensure prior assessment of activities which may have significant adverse impacts upon the marine environment;

(c) Integrate protection of the marine environment into relevant general environmental, social and economic development policies;

(d) Develop economic incentives, where appropriate, to apply clean technologies and other means consistent with the internalization of environmental costs, such as the polluter pays principle, so as to avoid degradation of the marine environment;

(e) Improve the living standards of coastal populations, particularly in developing countries, so as to contribute to reducing the degradation of the coastal and marine environment.

24. States agree that provision of additional financial resources, through appropriate international mechanisms, as well as access to cleaner technologies and relevant research, would be necessary to support action by developing countries to implement this commitment. 3/

#### Activities

(a) Prevention, reduction and control of degradation of the marine environment from land-based activities

25. In carrying out their commitment to deal with degradation of the marine environment from land-based activities, States should take action at the national level and, where appropriate, at the regional and subregional levels, in concert with action to implement programme area A, and take account of the Montreal Guidelines for the Protection of the Marine Environment from Land-Based Sources. ~~In addition, they should also strengthen and extend bilateral and multilateral cooperation, as appropriate.~~

26. To this end, States, with the support of the relevant international environmental, scientific, technical and financial organizations, should cooperate, inter alia, to:

(a) Consider updating, strengthening and extending the Montreal Guidelines, as appropriate;

(b) Assess the effectiveness of existing regional agreements and action plans, where appropriate, with a view to identifying means of strengthening action, where necessary, to prevent, reduce and control marine degradation caused by land-based activities;

(c) Initiate and promote the development of new regional agreements, where appropriate;

(d) Develop means of providing guidance on technologies to deal with the major types of pollution of the marine environment from land-based sources, according to the best scientific evidence;

(e) Develop policy guidance to relevant global funding mechanisms; 3/

(f) Identify additional steps requiring international cooperation.

27. The UNEP Governing Council is invited to convene, as soon as practicable, an intergovernmental meeting on protection of the marine environment from land-based activities.

28. As concerns sewage, priority actions to be considered by States may include:

(a) Incorporating sewage concerns when formulating or reviewing coastal development plans including human settlement plans;

(b) Building and maintaining sewage treatment facilities in accordance with national policies and capacities and international cooperation available;

(c) Locating coastal outfalls so as to maintain an acceptable level of environmental quality and to avoid exposing shell fisheries, water intakes and bathing areas to pathogens;

(d) Promoting environmentally sound co-treatments of domestic and compatible industrial effluents, with the introduction, where practicable, of controls on the entry of effluents which are not compatible with the system;

(e) Promoting primary treatment of municipal sewage discharged to rivers, estuaries and the sea, or other solutions appropriate to specific sites;

(f) Establishing and improving local, national subregional, and regional, as necessary, regulatory and monitoring programmes to control effluent discharge using minimum sewage effluent guidelines and water quality criteria giving due consideration to the characteristics of receiving bodies and the volume and type of pollutants.

29. As concerns other sources of pollution, priority actions to be considered by States may include:

(a) Establishing or improving, as necessary, regulatory and monitoring programmes to control effluent discharges and emissions including the development and application of control and recycling technologies;

(b) Promoting risk and environmental impact assessments to help ensure an acceptable level of environmental quality;

(c) Promoting assessment and cooperation at the regional level, where appropriate, with respect to the input of point source pollutants from new installations;

(d) Eliminating the emission or discharge of organohalogen compounds which threaten to accumulate to dangerous levels in the marine environment;

(e) Reducing the emission or discharge of other synthetic organic compounds which threaten to accumulate to dangerous levels in the marine environment;

(f) Promoting controls over anthropogenic inputs of nitrogen and phosphorus which enter coastal waters where problems, such as eutrophication, threaten the marine environment or its resources;

(g) Cooperating with developing countries, through financial and technological support, to maximize best practicable control and reduction of substances and wastes that are persistent, liable to bio-accumulate or toxic, and to establish environmentally sound land-based waste disposal alternatives to sea dumping;

(h) Cooperating in the development and implementation of environmentally sound land uses techniques and practices to reduce run-off to water-courses and estuaries which would cause pollution or degradation of the marine environment;

(i) Promoting the use of environmentally less harmful pesticides and fertilizers, and alternative methods for pest control, and considering prohibiting the use of those found to be environmentally unsound;

(j) Adopting new initiatives at national, subregional and regional levels for controlling the input of non-point source pollutants, which require broad changes in sewage and waste management, agricultural practices, mining, construction and transportation.

30. As concerns physical destruction of coastal and marine areas causing degradation of the marine environment, priority actions should include control and prevention of coastal erosion and siltation due to anthropogenic factors related to, inter alia, land-use and construction techniques and practices. Watershed management practices should be promoted so as to prevent, control, and reduce degradation of the marine environment.

(b) Prevention, reduction and control of degradation of the marine environment from sea-based activities

31. States, acting individually, bilaterally, regionally or multilaterally and within the framework of IMO and other relevant international organizations, whether subregional, regional or global, as appropriate, should assess the need for additional measures to address degradation of the marine environment:

- (a) From shipping, by:
  - (i) Supporting wider ratification and implementation of relevant shipping conventions and protocols;
  - (ii) Facilitating the processes in (i), providing support to individual States upon request to help them overcome the obstacles identified by them;
  - (iii) Cooperating in monitoring marine pollution from ships, especially *from* ~~for~~ illegal discharges, (e.g., aerial surveillance) and enforcing MARPOL discharge provisions more rigorously;
  - (iv) Assessing the state of pollution caused by ships in particularly sensitive areas identified by IMO and taking action to implement applicable measures, where necessary, within such areas to ensure compliance with generally accepted international regulations;
  - (v) Taking action to ensure respect of areas designated by coastal States, within their EEZs, consistent with international law, in order to protect and preserve rare or fragile ecosystems, such as coral reefs and mangroves;
  - (vi) Considering adoption of appropriate rules on ballast water discharge to prevent the spread of non-indigenous organisms;
  - (vii) Promoting navigational safety by adequate charting of coasts and ship-routing, as appropriate;
  - (viii) Assessing the need for stricter international regulations to further reduce the risk of accidents and pollution from cargo ships (including bulk carriers);
  - (ix) Encouraging IMO and IAEA to work together to complete consideration of a Code on the carriage of irradiated nuclear fuel in flasks on board ships;
  - (x) Revising and updating the IMO Code of Safety for Nuclear Merchant Ships and considering how best to implement a revised code;



- (xi) Supporting the ongoing activity within IMO regarding development of appropriate measures for reducing air pollution from ships;
  - (xii) Supporting the ongoing activity within IMO regarding the development of an international regime governing the transportation of hazardous and noxious substances carried by ships and further consider whether the compensation funds similar to the ones established under the Fund Convention would be appropriate in respect of pollution damage caused by substances other than oil;
- (b) From dumping, by:
- (i) Supporting wider ratification, implementation and participation in relevant Conventions on dumping at sea including early conclusion of a future strategy for the London Dumping Convention;
  - (ii) Encouraging the London Dumping Convention parties to take appropriate steps to stop ocean dumping and incineration of hazardous substances;
- (c) From offshore oil and gas platforms, by assessing existing regulatory measures to address discharges, emissions, and safety and the need for additional measures;
- (d) From ports, by facilitating establishment of port reception facilities for the collection of oily and chemical residues and garbage from ships, especially in MARPOL special areas, and promoting the establishment of smaller scale facilities in marinas and fishing harbours.
32. IMO and as appropriate, other competent United Nations bodies, when requested by the States concerned, should assess, where appropriate, the state of marine pollution in areas of congested shipping, such as heavily used international straits, with a view to ensuring compliance with generally accepted international regulations, particularly those related to illegal discharges from ships, in accordance with the provisions of Part III of the United Nations Convention on the Law of the Sea.
33. States should take measures to reduce water pollution caused by organotin compounds used in anti-fouling paints.
34. States should consider ratifying the Convention on Oil Pollution Preparedness, Response, and Cooperation which addresses, inter alia, the development of contingency plans on the national and international level, as appropriate, including provision of oil spill response material and training of personnel, including its possible extension to chemical spill response.

35. States should intensify international cooperation to strengthen or establish, where necessary, regional oil/chemical spill response centres and/or, as appropriate, mechanisms in cooperation with relevant subregional, regional or global, and where appropriate, industry-based organizations.

Data and information *Intergovernmental organizations*

36. States should, as appropriate, and in accordance with the means at their disposal and with due regard for their technical and scientific capacity and resources, make systematic observations on the state of the marine environment. To this end, States should, as appropriate, consider:

(a) Establishing systematic observation systems to measure marine environmental quality, including causes and effects of marine degradation, as a basis for management;

(b) Regularly exchanging information on marine degradation caused by land-based and sea-based activities and on actions to prevent, control and reduce such degradation;

(c) Supporting and expanding international programmes for systematic observations such as the mussel watch programme, building on existing facilities with special attention to developing countries;

(d) Establishing a clearing house on marine pollution control information, including processes and technologies to address marine pollution control and to support their transfer to developing countries and other countries with demonstrated needs; 4/

(e) Establishing a global profile and database providing information on the sources, types, amounts, and effects of pollutants reaching the marine environment from land-based activities in coastal areas and sea-based sources;

(f) Allocating adequate funding for capacity-building and training programmes to ensure the full participation of, in particular, developing countries in any international scheme under the organs and organizations of the United Nations system for the collection, analysis and use of data and information. 3/

Means of implementation

Financing and cost evaluation

(a) Land-based activities

[37. Since many activities on land have impacts on the marine environment, the cost estimates to control the major sources of pollution and other impacts are very high. A crude extrapolation based on a few regional studies in semi-enclosed seas gives figures ranging from \$5-20 billion per year over 20 years for the necessary investments. On the other hand, the benefits

gained from protecting major economic activities in marine and coastal areas far outweigh the costs in the regions studied. Mechanisms such as user fees and charges for pollution violations are needed to raise the necessary sums from those most directly concerned and best able to bear the costs, and to channel the revenues into construction and operation of the necessary facilities. For technical cooperation with developing countries to implement Agenda 21 activities, the following amounts are proposed: \$14 million in direct assistance, \$4 million to address global issues and \$2 million to strengthen international organizations, for a total of \$20 million per year. This amount needs to be complemented by major activities contained in other programme areas.]

(b) Sea-based activities

[38. An estimated \$84 million per year is needed to build waste reception facilities in ports in developing countries. This will require special funding mechanisms such as loans or grants from international agencies, including the Global Environmental Facility or a system of "Reception Facility Funds", with the assistance of IMO. Income should be raised from shipping to cover at least the operation and maintenance of these facilities, if not to reimburse the capital investment.]

[39. Provision of oil spill response materials and equipment, apart from the larger countries that have already invested hundreds of millions of dollars in stockpiles, is estimated at \$50 million per year from 1993 to 2000. To this should be added \$40 million per year for technical cooperation and capacity-building in developing countries, all with reference to global issues, including \$6 million to strengthen international organizations.]

*Heading* — *Scientific and Technological means*

40. National, subregional and regional action programmes will, where appropriate, require [technological cooperation,] technology transfer, and financial resources, particularly where developing countries are concerned, including:

(a) Assistance to industries in identifying and adopting clean production or cost-effective pollution control technologies;

(b) Planning development and application of low-cost and low-maintenance sewage installation and treatment technologies for developing countries;

(c) Equipment of laboratories to observe systematically human and other impacts on the marine environment;

(d) Identification of appropriate oil and chemical spill control materials, including low-cost locally available materials and techniques, suitable for pollution emergencies in developing countries;

(e) Study of the use of persistent organohalogenes that are liable to accumulate in the marine environment to identify those which cannot be adequately controlled and to provide a basis for a decision on a time schedule for phasing them out as soon as practicable;

(f) Establishment of a clearing house on marine pollution control, information, including processes and technologies to address marine pollution control and to support their transfer to developing and other countries with demonstrated needs. 4/

Human resources development

41. States individually or in cooperation with each other and with the support of international organizations, whether subregional, regional or global, as appropriate, should:

(a) Provide training for critical personnel required for the adequate protection of the marine environment as identified by training needs' surveys at the national, regional or subregional levels;

(b) Promote the introduction of marine environmental protection topics into the curriculum of marine studies programmes;

(c) Establish training courses for oil and chemical spill response personnel, in cooperation where appropriate, with the oil and chemical industries;

(d) Conduct workshops on environmental aspects of port operations and development;

(e) Strengthen and provide secure financing for new and existing specialized international centres of professional maritime education; 3/

(f) States should, through bilateral and multilateral cooperation support and supplement the national efforts of developing countries as regards human resources development in relation to prevention and reduction of degradation of the marine environment.

Capacity-building

42. National planning and coordinating bodies should be given the capacity and authority to review all land-based activities and sources of pollution for their impacts on the marine environment and to propose appropriate control measures.

43. Research facilities should be strengthened or, where appropriate, developed in developing countries, for systematic observation of marine pollution, environmental impact assessment and development of control recommendations, managed and staffed by local experts.

44. Special arrangements will be needed to provide adequate financial and technical resources to assist developing countries to prevent and solve problems associated with activities that threaten the marine environment.

45. An international funding mechanism should be created for the application of appropriate sewage treatment technologies and building sewage treatment

facilities, including grants or concessional loans from international agencies and appropriate regional funds, replenished at least in part on a revolving basis by user fees. 3/

46. In carrying out these programme activities, particular attention needs to be given to the problems of developing countries who would bear an unequal burden because of their lack of facilities, expertise or technical capacities.

C. Sustainable use and conservation of <sup>marine</sup> high seas living resources of the high seas

Basis for action

47. Over the last decade, fisheries on the high seas have considerably expanded and currently represent approximately 5 per cent of total world landings. The provisions of the United Nations Convention on the Law of the Sea on the marine living resources of the high seas sets forth ~~the~~ rights and obligations of States with respect to conservation and utilization of those resources.

48. However, management of high seas fisheries, including the adoption, monitoring and enforcement of effective conservation measures, is inadequate in many areas and some resources are overutilized. There are problems of unregulated fishing, overcapitalization, excessive fleet size, vessel reflagging to escape controls, insufficiently selective gear, unreliable databases and in general lack of sufficient cooperation between States. Action by States, whose nationals and vessels fish on the high seas, as well as cooperation at the bilateral, subregional, regional and global levels, is essential, particularly for highly migratory species and straddling stocks. Such action and cooperation should address inadequacies in fishing practices as well as in biological knowledge, fisheries statistics and improvement in systems for handling data. Emphasis should also be on multi-species management, and other approaches which take into account the relationships among species, especially in addressing depleted species, but also in identifying the potential of underutilized or unutilized populations.

Objectives

49. States commit themselves to the conservation and sustainable use of marine living resources on the high seas. To this end, it is necessary to: 3/

(a) Develop and increase the potential of marine living resources to meet human nutritional needs as well as social, economic and development goals;

(b) Maintain or restore populations of marine species at levels which can produce the maximum sustainable yield as qualified by relevant environmental and economic factors, taking into consideration relationships among species;

(c) Promote the development and use of selective fishing gear and practices that minimize waste of catch of target species and minimize bycatch of non-target species;

(d) Ensure effective monitoring and enforcement with respect to fishing activities;

(e) Protect and restore endangered marine species;

(f) Preserve habitats and other ecologically sensitive areas;

(g) Promote scientific research with respect to the marine living resources in the high seas;

~~[(h) Cooperate to ensure that high seas fishing does not have an adverse impact on the marine living resources under the national jurisdiction of coastal States.]~~

50. Nothing in paragraph 49 above restricts the right of a State or the competence of an international organization, as appropriate, to prohibit, limit or regulate the exploitation of marine mammals on the high seas more strictly than provided for in that paragraph. States shall cooperate with a view to the conservation of marine mammals and in the case of cetaceans shall in particular work through the appropriate international organizations for their conservation, management and study.

51. The ability of developing countries to fulfil the above objectives is dependent upon their capabilities, including the financial, scientific and technological means at their disposal. Adequate financial, scientific and technological cooperation should be provided to support action by them to implement these objectives. 3/

#### Activities

##### Management related

52. States should take effective action, including bilateral and multilateral cooperation, where appropriate at the subregional, regional and global level, to ensure that high seas fisheries are managed in accordance with the provisions of the United Nations Convention on the Law of the Sea. In particular, they should:

(a) Give full effect to these provisions with regard to fisheries populations whose ranges lie both within and beyond exclusive economic zones (straddling stocks);

(b) Give full effect to these provisions with regard to highly migratory species;

(c) Negotiate, where appropriate, international agreements for the effective management and conservation of fishery stocks;

(d) Define and identify appropriate management units;

(e) Develop guidelines for better implementation of the provisions of ~~international law on high seas fisheries, reflected in the United Nations Convention on the Law of the Sea on high seas fisheries.~~

*see attached - 52 bis  
- extracts  
p. 1*  
[53. States whose [nationals] [vessels] fish for straddling stocks on the high seas and the coastal States in whose exclusive economic zones such stocks occur, should cooperate with a view to agreeing on measures [applicable on the high seas] necessary to ensure the conservation and sustainable use of such stocks. Such measures should:

(a) Be consistent with measures applied by the coastal States within the exclusive economic zones;

(b) Give effect to the special interest and responsibility of the coastal States with respect to the portion of the straddling stocks beyond the exclusive economic zones;]

[54. States whose [nationals] [vessels] fish for stocks of highly migratory species on the high seas and coastal States in whose EEZs such stocks occur should cooperate with a view to agreeing on measures [applicable on the high seas] necessary to ensure the conservation and management of such stocks. Such measures should:

(a) Fully recognize the sovereign rights of the coastal States in their EEZs;

(b) Take into account the special interest of the coastal States in these stocks outside their EEZs, thereby avoiding adverse impacts on such stocks within their EEZs.]

[55. bis States bordering on enclosed and semi-enclosed seas should cooperate with each other in accordance with relevant provisions of the Convention on the Law of the Sea, in particular, with respect to the management, conservation, exploration and exploitation of the marine living resources of the sea.]

56. States should ensure that fishing activities by vessels flying their flags in the high seas take place in a manner so as to minimize incidental catch.

57. States should take effective action consistent with international law to monitor and control fishing activities by vessels flying their flags on the high seas to ensure compliance with applicable conservation and management rules, including full, detailed, accurate and timely reporting of catches and effort.

58. States should take effective action consistent with international law, to deter reflagging of vessels by their nationals as a means of avoiding

52. Bis States should convene, as soon as possible, an intergovernmental conference, under United Nations auspices, taking into account relevant activities at the subregional, regional and global levels, with a view to promoting effective implementation of the provisions of the United Nations Convention on the Law of the Sea on straddling fish stocks and highly migratory fish stocks. The conference should identify and assess existing problems related to the conservation and management of such fish stocks, consider means of improving cooperation among States and formulate appropriate recommendations.



compliance with applicable conservation and management rules for fishing activities on the high seas.

59. States should prohibit dynamiting, poisoning and other comparable destructive fishing practices.

60. States should fully implement General Assembly resolution 46/215 on large-scale pelagic drift-net fishing.

61. States should take measures to increase the availability of marine living resources as human food by reducing wastage, post-harvest losses and discards, and improving techniques of processing, distribution, and transportation.

Data and information

62. States, with the support of international organizations, whether subregional, regional or global, as appropriate, should cooperate to:

(a) Promote enhanced collection of data necessary for the conservation and sustainable use of the marine living resources of the high seas;

(b) Exchange on a regular basis up-to-date data and information adequate for fisheries assessment;

(c) Develop and share analytical and predictive tools such as stock assessment and bioeconomic models;

(d) Establish or expand appropriate monitoring and assessment programmes.

International and regional cooperation and coordination

63. States, through bilateral and multilateral cooperation and within the framework of subregional and regional fisheries bodies as appropriate, and with the support of other international intergovernmental agencies should assess high seas resource potentials and develop profiles of all stocks (target and non-target).

64. States should <sup>where appropriate,</sup> ensure ~~where and as appropriate,~~ adequate levels of coordination and cooperation between subregional, regional and global intergovernmental fisheries bodies.

65. Effective cooperation within existing subregional, regional or global fisheries bodies should be encouraged. <sup>in enclosed and semi-enclosed seas, and</sup> Where such organizations do not exist, States should, as appropriate, cooperate to establish such organizations.

66. States with an interest in a high seas fishery regulated by an existing subregional and/or regional high seas fisheries organization of which they are not members, should be encouraged to join that organization, where appropriate.

67. States recognize:

(a) The responsibility of the International Whaling Commission for the conservation and management of whale stocks and the regulation of whaling pursuant to the 1946 International Convention for the Regulation of Whaling;

(b) The work of the International Whaling Commission Scientific Committee in carrying out studies of large whales in particular, as well as of other cetaceans;

(c) The work of other organizations, such as the Inter-American Tropical Tuna Commission and the Agreement on Small Cetaceans in the Baltic and North Sea under the Bonn Convention, in the conservation, management and study of cetaceans and other marine mammals.

68. States should cooperate for the conservation, management and study of cetaceans.

Means of implementation

[Financing and cost evaluation

69. The costs of developing sustainable uses of high seas resources should be borne by utilizing countries. The principal costs of research and management systems in the high seas should also be supported by the States [and the various users]. However, the catalytic funding required to improve the database and scientific knowledge, the effectiveness of fisheries management bodies, and the participation of all coastal countries, especially developing ones, in this effort is estimated at \$12 million per year for this global issue, including \$5 million to strengthen international and regional organizations.]

Scientific and technological means

70. States, with the support of relevant international organizations, where necessary, should develop collaborative technical and research programmes to improve understanding of the life cycles and migrations of species found on the high seas, including identifying critical areas and life stages.

71. States, with the support of relevant international organizations, whether subregional, regional or global, as appropriate, should:

(a) Develop databases on the high seas marine living resources and fisheries;

(b) Collect and correlate marine environmental data with high seas marine living resources data, including the impacts of regional and global changes brought about by natural causes as well as by human activities;

(c) Cooperate in coordinating research programmes to provide the knowledge necessary to manage high seas resources.

Human resources development

72. Human resources development at the national level should be targeted at both development and management of high seas resources, including training in high seas fishing techniques, and in high seas resource assessment, strengthening cadres of personnel to deal with the high seas resource management and conservation, and related environmental issues, and training observers and inspectors to be placed on fishing vessels.

Capacity-building

73. States with the support, where appropriate, of relevant international organizations, whether subregional, regional <sup>or</sup> and global, should cooperate to develop or upgrade systems and institutional structures for monitoring, control and surveillance as well as the research capacity for assessment of marine living resource population.

74. Special support, including cooperation among States, will be needed to enhance the capacities of developing countries in the areas of data and information, scientific and technological means and human resource development in order to participate effectively in the conservation and sustainable utilization of high seas marine living resources.

D. Sustainable use of marine living resources <sup>and conservation</sup>  
under national jurisdiction

Basis for action

75. Marine fisheries yield 80 to 90 million tons of fish and shellfish per year, 95 per cent of which is taken from waters under national jurisdiction. Yields have increased nearly fivefold over the past four decades. The provisions of the United Nations Convention on the Law of the Sea on marine living resources of the EEZ and other areas under national jurisdiction, set forth rights and obligations of States with respect to conservation and utilization of those resources.

76. Marine living resources provide an important source of protein in many countries and their use is often of major importance to local communities and indigenous people. Such resources provide food and livelihoods to millions of people and if sustainably utilized, offer increased potential to meet nutritional and social needs, particularly in developing countries. To realize this potential requires improved knowledge of marine living resources ~~stocks~~, particularly of underutilized and unutilized <sup>species</sup>, use of new technologies, better handling and processing facilities to avoid wastage and improve quality and training of skilled personnel to effectively manage and conserve the marine living resources of the EEZ and other areas under national jurisdiction. ~~Emphasis should also be on multi-species management and other approaches that take into account the relationships among species, especially in addressing depleted species, but also in identifying the potential of~~ underutilized or unutilized populations <sup>and identification</sup> ...

77. Fisheries in many areas under national jurisdiction face mounting problems, including local overfishing, unauthorized incursions by foreign fleets, ecosystem degradation, overcapitalization and excessive fleet sizes, underevaluation of catch, insufficiently selective gear, unreliable databases, increasing competition between artisanal and large-scale fishing, and between fishing and other types of activities.

78. Problems extend beyond fisheries. Coral reefs and other marine and coastal habitats such as mangroves and estuaries are among the most highly diverse, integrated and productive of the earth's ecosystems. They often serve important ecological functions, provide coastal protection, and are critical resources for food, energy, tourism and economic development. In many parts of the world, such marine and coastal systems are under stress or threatened from a variety of sources, both human and natural.

#### Objectives

79. Coastal States, particularly developing countries and States whose economies are overwhelmingly dependent on the exploitation of the marine living resources of their EEZs, should obtain the full social and economic benefits from sustainable utilization of marine living resources within their EEZs and other areas under national jurisdiction. 3/

80. States commit themselves to the conservation and sustainable use of marine living resources under national jurisdiction. To this end, it is necessary to: 3/

(a) Develop and increase the potential of marine living resources to meet human nutritional needs as well as social, economic and development goals;

(b) Take into account traditional knowledge and interests of local communities, small-scale artisanal fisheries and indigenous people in development and management programmes;

(c) Maintain or restore populations of marine species at levels which can produce the maximum sustainable yield as qualified by relevant environmental and economic factors, taking into consideration relationships among species;

(d) Promote the development and use of selective fishing gear and practices that minimize waste of catch of target species and minimize by-catch of non-target species;

(e) Protect and restore endangered marine species;

(f) Preserve rare or fragile ecosystems as well as habitats and other ecologically sensitive areas. 3/

85. Bis States, in implementing the provisions of the United Nations Convention on the Law of the Sea, should address the issues of straddling stocks, highly migratory species, and, taking fully into account the objective set out in paragraph 79, access to the surplus of allowable catches.

---

81. Nothing in paragraph 80 above restricts the right of a coastal State or the competence of an international organization, as appropriate, to prohibit, limit or regulate the exploitation of marine mammals more strictly than provided for in that paragraph. States shall cooperate with a view to the conservation of marine mammals and in the case of cetaceans shall in particular work through the appropriate international organizations for their conservation, management and study.

82. The ability of developing countries to fulfil the above objectives is dependent upon their capabilities, including the financial, scientific and technological means at their disposal. Adequate financial, scientific and technological cooperation should be provided to support action by them to implement these objectives. 3/

Activities

Management related

83. States should ensure that marine living resources of the exclusive economic zone and other areas under national jurisdiction are conserved and managed in accordance with the provisions of the United Nations Convention on the Law of the Sea.

[~~84.4~~ States should give attention to issues related to the conservation and management of straddling stocks, migratory species and access to surplus.]

or

see Chairman's note attached

[~~84.4~~ States should implement the provisions of the <sup>United Nations</sup> Convention on the Law of the Sea with regard to straddling stocks, migratory species and access to surplus.] 5/

85. Coastal States, individually or through bilateral and/or multilateral cooperation and with the support, as appropriate of international organizations, whether ~~of~~ subregional, regional or global ~~intergovernmental organizations~~, should inter alia:

(a) ~~Assess~~, the potential of marine living resources by developing inventories, where necessary, for their conservation and sustainable use; <sup>including underutilized or unutilized stocks and species.</sup>

(b) ~~Implement~~ strategies for the sustainable use of marine living resources, taking into account the special needs and interests of small-scale artisanal fisheries, local communities and indigenous people to meet human nutritional and other development needs;

(c) Implement, in particular in developing countries, mechanisms to develop mariculture, aquaculture, small-scale, deep-sea and oceanic fisheries within areas under national jurisdiction where assessments show that marine living resources are potentially available;

(d) Strengthen their legal and regulatory frameworks, where appropriate, including management, enforcement and surveillance capabilities, to regulate activities related to the above strategies;

(e) Take measures to increase the availability of marine living resources as human food by reducing wastage, post-harvest losses and discards, and improving techniques of processing, distribution, and transportation;

(f) Develop and promote the use of environmentally sound technology under criteria compatible with the sustainable use of marine living resources including assessment of environmental impact of major new fishery practices;

(g) Enhance the productivity and utilization of their marine living resources for food and income;

[(h) Identify underutilized or unutilized fish stocks with a view to improving their exploitation pattern, inter alia by granting access to States in accordance with the provisions of the Convention on the Law of the Sea.]

86. Coastal States should explore the scope to expand recreational and tourist activities based on marine living resources including for providing alternative sources of income. Such activities should be compatible with conservation and sustainable development policies and plans.

87. Coastal States should support the sustainability of small-scale artisanal fisheries. To this end, they should, as appropriate:

(a) Integrate small-scale artisanal fisheries development in marine and coastal planning, taking into account the interests of and, where appropriate, encouraging representation of fishermen, small-scale fishworkers, women, local communities and indigenous people;

(b) Recognize the rights of small-scale fishworkers and the special situation of indigenous people and local communities, including their rights to utilization and protection of their habitats on a sustainable basis;

(c) Develop systems for the acquisition and recording of traditional knowledge concerning marine living resources and environment and promote the incorporation of such knowledge into management systems.

88. Coastal States should ensure that, in the negotiation and implementation of international agreements on the development or conservation of marine living resources, the interests of local communities and indigenous people are taken into account, in particular their right to subsistence.

89. Coastal States, with the support, as appropriate, of international organizations should conduct analyses of the potential for aquaculture in marine and coastal areas under national jurisdiction and apply appropriate safeguards as to the introduction of new species.

90. States should prohibit dynamiting, poisoning and other comparable destructive fishing practices.

91. States should identify marine ecosystems exhibiting high levels of biodiversity and productivity and other critical habitat areas and provide necessary limitations on use in these areas, through, inter alia, designation of protected areas. Priority should be accorded, as appropriate, to:

- (a) Coral reef ecosystems;
- (b) Estuaries;
- (c) Temperate and tropical wetlands, including mangroves;
- (d) Seagrass beds;
- (e) Other spawning and nursery areas.

#### Data and information

92. States, individually or through bilateral and multilateral cooperation and with the support, as appropriate, of international organizations, whether subregional, regional, or global, should:

- (a) Promote enhanced collection and exchange of data necessary for the conservation and sustainable use of the marine living resources under national jurisdiction;
- (b) Exchange on a regular basis up-to-date data and information necessary for fisheries assessment;
- (c) Develop and share analytical and predictive tools such as stock assessment and bioeconomic models;
- (d) Establish or expand appropriate monitoring and assessment programmes;
- (e) Complete/update marine biodiversity, marine living resource and critical habitat profiles of EEZs and other areas under national jurisdiction, taking account of changes in the environment brought about by natural causes as well as human activities.

#### International and regional cooperation and coordination

93. States, through bilateral and multilateral cooperation, and with the support of relevant United Nations and other international organizations, should cooperate to:

- (a) Develop financial and technical cooperation to enhance the capacities of developing countries in small-scale and oceanic fisheries as well as coastal aquaculture and mariculture; 3/



(b) Promote the contribution of marine living resources to eliminate malnutrition and to achieve food self-sufficiency in developing countries, inter alia, by minimizing post harvest losses and managing stocks for guaranteed sustainable yields;

(c) Develop agreed criteria for the use of selective fishing gear and practices to minimize waste of catch of target species and minimize bycatch of non-target species;

(d) Promote seafood quality, including through national quality assurance systems for seafood, in order to promote access to markets, improve consumer confidence and maximize economic returns. <sup>1/2</sup>

93 bis

94. States recognize:

(a) The responsibility of the International Whaling Commission for the conservation and management of whale stocks and the regulation of whaling pursuant to the 1946 International Convention for the Regulation of Whaling;

(b) The work of the International Whaling Commission Scientific Committee in carrying out studies of large whales in particular, as well as of other cetaceans;

(c) The work of other organizations, such as the Inter-American Tropical Tuna Commission and the Agreement on Small Cetaceans in the Baltic and North Sea under the Bonn Convention, in the conservation, management and study of cetaceans and other marine mammals.

95. States should cooperate for the conservation, management and study of cetaceans.

#### Means of implementation

##### [Financing and costing]

96. The total cost to restructure the fisheries sector is estimated at up to \$6 billion per year, excluding investments needed to organize sector reconversion to reduce overcapitalization. The catalytic funding proposed to implement the above activities at the national and regional levels is on the order of \$60 million annually to accelerate development and improve management, including \$4 million to strengthen regional and international organizations.]

##### Scientific and technological means

97. States, with the support of relevant intergovernmental organizations, as appropriate, should:

(a) Provide for the transfer of environmentally sound technologies to develop fisheries, aquaculture and mariculture, particularly to developing countries;

States should, where and as appropriate, ensure adequate...  
coordination and cooperation in enclosed and semi-enclosed  
areas and further substantial research and data...

(b) Accord special attention to mechanisms for transferring resource information and improved fishing and aquaculture technologies to fishing communities at the local level;

(c) Promote the study, scientific assessment and use of appropriate traditional management systems;

(d) Consider observing, as appropriate, the FAO/ICES Code of Practice for Consideration of Transfer and Introduction of Marine and Freshwater Organisms;

(e) Promote scientific research on marine areas of particular importance for marine living resources, such as areas of high diversity, endemism and productivity and migratory stopover points.

#### Human resource development

98. States individually or through bilateral and multilateral cooperation and with the support of relevant international organizations, whether subregional, regional or global, as appropriate, should encourage and provide support for developing countries, inter alia, to:

(a) Expand multidisciplinary education, training and research on marine living resources, particularly in social and economic sciences;

(b) Create training opportunities at national and regional levels to support artisanal including subsistence fisheries, to develop small-scale use of marine living resources and to encourage equitable participation of local communities, small-scale fisherworkers, women and indigenous people;

(c) Introduce topics relating to the importance of marine living resources in educational curricula at all levels.

#### Capacity-building

99. Coastal States, with the support of relevant subregional, regional and global agencies, where appropriate, should:

(a) Develop research capacities for assessment of marine living resources populations and monitoring;

(b) Provide support to local fishing communities, in particular those which rely on fishing for subsistence, indigenous people, and women, including, as appropriate, the technical and financial assistance to organize, maintain, exchange and improve traditional knowledge of marine living resources and fishing techniques, and upgrade knowledge on marine ecosystems;

(c) Establish sustainable aquaculture development strategies, including environmental management in support of rural fish farming communities;

(d) Develop and strengthen, where the need may arise, institutions capable of implementing the objectives and activities related to the conservation and management of marine living resources.

100. Special support, including cooperation among States, will be needed to enhance the capacities of developing countries in the areas of data and information, scientific and technological means and human resource development in order to participate effectively in the conservation and sustainable use of marine living resources under national jurisdiction.

E. Addressing critical uncertainties for the management of marine environment and climate change

Basis for action

101. The marine environment is vulnerable and sensitive to climate and atmospheric changes. Rational use and development of coastal areas, all seas and marine resources, as well as conservation of marine environment, requires the ability to determine the present state of these systems and to predict future conditions. The high degree of uncertainty in present information inhibits effective management and limits the ability to make predictions and assess environmental change. Systematic collection of data on marine environmental parameters will be needed to apply integrated management approaches and to predict effects of global climate change and of atmospheric phenomena, such as ozone depletion on living marine resources and the marine environment. In order to determine the role of the oceans and all seas in driving global systems and to predict natural and man-induced changes in marine and coastal environments, the mechanisms to collect, synthesize and disseminate information from research and systematic observation activities need to be restructured and reinforced considerably.

102. There are many uncertainties about climate change and particularly sealevel rise. Small increases in sealevel have the potential of causing significant damage to small islands and low-lying coasts. Response strategies should be based on sound data. A long-term cooperative research commitment is needed to provide data required for global climate models and to reduce uncertainty. Meanwhile, precautionary measures should be undertaken to diminish the risks and effects, particularly on small islands and on low-lying and coastal areas of the world.

103. Increased ultraviolet radiation derived from ozone depletion has been reported in some areas of the world. An assessment of its effects in the marine environment is needed to reduce uncertainty and to provide a basis for action.

Objectives

104. States, in accordance with provisions of the United Nations Convention on the Law of the Sea on marine scientific research, commit themselves to improve the understanding of the marine environment and its role on global processes. To this end, it is necessary to:

(a) Promote scientific research on and systematic observation and monitoring of the marine environment within the limits of national jurisdiction and high seas, including interactions with atmospheric phenomena such as ozone depletion;

(b) Promote exchange of data and information resulting from scientific research and systematic observation and from traditional ecological knowledge and ensure its availability to policy makers and the public at the national level;

(c) Cooperate with a view to the development of standard inter-calibrated procedures, measuring techniques, data storage and management capabilities for scientific research on and systematic observation of the marine environment.

Activities

Management related

105. States should consider, inter alia:

(a) Coordinating national and regional observation programmes for coastal and near-shore phenomena related to climate change and for research parameters essential for marine and coastal management in all regions;

(b) Providing improved forecasts of marine conditions for the safety of inhabitants of coastal areas and for the efficiency of maritime operations;

(c) Cooperating with a view to adopt special measures to cope with and adapt to potential climate change and sealevel rise, including the development of globally accepted methodologies for coastal vulnerability assessment, modelling and response strategies particularly for priority areas, such as small islands, low-lying and critical coastal areas;

(d) Identifying ongoing and planned programmes of systematic observation of the marine environment, with a view to integrating activities and establishing priorities to address critical uncertainties for oceans and all seas;

(e) Initiating a programme of research to determine the marine biological effects of increased levels of ultraviolet rays due to the depletion of the stratospheric ozone layer and to evaluate the possible effects.

106. Recognizing the important role that oceans and all seas play in attenuating potential climate change, IOC and other relevant competent United Nations agencies with the support of countries having the resources and expertise, should carry out analysis, assessments and systematic observation of the role of oceans as a carbon sink.

Data and information

107. States should consider, inter alia:

(a) Increasing international cooperation particularly with a view to strengthening national scientific and technological capabilities for analysing, assessing and predicting global climate and environmental change;

*See attached for recording*  
(b) Supporting the role of the IOC in cooperation with WMO, UNEP and other international organizations in the collection, analysis and distribution of data and information from the oceans and all seas, including as *(GCCS)* appropriate, through the proposed *(TEMA)* Global Ozone Observing System (GO<sub>3</sub>OS), giving special attention to the need for IOC to develop fully the strategy for providing training and technical assistance for developing countries through its Training, Education and Mutual Assistance programme;

(c) Creating national ~~accessible~~ multisectoral information bases, covering the results of research and systematic observation programmes;

(d) Linking these databases to existing data and information services and mechanisms such as the World Weather Watch and Earthwatch;

(e) Cooperating with the view to the exchange of data and information and its storage and archiving through the world and regional data centres;

(f) Cooperating to ensure full participation of developing countries, in particular, in any international scheme under the organs and organizations of the United Nations system for the collection, analysis and use of data and information.

*adding* INTERNATIONAL AND REGIONAL COOPERATION AND COORDINATION

108. States should consider bilaterally and multilaterally and in cooperation with international organizations whether subregional, regional, interregional or global, where appropriate:

(a) Providing technical cooperation in developing the capacity of coastal and island States for marine research and systematic observation, and for using its results;

(b) Strengthening existing national institutions and creating, where necessary, international analysis and prediction mechanisms in order to prepare and exchange regional and global oceanographic analyses and forecasts and to provide facilities for international research and training at national, regional and subregional levels, where applicable.

107. (b) Supporting the role of the IOC to further develop the proposed Global Ocean Observing System (GOOS) in cooperation with WMO, UNEP and other international organizations in the collection, analysis and other international organizations in the collection, analysis and distribution of data and information from the oceans and all seas, and further to develop fully a strategy for providing training and technical assistance particularly for developing countries, through its Training, Education, and Mutual Assistance Programme (TEMA).

109. In recognition of the value of Antarctica as an area for the conduct of scientific research, in particular essential to understanding the global environment, States carrying out such research activities in Antarctica should, as provided for in article III of the Antarctic Treaty, continue to:

(a) Ensure that data and information resulting from such research is freely available to the international community; and

(b) Enhance access of the international scientific community and specialized agencies of the United Nations to such data and information including the encouragement of periodic seminars and symposia.

110. States should strengthen high-level inter-agency, subregional, regional and global coordination, as appropriate, and review mechanisms to develop and integrate systematic observation networks. This would include:

(a) Review of existing regional and global databases;

(b) Mechanisms to develop comparable and compatible techniques, validate methodologies and measurements, organize regular scientific reviews, options for corrective measures, agree on formats for presentation and storage, and communicate the information gathered to potential users;

(c) Systematic observation of coastal habitats and sealevel changes, inventories of marine pollution sources and reviews of fisheries statistics;

(d) Organization of periodic assessments of ocean and all seas and coastal area status and trends.

111. International cooperation through relevant organizations within the United Nations system should support countries to develop and integrate regional systematic long-term observation programmes, when applicable, into the Regional Seas Programmes in a coordinated fashion to implement, where appropriate, subregional, regional and global observing systems based on the principle of exchange of data. One aim should be the predicting of the effects of climate-related emergencies on existing coastal physical and socio-economic infrastructure.

112. Based on the results of research on the effects of the additional ultraviolet radiation reaching the Earth's surface, in the fields of human health, agriculture and marine environment, States and international organizations should consider taking appropriate remedial measures.

*2*  
*receding*  
- Means of Implementation  
- Financing and Costing  
[113. The estimate of costs to ensure participation in the implementation of the recommendations in this section needs to be reconsidered in the light of conclusions on financial matters.]

114. ~~The~~ <sup>ed</sup> Developed countries should provide the financing for the <sup>further</sup> development and implementation of the ~~GOOS~~ <sup>GCCS</sup> system.

Heading - *Scientific and Technological Means*

115. To address critical uncertainties through systematic coastal and marine observations and research, coastal States should cooperate in the development of procedures which allow for comparable analysis and soundness of data. They should also cooperate on a subregional and regional basis, through existing programmes where applicable, share infrastructure and expensive and sophisticated equipment, develop quality assurance procedures and develop human resources jointly. Special attention should be given to transfer of scientific and technological knowledge and means to support States particularly developing countries in the development of endogenous capabilities.

116. International organizations should support, when requested, coastal countries implement research projects on the effects of additional ultraviolet radiation.

Heading - *Human Resource Development*

117. States, individually or through bilateral and multilateral cooperation with the support, as appropriate, of <sup>international organizations</sup> subregional, regional <sup>and</sup> global organizations, should develop and implement comprehensive programmes, particularly in developing countries for a broad and coherent approach to meeting their core human resource needs in the marine sciences.

Capacity-building

118. States should strengthen or establish as necessary, national scientific and technological oceanographic commissions or equivalent bodies, to develop, support and coordinate marine science activities and work closely with international organizations.

119. States should use existing subregional and regional mechanisms, where applicable, to develop knowledge of the marine environment, exchange information, organize systematic observations and assessments, and make most effective use of scientists, facilities and equipment. They should also cooperate in the promotion of endogenous research capabilities in developing countries.

F. Strengthening international, including regional, cooperation and coordination

Basis for action

120. It is recognized that the role of international cooperation is to support and supplement national efforts. Implementation of strategies and activities under the programme areas relative to marine and coastal areas and seas require effective institutional arrangements at national, regional, subregional and global levels, as appropriate. There are numerous national and international including regional institutions, both within and outside the United Nations system, with competence in marine issues, and there is a need to improve coordination and strengthen links among them. It is also important to ensure that an integrated and multisectoral approach to marine issues is pursued at all levels.



### Objectives

121. States commit themselves, in accordance with their policies, priorities and resources, to promote institutional arrangements necessary to support the implementation of the programme areas in this chapter. To this end, it is necessary, as appropriate, to:

(a) Integrate relevant sectoral activities addressing environment and development in marine and coastal areas at national, subregional, regional and global levels, as appropriate;

(b) Promote effective information exchange and, where appropriate, institutional linkages between bilateral and multilateral national, regional, subregional and interregional institutions dealing with environment and development in marine and coastal areas;

(c) Promote within the United Nations system, regular intergovernmental review and consideration of environment and development issues with respect to marine and coastal areas;

(d) Promote the effective operation of coordinating mechanisms for the components of the United Nations system dealing with issues of environment and development in marine and coastal areas, as also links with relevant international development bodies.

### Activities

#### Management-related

##### (a) Global

122. The General Assembly should provide for regular consideration, within the United Nations system, at the intergovernmental level of general marine and coastal issues, including environment and development matters, <sup>7/</sup> and should request the Secretary-General and Executive Heads of United Nations agencies and organizations to:

(a) Strengthen coordination and develop improved arrangements among the relevant United Nations organizations with major marine and coastal responsibilities, including their regional and subregional components;

(b) Strengthen coordination between those organizations and other United Nations organizations, institutions and specialized agencies dealing with development, trade and other related economic issues, as appropriate;

(c) Improve representation of United Nations agencies dealing with the marine environment in United Nations system-wide coordination efforts;

(d) Promote where necessary, greater collaboration between the United Nations agencies and regional and subregional coastal and marine programmes;

(e) Develop a centralized system to provide for information on legislation and advice on implementation of legal agreements on marine environmental and development issues.

[123. Settlement of disputes, such as on trade and environment, should be dealt with in appropriate bilateral, regional and international forums, e.g. GATT, in accordance with established international rules and dispute settlement agreements as well as with multilateral standards to be agreed upon, giving due consideration to concerns for sustainable development. Pending enactment of such standards, States should refrain from taking unilateral non-tariff measures to protect a given marine resource.]

See  
attached  
Corr

(b) Regional

Heading - Subregional and Regional  
124. States should consider, as appropriate:

(a) Strengthening, and extending where necessary, intergovernmental regional cooperation, the Regional Seas Programmes of UNEP, regional and subregional fisheries organizations and regional commissions;

(b) Introduce, where necessary, coordination among relevant United Nations and other multilateral organizations at the regional and subregional levels including consideration of co-location of their staff;

(c) Arrange for periodic intraregional consultations;

(d) Facilitate access to and use of expertise and technology through relevant national bodies to regional and subregional centres and networks, such as the Regional Centres for Marine Technology.

Data and information

125. States should, where appropriate:

(a) Promote exchange of information on marine and coastal issues;

(b) Strengthen the capacity of international organizations to handle information and support the development of national, regional and subregional data and information systems, where appropriate. This could also include networks linking countries with comparable environmental problems;

(c) Further develop existing international mechanisms such as Earthwatch and GESAMP.

Means of implementation

Financing and cost evaluation

[126. The proposed cost for strengthening regional cooperation is \$12 million per year in additional support for international organizations and regional

Paragraph 123

Should be replaced by the following:

123. States recognize that environmental policies should deal with the root causes of environmental degradation, thus preventing environmental measures from resulting in unnecessary restrictions to trade. Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing international environmental problems should, as far as possible, be based on an international consensus. Domestic measures targeted to achieve certain environmental objectives may need trade measures to render them effective. Should trade policy measures be found necessary for the enforcement of environmental policies, certain principles and rules should apply. These could include, inter alia: the principle of non-discrimination; the principle that the trade measure chosen should be the least trade-restrictive necessary to achieve the objectives; an obligation to ensure transparency in the use of trade measures related to the environment and to provide adequate notification of national regulations; and the need to give consideration to the special conditions and developmental requirements of developing countries as they move towards internationally agreed environmental objectives.

coordinating units, and at least \$25 million annually in further direct support to activities at the regional level. Improving international coordination and strengthening the global role of the United Nations system to implement Agenda 21 in oceans and coastal areas would cost a proposed \$12 million per year, which would approximately double present expenditures and would catalyse and coordinate much larger national expenditures.]

Scientific and technological means, human resource development and capacity-building

127. The means of implementation outlined in the other programme areas on marine and coastal issues, under the sections on Scientific and technological means, human resource development and capacity-building are entirely relevant for this programme area as well. Additionally, States should, through international cooperation, develop a comprehensive programme for meeting the core human resource needs in marine sciences at all levels.

G. Sustainable development of small islands

Basis for action

128. Small island developing States, and islands supporting small communities are a special case both for environment and development. They are ecologically fragile and vulnerable. Their small size, limited resources, geographic dispersion and isolation from markets, disadvantage them economically and prevent economies of scale. For small island developing States the ocean and coastal environment is of strategic importance and constitutes a valuable development resource.

129. Their geographic isolation has resulted in their habitation of a comparatively large number of unique species of flora and fauna, giving them a very high share of global biodiversity. They also have rich and diverse cultures with special adaptations to island environments and knowledge of the sound management of island resources.

130. Small island developing States have all the environmental problems and challenges of the coastal zone concentrated in a limited land area. They are considered extremely vulnerable to global warming and sealevel rise with certain small low-lying islands facing the increasing threat of the loss of their entire national territories. Most tropical islands are also now experiencing the more immediate impacts of increasing frequency of cyclones, storms and hurricanes associated with climate change. These are causing major set-backs to their socio-economic development.

131. Because small island development options are limited, there are special challenges to planning for and implementing sustainable development. Small island developing ~~countries~~ will be constrained in meeting these challenges without the cooperation and assistance of the international community.

States

heading — Objectives

132. States commit themselves to addressing the problems of sustainable development of small-island developing States. To this end it is necessary:

(a) To adopt and implement plans and programmes to support the sustainable development and utilization of their marine and coastal resources, including meeting essential human needs, maintaining biodiversity and improving the quality of life for island people;

(b) To adopt measures which will enable <sup>small</sup> island <sup>developing</sup> States to cope effectively, creatively and sustainably with environmental change and to mitigate impacts and reduce the threats posed to marine and coastal resources.

Activities

Management-related

133. Small island developing States, with the assistance as appropriate of the international community and on the basis of existing work of national and international organizations, should:

(a) Study the special environmental and developmental characteristics of small islands including an environmental profile and inventory of their natural resources, critical marine habitats and biodiversity;

(b) Develop techniques for determining and monitoring the carrying capacity of small islands under different development assumptions and resource constraints;

(c) Prepare medium- and long-term plans for sustainable development that emphasize multiple use of resources, integrate environmental considerations with economic and sectoral planning and policies, and which define measures for maintaining cultural and biological diversity, conserve endangered species and critical marine habitats;

(d) Adapt coastal area management techniques, such as planning, siting, environmental impact assessments, using GIS, suitable to the special characteristics of small islands, taking into account the traditional and cultural values of indigenous people of island countries;

(e) Review the existing institutional arrangements and identify and undertake appropriate institutional reforms essential to the effective implementation of sustainable development plans, including intersectoral coordination and community participation in the planning process;

(f) Implement sustainable development plans, including the review and modification of existing unsustainable policies and practices;

(g) Based on precautionary and anticipatory approaches, design and implement rational response strategies to address the environmental, social and economic impacts of climate change and sealevel rise, and prepare appropriate contingency plans;

(h) Promote environmentally sound technology for sustainable development within small island <sup>developing</sup> States and identify technologies which should be excluded because of their threats to essential island ecosystems.

Data and information

134. Additional information on the geographic, environmental, cultural and socio-economic characteristics of islands should be compiled and assessed to assist in the planning process. Existing island databases should be expanded and geographic information systems developed and adapted to suit the special characteristics of islands.

Heading - International and Regional Cooperation and Coordination

135. Small island developing States, with the support, as appropriate, of ~~regional~~ international organizations, whether subregional, <sup>regional</sup> or global, should develop and strengthen inter-island, regional and interregional cooperation and information exchange, including periodic regional and global meetings on sustainable development of small island developing States with the first Global Conference on the sustainable development of small island developing States to be held in 1993.

136. International organizations, whether subregional, regional or global, must recognize the special development requirements of small island developing States and give adequate priority in the provision of assistance, particularly with respect to the development and implementation of sustainable development plans.

Means of implementation

Financing and cost evaluation

[137. Technical cooperation costs to implement these activities amount to \$7 million per year. A programme on integrated planning for sustainable development of islands will cost about \$130 million per year, to be financed by private and public sources. About \$40 million could come from the international community. Since many small islands will never develop an adequate economic or population base to provide all of the services necessary for a reasonable quality of life, some external support will frequently be required on a continuing basis. In addition, the need to maintain the island share of global biodiversity will further limit development options and should be supported by the international community with at least \$3 million per year.]

Scientific and technical means

138. Centres for the development and diffusion of scientific information, <sup>developing</sup> advice on technical means and technologies appropriate to small island States, especially with reference to the management of the coastal zone, EEZ and marine resources should be established or strengthened as appropriate on a regional basis.

Human resource development

139. Since populations of small island developing States cannot maintain all necessary specializations, training for integrated coastal management and development should aim to produce cadres of managers or scientists, engineers and coastal planners able to integrate the many factors which need to be considered in integrated coastal management. Resource users should be prepared to execute both management and protection functions and to apply the polluter pays principle and support the training of their personnel. Educational systems should be modified to meet these needs and special training programmes developed in integrated island management and development. Local planning should be integrated in educational curricula of all levels and public awareness campaigns developed with the assistance of NGOs and indigenous coastal population.

Capacity-building

140. The total capacity of small island developing States will always be limited. Existing capacity must therefore be restructured to efficiently meet the immediate needs for sustainable development and integrated management. At the same time adequate and appropriate assistance from the international community must be directed at strengthening the full range of human resources needed on a continuous basis to implement sustainable development plans.

141. New technologies which can increase the output and range of capability of the limited human resources should be employed to increase the capacity of very small populations to meet their needs. The development and application of traditional knowledge to improve the capacity of countries to implement sustainable development should be fostered.

Notes

1/ References to the United Nations Convention on the Law of the Sea in this chapter of Agenda 21 do not prejudice the position of any State with respect to signature, ratification of or accession to the Convention.

2/ ~~Where there is uncertainty on sovereignty or no agreement over delimitation,~~ Nothing in the programme areas of this chapter should be interpreted as prejudicing the rights of the States involved in a dispute of sovereignty or in the delimitation of the maritime areas concerned.

3/ This paragraph <sup>subparagraph</sup> will be re-examined in light of discussions on financial issues in plenary.

4/ ~~The text in this~~ <sup>paragraph</sup> subparagraph will be ~~re-addressed following~~ <sup>re-examined in light of discussions</sup> transfer ~~of technology discussions~~ in plenary.

5/ Location of this paragraph, if any, is still under consideration.

Notes (continued)

6/ The group recommended that this paragraph be moved to the chapter on protection of the atmosphere.

7/ This text may need to be reviewed in the light of the outcome of discussions on general follow-up to the Conference.

-----





General Assembly

Distr.  
GENERAL

A/CONF.151/PC/113  
5 March 1992  
ENGLISH  
ORIGINAL: ENGLISH/FRENCH/  
SPANISH

PREPARATORY COMMITTEE FOR THE  
UNITED NATIONS CONFERENCE ON  
ENVIRONMENT AND DEVELOPMENT

Fourth session

New York, 2 March-3 April 1992

Plenary

Agenda item 2 (b)

Working Group II

Agenda item 2

PREPARATIONS FOR THE UNITED NATIONS CONFERENCE ON ENVIRONMENT  
AND DEVELOPMENT ON THE BASIS OF GENERAL ASSEMBLY RESOLUTION  
44/228 AND TAKING INTO ACCOUNT OTHER RELEVANT ASSEMBLY  
RESOLUTIONS: RECENT ACTIONS OF INTERGOVERNMENTAL AND OTHER  
BODIES OF RELEVANCE TO THE PREPARATORY PROCESS

PROTECTION OF THE OCEANS AND ALL KINDS OF SEAS, INCLUDING  
ENCLOSED AND SEMI-ENCLOSED SEAS, AND COASTAL AREAS AND  
THE PROTECTION, RATIONAL USE AND DEVELOPMENT OF THEIR  
LIVING RESOURCES

Note by the Secretary-General of the Conference

1. In paragraph 3 of its decision 3/21, the Preparatory Committee requested the Secretary-General of the Conference to submit to it at its fourth session, the report on the results of the intergovernmental meeting of experts on the degradation of the marine environment from land-based sources of pollution and activities in coastal areas to be convened by the United Nations Environment Programme and other relevant United Nations organizations. The meeting was held at Nairobi, 9-13 December 1991.

2. The Preparatory Committee invited the intergovernmental meeting of experts to consider the elements and policy considerations as included in the annex to decision 3/21, taking fully into account General Assembly resolution 44/228.

A/CONF.151/PC/113

English

Page 2

3. The report of the meeting is annexed to the present note. Particular attention should be given to appendix I of the report which makes recommendations relative to Programme Area B on marine environmental protection of the revised options for agenda 21 on oceans as contained in document A/CONF.151/PC/100/Add.21.

ANNEX

Report of the meeting of government designated experts  
to formulate a draft strategy for the reduction of the  
degradation of the marine environment from land-based  
sources of pollution and activities in coastal areas,  
held at Nairobi from 9 to 13 December 1991\*

---

\* Originally issued under the symbol UNEP(OCA)/WG.14/4. The annex is circulated in the languages of submission only.

## I. INTRODUCTION

1. By its decision 16/26A, the Governing Council of the United Nations Environment Programme requested the Executive Director to convene a meeting of Government designated experts to formulate the draft strategy, including a targeted and costed programme of action, for reducing the degradation of the marine environment from land-based sources of pollution and activities in coastal areas, drawing on policy guidance from the third session of the Preparatory Conference for the United Nations Conference on Environment and Development (UNCED). It further requested that the outcome of that meeting should be reported through the Secretary-General of UNCED to the Preparatory Committee at its fourth session.

2. To that end, the Meeting had at its disposal the following documentation: the Strategy for the Reduction of the Degradation of the Marine Environment from Land-based Sources (UNEP(OCA)/WG.14/3 and Add.1); the report of an informal consultation of experts (UNEP(OCA)/WG.14/INF.3); the Montreal Guidelines (UNEP(OCA)/WG.14/INF.4), together with an analysis of the implementation of those Guidelines (UNEP(OCA)/WG.14/INF.5); operative paragraphs of selected decisions of the UNEP Governing Council and the UNCED Preparatory Committee (UNEP(OCA)/WG.14/INF.6); a summary of replies to the Executive Director's letter of July 1991 requesting information on Governments' plans for reducing the degradation of the marine environment caused by pollution from land-based sources (UNEP(OCA)/WG.14/INF.7); an account of two case-studies in the Mediterranean region (UNEP(OCA)/WG.14/INF.8, 9 and 10) and an UNCED Preparatory Committee document on the protection of the oceans, all kinds of seas including enclosed and semi-enclosed seas, coastal areas and the protection, rational use and development of their living resources (A/CONF.151/PC/WG.11/L.18).

## II. OPENING OF THE MEETING

3. Mr. Evteev, Assistant Executive Director of UNEP, opened the Meeting. Having welcomed the participants on behalf of the Executive Director, he clarified the situation vis-à-vis Agenda 21, referring to decision 16/26A of the UNEP Governing Council. The Meeting was expected to draft a strategy and an action plan as a contribution to the UNCED preparatory process. It was not, of course, required to draft any actual part of Agenda 21, which was the responsibility of the UNCED secretariat. The report of the Meeting would be submitted to the Secretary General of UNCED by the Executive Director of UNEP. He wished the participants every success in their work.

## III. ORGANIZATIONAL MATTERS

A. Election of Officers

4. The Meeting elected the following officers by acclamation:

Chairman: Mr. N. Quinn (Australia)

Vice-Chairman: Mr. H. Shihab (Maldives)

Mr. T. Balkas (Turkey)

Rapporteur: Mr. O. Linden (Sweden)

B. Rules of Procedure

5. The Chairman pointed out that, as mentioned in paragraph 7 of the Annotated Agenda (UNEP(OCA)/WG.14/2), the rules of procedure of the Governing Council of UNEP would apply, mutatis mutandis, to the Meeting.

C. Organization of Work

6. The Chairman said that the Meeting would work in Plenary session, holding two meetings a day. Ad hoc working groups - without interpretation - might be established as required.

D. Adoption of the Agenda

7. The title of agenda item 4 was amended to reflect the wording used by UNCED in its appropriate chapter of Agenda 21. The title of agenda item 5 was also amended, the words "Review of", being replaced by the words "Elements for". A proposal that agenda items 4 and 5 be merged into a single item was rejected. The provisional agenda as amended was then adopted. The agenda is to be found in Annex II to this report.

E. Attendance

8. The Meeting was attended by the representatives of 52 countries. It was also attended by observers from one country, 6 United Nations bodies, specialized agencies and other international organizations, and from two non-governmental organizations. The list of participants is to be found in Annex III to this report.

#### IV. SUBSTANTIVE MATTERS

##### A. UNCED update of agenda 21

9. Ms. Alicia Barcena, Principal Officer on Oceans from UNCED secretariat, described the preparatory process for the UNCED documentation and the ways in which the results of the current Meeting could be considered in that process. She suggested that the Meeting could produce both a concise document in a format suitable for integration into Agenda 21, and a full report with the appropriate background and supporting documentation.

10. Several representatives noted the importance of relating the work of the Meeting to the UNCED preparatory process with particular reference to consideration by the Preparatory Committee, at its fourth session.

##### Elements for the draft strategy

11. The Chairman said that the concordance prepared by the small technical working group would help the Meeting considerably in its work. He noted that the Agenda 21 format divided the subject into four sections: Basis for Action, Objectives, Activities and Means of Implementation. That format would be followed in the draft strategy, but the Meeting would use as its basic reference document the strategy prepared by the UNEP secretariat (UNEP(OCA)/WG.14/3 and Add.1), grouping the elements it approved in the UNCED structure.

12. After a lengthy discussion, the Meeting decided to establish an open-ended drafting group, to be presided over by its Chairman, and two working groups, co-ordinated by its two Vice-Chairmen, the first to examine the principles relevant to the strategy and the second to consider the issue of costing action programmes. A small group was also set up to revise the two tables continued in the strategy prepared by the UNEP secretariat (UNEP(OCA)/WG.14/3 and Add.1).

13. The Meeting approved, as amended, the texts produced by the working groups and the recommendations for submission to the Preparatory Committee of UNCED prepared by the open-ended drafting group. It agreed to attach those texts to the report as Annex I.

#### V. CONCLUSIONS AND RECOMMENDATIONS

14. The Meeting decided to request the Executive Director of UNEP to transmit the text of the draft strategy it had prepared, as it appeared in Annex I to the report, to the Secretary-General of UNCED to be submitted to the Preparatory Committee of UNCED at its fourth session, for use in connection with Agenda 21.

#### VI. ADOPTION OF THE REPORT

15. The Meeting adopted its report.

#### VII. CLOSURE OF THE MEETING

16. Following an exchange of courtesies, the Chairman declared the Meeting closed.

Annex I

Draft strategy for the reduction of the degradation  
of the marine environment from land-based sources of pollution  
and activities in coastal areas

The Meeting recognized that the draft strategy prepared by the UNEP secretariat (UNEP(OCA)/WG.14/3 and Add.1) could be given only a preliminary review but agreed that it was a useful basis for future work.

In its preliminary review, the Meeting agreed that the strategy should involve a commitment by all States to prevent, reduce and control degradation of the marine environment from land-based sources of pollution and activities, so as to preserve its life support and productive capacities, and the principles, measures and approaches essential for meeting that commitment. The Meeting agreed that the principles, approaches and measures listed in Appendix 3, which had been taken from the draft strategy prepared for the Meeting (UNEP(OCA)/WG.14/3), were of particular importance.

The experts recognized the need for national, regional and global elements of the strategy.

While agreeing that particular problems in different countries and regions might require application of the strategy elements in different ways, the experts considered that complementary national, regional and global elements would include the following:

National

Adoption of a national action plan.

Adoption and enforcement of implementing legislation.

Allocation of the necessary resources.

Implementation of reduction measures including regulations and economic instruments.

Implementation of environmental impact assessment processes.

Collection and assessment of data and information from inventories, research, monitoring and evaluation of control measures.

Participation by all concerned groups in the planning and implementation process.

Regional

Adoption by States of regional action plans.

Establishment or strengthening of regional management frameworks including intergovernmental coordinating and consultative mechanisms, and assignment of institutional responsibilities for implementation.

Adoption of appropriate regional legal agreements or protocols.

Agreement on standards and goals for both emissions and environmental quality.

Development of appropriate regional centres of expertise for research, training and capacity building in support of national efforts.

Creation of regional mechanisms for information exchange, assessment, coordinated research and monitoring.

#### Global

Political commitment by all States at the highest possible level, possibly through a declaration at UNCED or by adoption as part of Agenda 21.

Consideration of a global strategy including objectives and a timetable for implementation, and including global mechanisms such as a legal agreement.

Agreement on basic principles based on the Montreal Guidelines.

Assignment of institutional responsibility for the implementation of the global strategy, including the coordination and stimulation of regional and national action.

Creation of facilities or mechanisms for financial support to the regional and national levels and for technology transfer.

Strengthening of mechanisms for information and data exchange, analysis and evaluation, and for supporting measures such as standard methods for systematic observation and quality control.

The Meeting agreed upon recommendations for inclusion in Agenda 21 which are set forth in Appendix 1.

Three additional matters in relation to the draft strategy were discussed. They were the tables on identifying priority contaminants, the annex on principles, approaches and measures and costing methodologies. The working group which examined the tables suggested the revised tables 1 and 2 in Appendix 2. The Meeting agreed with those revised tables.

With respect to Annex I of the draft strategy prepared by the UNEP secretariat, the Meeting agreed that the Montreal Guidelines constituted a good basis for future work on principles, approaches and measures. Meanwhile, a working group developed the indicative list of principles, approaches and measures in Appendix 3.

The Meeting accepted the working group's conclusion that, at the current stage, a detailed costing of either regional action programmes or of a global programme could not be made, due to lack of information. It was agreed that the working group's report should be made available to UNCED, so that the methodology would then be available as one of the mechanisms to assist in developing regional priorities for action.



There were many detailed activities which the strategy should include. Governments would no doubt have many before them, including as proposals for Agenda 21. The experts agreed that those would need to be elaborated and assigned priorities as national, regional and global strategies were further developed, for example in the proposed intergovernmental meeting after the 1992 United Nations Conference on the Environment and Development (UNCED).

The majority of the delegations agreed that Governments should review model codes-of-conduct, aimed at private sector entities considered by the United Nations Centre for Transnational Corporations (CTC) and the Economic Commission for Europe (ECE) and the International Chamber of Commerce, that provided ways and means of encouraging the prevention, reduction and control of marine degradation, including pollution by land-based sources, so as to lead to behaviour by private sector entities abroad as if they were in their home countries.

The Meeting was very conscious of the linkages between the marine degradation issue and other parts of Agenda 21, including, in particular:

Health,

Human settlements,

Freshwater resources,

Toxic chemicals,

Hazardous wastes,

Solid wastes,

Atmosphere, and the role of major groups, such as non-governmental organizations, trade unions and the business sector.

The Meeting agreed that the United Nations Conference on the Environment and Development should include clear recognition in Agenda 21 of the role of non-governmental organizations in developing and implementing environmental policies and programmes included in Agenda 21.

In view of the significance of costing issues, the Meeting asked a specialized working group to examine the question. Its report is to be found in Appendix 4. The Meeting agreed that the attention of UNCED should be drawn to paragraphs 7 and 8 of that report on the methodology of costing and determining priorities.

Annex I

Appendix 1

Recommendations of the intergovernmental meeting  
of experts on land-based sources of marine pollution

The Meeting of experts recommends that the following points be included in Agenda 21 to ensure that it incorporates a strategy to reduce degradation of the marine environment from land-based sources and activities in coastal areas:

Objectives:

States, in accordance with the relevant rights and obligations of the United Nations Convention on the Law of the Sea, commit themselves, according to their policies, priorities and resources, to prevent, reduce and control degradation of the marine environment from land-based sources of pollution and activities in coastal areas so as to preserve its life support and productive capacities. In carrying out this commitment, States agree to:

- (a) Reduce as far as practicable, including from existing sources, the risk that human activities will cause irreversible damage to or long-term adverse effects upon, the marine environment;
- (b) Ensure prior assessment of activities which may have potential significant adverse environmental impacts upon the marine environment, based on adequate information and data;
- (c) Develop and implement integrated programmes for understanding and managing the coastal zone, including coastal ecosystems, and associated watersheds. These programmes should cover restoration of environmental quality degraded by land-based pollution and activities in coastal areas;
- (d) Integrate protection of the marine environment into overall environmental, social and economic development policies;
- (e) Develop economic incentives to limit industrial and agricultural practices that produce emissions, residues, or other by-products that contribute to the degradation of the marine environment; and
- (f) Adopt policies consistent with internalization of environmental costs, such as the polluter pays principle, and with an anticipated and precautionary approach.

States agree that the provision<sup>1</sup> of additional financial resources, through appropriate international mechanisms, as well as access to cleaner technologies and relevant research, would be necessary to support action by developing countries to implement this commitment.

States further agree to elaborate a programme of action by the end of 1994 to implement this commitment. This programme of action should:

- (a) Identify means of strengthening and extending regional cooperation;
- (b) Identify elements that require cooperation at the global level;
- (c) Include mechanisms for cooperation among States to provide advice and assistance, upon request, to States on the elaboration, adoption, development and implementation of legislation and standards; and
- (d) Provide guidance and technologies to deal with the major types of pollution of the marine environment from land-based sources, according to the best scientific evidence.

#### Activities:

States, acting bilaterally, multilaterally, and within the framework of international organizations, should undertake the following steps in development and implementation of the programme of action:

- (a) Adopt the programme of action at an intergovernmental meeting to be convened by UNEP, in cooperation with other relevant scientific, technical and financial organizations, after the United Nations Conference on the Environment and Development in June 1992;
- (b) Assess the effectiveness of existing regional agreements and ensure that existing regional agreements and action plans relating to protection of the marine environment are consistent with the programme of action; and
- (c) Initiate and promote the development of regional agreements, action plans and protocols in those regions where there is a need to adopt such instruments, as soon as possible after the proposed intergovernmental meeting.

In Elaborating the programme of action, States should:

- (a) Build upon the Montreal Guidelines for the Protection of the Marine Environment from Land-Based Sources, updating and strengthening them as necessary; and

---

<sup>1</sup> Many delegations insisted that the following text be included: "the transfer of technology should be done on preferential and non-commercial terms and new and additional funds should be provided, in particular to developing countries, in support of their action to implement the commitment", but there was absence of consensus. Therefore, further discussion on this issue was deferred for the fourth session of the Preparatory Committee of UNCED. It was recognized that the issue could not be resolved until negotiations on financial issues in UNCED had been completed.

(b) Draw upon the reports of the intergovernmental meetings of experts held in Halifax and Nairobi in May and December 1991 respectively.

Furthermore, States should ensure that the programme of action includes, inter alia, the following specific elements:

- o Establishment of a global inventory and database providing information on the sources, types, amounts, and effects of pollutants reaching the marine environment from land-based sources and activities in coastal areas;
- o Establishment of a clearing house on marine pollution control, information including processes and technologies to address marine pollution control and to support their transfer to developing countries and other countries with demonstrated needs;
- o Provision of policy guidance to relevant global funding mechanisms;
- o Establishment of financing arrangements through an existing multilateral funding regime or as a new fund, which could include exploration of the appropriateness of a revolving fund, to finance nationally adequate applications of sewage treatment technologies; and carry out other measures to meet the objectives of the programme of action;
- o Guidelines for country reporting on the implementation of the programme of action;
- o Necessary institutional arrangements; and
- o Establishment of specific programmes to assure special attention to toxic, bio-accumulative, hazardous, or persistent compounds.

Annex I  
Appendix 2  
Tables

Table 1. LIST OF MAJOR POLLUTION ISSUES AND PRIORITY SUBSTANCES  
IN THE COASTAL MARINE ENVIRONMENT

The table below lists the major pollution issues and priority substances from land-based sources which constitute the greatest threat to the marine environment. Assignments under the heading "Status of science and management" relate to routine operations; they do not relate to catastrophic accidents.

Substances	Status of science and management targets	Effects
Sewage	Science adequate Management deficient	Human health Pathogens Eutrophication
Nutrients	Science limited Conservative management possible	Eutrophication Potential harmful algal blooms
Synthetic organic compounds	Science limited Conservative management possible	Human health Animal health
Sediment	Science limited Conservative management possible	Destruction of amenities (habitats/organisms) Decreased biological productivity
Litter	Science adequate Management deficient	Animal health Destruction of amenities
Metals	Science adequate Management deficient	Human health Animal health
Radionuclides	Science adequate Management deficient	Human health Animal health
Oil/ hydrocarbons	Science limited Management deficient	Animal health Destruction of amenities Decreased biological productivity Foodstuff taint
PAHs*	Science limited Management deficient	Human health Animal health Foodstuff taint

\* combustion processes, industry, diffuse sources

Although all the substances listed in table 1 represent threats to the marine environment, four represent the greatest concern on a global scale. These are not necessarily in order of priority, sewage, nutrients, synthetic organic compounds and sediments.

This table is not exhaustive regarding pollution threats to the marine environment from land-based sources. Regionally and locally, other issues may predominate; i.e. inorganic compounds and other chemicals, thermal outfalls, tar balls, etc.

/...

Table 2. Globally significant contaminants/activities targeted for concerted international action

Technical and scientific assessment			Main options for actions/remedies				
Contaminant	Source/activity	Effects and targets	Policy recommendations and options	Financial and economic implications	Action/conclusion	Life quality implications	
						Expected Results	Lost Opportunities
Sewage	Human settlements; tourism	Human health/ food quality; bathing water quality; biological production; ecosystem water quality; fisheries	Treatment; proper outfalls; integrated sanitation systems; water recycling	Water prices; user fees; national and private budgets; loans and grants; regional and national plans	Land use planning; technology transfer; science and technical assistance; international fund	Improved health, food and recreation; increased revenues; health/ social problems	Tourism losses; seafood quality; epidemics (cholera); recreational amenities
Nutrients (nitrate, phosphate)	Agriculture; natural and artificial fertilizing; sewage; certain industries; ground water	Human health; biological production (eutrophication); harmful algal blooms; fish kills; water quality; fisheries	Change education and management practices, regulatory and pricing policies; investments	Food and fertilizer prices; subsidies; economic incentives; loans and grants; national budgets	Adjustment of agricultural practices and policies; sewage control	Improved and proper water conditions; improved food and human health; improved groundwater	Tourism losses; human health costs increase; ground water contamination; recreation; coral reef destruction
Synthetic organics, pesticides	Industry; commerce; agriculture	Ecosystem health; marine mammals; fisheries	Substitutes; selected bans; clean production; new processes and technologies	User fees and charges; violation charges; industrial closing; health care	Review practices and education; waste reduction (minimisation)	Improved marine products and environmental quality	Tourism; recreation; food quality
Sediment	Soil erosion; dredging; river runoff; sewage; industrial wastes; mining; fallout from organic production	Ecosystems (coral reefs, mangroves) estuaries; habitat destruction; water quality	Review of land use practices; dredging and disposal regulations; afforestation	User fees; aid and loans; national budgets	Change land-use practices and patterns; land production; integrated coastal zone management	Decreased soil erosion; improved water quality; protection of coral reefs	Land use; food production; coral reef destruction; loss of tourism; loss of habitats

Table 2. (continued)

Technical and scientific assessment			Main options for actions/remedies				
Substance/Issue	Source/activity	Effects and targets	Policy recommendations and options	Financial and economic implications	Action/conclusions	Life quality implications	
						Expected Results	Lost Opportunities
Litter*	Human activity	Reduction of amenities, Animal killing	Treatment systems, Regulatory activities	Fines/producer fee/consumer fee, Improve collection and disposal	Prohibition/public awareness campaigns, Reduction of production of litter	Higher quality amenities, Increased environmental quality	Tourism losses, losses of organisms
Metals*	Industry, Mining, Sewage, Products	Human health, Animal health	Substitutions, Discharge limit, selected bans, clean production, clean-up of Mining sites, Sewage treatment	User fees and charges, violation charges, Industry closing	Discharge Permits, clean technology, waste minimization, waste segregation	Improved marine products and environmental quality	Closing of sea-food harvesting areas, reduced environmental quality
Radionuclides	Nuclear installations, Nuclear weapons, Industry, Public Services (Hospitals/Universities) Contaminants	Human health, Animal health	Application of best available technology, International controls	User fees, waste fees	Strict controls	Reduced threats, Reduced cancer and other nuclear diseases	Closing down of beaches, fishing grounds, seafood, harvesting areas
Oil/hydrocarbons	Offshore Production, Refineries/oil terminals, Reception facilities (Ships); diffuse sources; industry	Reduction of amenities, Eco-system effects, tainting	Effluent treatment, application of technology	Increased oil prices	Review practices, waste reduction, discharge permits	Improved amenities	Loss of coastal habitats, loss in tourism
PAH	Industry, Burning of fossil fuel, diffuse sources	Human and animal health, tainting	Effluent treatment, More research needed	Investments by industry	Clean technology, effluent treatment, selected bans	Improve marine products	Less food

\* When applicable.

Annex I

Appendix 3

Text submitted by the working group on principles

Priority list of principles, approaches and measures which could be considered as applicable in the context of a global strategy and programme of action.

General

1. Sustainable development.

Management

2. Integrated coastal zone planning and management.
3. Recycling and re-use of reclaimable fractions of wastes.
4. Avoidance of non-recyclable and non-reusable materials.
5. Application of preventive measures.
6. Application of the precautionary approach.
7. Avoidance of transfer of polluting processes to other countries or geographic regions.
8. Avoidance of transfer of pollutants from one medium to another (in accordance with Montreal Guideline No.6).
- [9. Consideration of the best practicable environmental options for the release of non-reclaimable waste before discharging into the marine or estuary environment.]
- [10. Monitoring and periodic review of the effectiveness of the control measures, and their revision if necessary.]
- [11. Contingency preparedness for pollution emergencies.]

Social

- [12. Maintenance and improvement of the economic status and quality of life of disadvantaged coastal populations, or realistic compensation for change caused to their well-being and livelihood.]
13. Public information and awareness; [full and open access to information.]
- [14. Public participation in decision making.]
15. Educational programmes to include considerations for the protection of the marine environment and the need for sustainable development.



Technical and Technological

16. Setting of environmental quality objectives.
17. Achievement of emissions standards through the use of the best available technology.
18. Setting of maximum allowable pollution loads.
19. Environmentally critical pollutants (particularly bio-accumulative, toxic and/or persistent) require special attention in standard setting with a view to ultimately phasing out their emissions to the environment.
20. Transfer of best available technologies, in particular to developing countries.

Scientific

21. International scientific cooperation.
22. Systematic observation of the environmental quality, including the identification of the relationship between the sources of contaminants and observed effects.
23. Use of appropriate independent scientific organizations.

Economic and fiscal

24. Polluter pays principle.
25. Use of economic incentives.
26. Pricing policy, including economic valuation of natural resources.
27. Establishment of financing arrangements through an existing multilateral funding regime or as a new fund, which could include exploration of the appropriateness of a revolving fund, to finance national adequate applications of sewage treatment technologies; and carry out other measures to meet the objectives of the programme of action.

Organizational

28. International cooperation particularly on regional level.
29. Establishment of strong national structures and intersectoral coordination mechanisms or strengthening the existing ones.
- [30. Development of appropriate infrastructure and adequate manpower.]
31. Exchange of experience, data and information.
32. Periodic country reports.

Annex I

Appendix 4

Report of working group on costing action programmes

1. The working group considered the following documents:

- (i) Preliminary study on the costs and benefits of measures for the reduction of degradation of the environment from land-based sources of pollution and activities in coastal areas of the Bay of Izmir (UNEP(OCA)/WG.14/Inf.8);
- (ii) Preliminary study on the costs and benefits of measures for the reduction of the degradation of the environment from land-based sources of pollution and activities in coastal areas of the island of Rhodes (UNEP(OCA)/WG.14/Inf.9); and
- (iii) Report of the ad hoc consultation on land-based sources of pollution (Athens, 5-6 November 1991) (UNEP(OCA)/WG.14/Inf.10).

2. Consultants described the methodology used for the cost-benefit studies and presented their main findings relating to the Bay of Izmir and the Island of Rhodes. In doing so, they stressed that the studies had been completed quickly and would require further work to fulfil the request of UNEP regarding such case studies (ref: experts' meeting October 1991). The preliminary assessment for the Bay of Izmir suggested that the benefits of action outweighed the costs of control measures by a factor of 3 to 7. Similarly for Rhodes, the annual return on investment was shown to outweigh the costs by a factor of at least three.

3. In the subsequent working group discussion, the following points were made:

- (i) Cost-benefit-analyses of localized remedial action can be highly informative and could lead to appropriate investment decisions, even in the current absence of adequate methods that allow social or quality of life benefits to be quantified;
- (ii) Regional programmes should develop priorities, with identified costs and targets as necessary, to combat the most serious problems. Implementation of priorities identified requires high-level political and financial commitment and participation;
- (iii) Reliable costing of implementation strategies, particularly at the national level, will only be possible when the causes of degradation and the means to control them are clearly identified. Concerning the studies tabled, even with their incomplete analyses, it was apparent that the benefits of protecting the coastal environment far exceed the costs;
- (iv) Further case studies with improved methodologies would be useful if they included an identification of potential sources of income, obtained through economic activity or environmental improvement resulting from the planned action programme, to finance its costs;

- (v) Methodologies need to be developed to evaluate, in non-monetary terms, costs and benefits related to sustainable development and quality of life indicators (such as improved infant mortality rates, life expectancy and literacy), that are particularly suitable for developing countries where populations are largely outside the monetary economy; and
- (vi) Revolving funds, given the evidence of the two case studies, can play a valuable role. These funds should be structured so that non-monetary issues are taken into account, through mechanisms such as the conversion of non-monetary benefits into monetary terms or through subsidies.

4. The working group did not make a detailed costing of either regional action programmes or of a global programme due to the absence of adequate information and time constraints. The working group did discuss a methodology for costing action programmes.

5. The working group emphasized that costing analyses must be an integral part of every regional action programme and should be updated and reviewed periodically.

6. The working group agreed on the merit of costing projects of a high priority programme of action, regionally agreed upon at a high political level, with the participation of global, regional and national financing institutions carrying out the pre-feasibility studies as well as the involvement of the corporate sector.

7. The working group recommends that the methodology below be used for costing regional programmes and local studies:

(a) A general description of the study area, providing basic information on the status of the natural resources of the area, demographic trends, land and sea use practices, economic development indicators, etc.;

(b) An analysis of land-based sources of pollution and activities in coastal areas contributing to the degradation of the marine and coastal terrestrial environment, including:

- An inventory of coastal point and non-point sources and activities;
- An estimate of the type and amount of pollutants reaching the environment from coastal land-based sources and activities either through direct discharges or indirectly through atmospheric or riverine transport;
- An estimate of the ecological and human health related impact of the sources and activities;

(c) An analysis of the actual and potential social and economic costs of pollution from land-based sources and activities in coastal areas, expressed in monetary terms; indirect impacts due to loss, depletion or depreciation of natural resources or their quality, or due to effect on human health, should also be accounted for;

(d) An analysis of the costs and associated benefits, expressed in monetary terms, from measures which have been introduced to control pollution from land-based sources or activities in coastal areas;

(e) An analysis of costs and benefits of additional measures (legal, administrative, economic, fiscal, technological, institutional) which would have to be introduced in order to protect the marine and coastal areas and ensure their sustainable development and use; and

(f) An evaluation of costs and benefits in non-monetary terms, related to sustainable development and the quality of life of populations, including those largely outside the monetary economy.

8. The working group recommends that the above costing methodology be included in the report of the Meeting to the Preparatory Committee for UNCED and the post-UNCED meeting [to ensure the implementation of the land-based sources of marine pollution component of Agenda 21].

-----



## General Assembly

Distr.  
LIMITED

A/CONF.151/PC/WG.II/L.16/Rev.1  
16 March 1992

ORIGINAL: ENGLISH

---

PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Fourth session  
New York, 2 March-3 April 1992  
Working Group II  
Agenda item 2

PROTECTION OF THE OCEANS AND ALL KINDS OF SEAS, INCLUDING  
ENCLOSED AND SEMI-ENCLOSED SEAS, AND COASTAL AREAS AND THE  
PROTECTION, RATIONAL USE AND DEVELOPMENT OF THEIR LIVING  
RESOURCES

Conservation and management of living resources of the  
high seas

Principles and measures for an effective regime based on  
the United Nations Convention on the Law of the Sea

Proposal submitted by Antigua and Barbuda, Argentina,  
Bahamas, Barbados, Belize, Canada, Cape Verde, Chile,  
Comoros, Cook Islands, Costa Rica, Cuba, Dominica,  
Fiji, Gambia, Guinea, Guinea-Bissau, Guyana, Iceland,  
Jamaica, Kenya, Kiribati, Maldives, Marshall Islands,  
Mauritania, Mauritius, New Zealand, Papua New Guinea,  
Peru, Philippines, Saint Kitts and Nevis, Saint Lucia,  
Samoa, Senegal, Seychelles, Solomon Islands, Sri Lanka,  
Tonga, United Republic of Tanzania and Vanuatu

### BACKGROUND

1. Pursuant to the United Nations Convention on the Law of the Sea, States fishing on the high seas have three fundamental obligations with respect to the conservation and management of living resources:

(a) To adopt with respect to their nationals measures for the conservation of the living resources (art. 117);

(b) To cooperate with other States in taking such measures (art. 117);

(c) To seek to agree with the coastal States on measures necessary to ensure the conservation of straddling stocks (arts. 116 and 63 (2)) and to cooperate in the conservation of highly migratory species (art. 64).

2. Articles 119 and 120 provide obligations ancillary to these fundamental obligations.

3. Experience shows that, while constituting a sound framework, in a number of high seas areas these obligations are not being implemented as intended. In these areas there are problems of unregulated fishing, vessel reflagging to escape controls, harmful fishing practices such as driftnetting, overfishing, lack of surveillance, control and enforcement and, in general, lack of the required cooperation with other States. Resort to these harmful practices is increasing and may spread to other areas of the high seas.

4. It is necessary to identify and achieve international agreement on principles and measures, consistent with the Convention, to eliminate these practices and thus provide for an effective conservation regime on the high seas giving full effect to the Convention's provisions. Following is a proposed list of such principles and measures for inclusion in Agenda 21.

#### PRINCIPLES

(a) High seas fishing must be carried out only on the basis of sustainable ecologically sound practices, effectively monitored and enforced, in order to ensure conservation and promote optimum utilization of the living resources.

(b) In order to ensure sustained conservation of those resources, fisheries management regimes must effectively maintain the ecological relationship between dependent and associated populations, prevent any decrease in the size of harvested populations below those necessary to ensure their stable recruitment, and avoid adverse impacts or changes in the marine ecosystem.

(c) On the high seas, States fishing a stock which straddles the 200-mile limit of a coastal State, or highly migratory species which are found within that limit, must take all measures necessary to give effect to the special interest and responsibility of the coastal State concerning the portion of the stock outside the 200-mile limit and in the highly migratory species while outside that limit.

(d) High seas fishing must not have an adverse impact on the resources under the jurisdiction of coastal States.

9. With respect to a highly migratory species, the management regime on the high seas must fully recognize the sovereign rights of the coastal State in its exclusive economic zone and, taking into account the special interest of the coastal State in the species while outside its zone, avoid an adverse impact on the resource within that zone.

-----

MEASURES

1. States must effectively monitor and control fishing activities of their nationals, vessels and crews thereof on the high seas to ensure the conservation of the resources, compliance with applicable conservation and management rules, complete and accurate reporting of catches and effort, and avoidance of incidental catch.
2. States must make available to appropriate international organizations all data relating to catches on the high seas as well as scientific data on these catches. States fishing the same stocks must also cooperate through the exchange of such data.
3. States must ensure that vessels authorized to fly their flag comply with the conservation and management rules adopted by competent international organizations or, where no such organization exists, through other international arrangements.
4. States must establish penalties under domestic law, and take legal action against their nationals, vessels and crews thereof, for any violation of rules adopted by competent international organizations or, where no such organizations exist, through other international arrangements, whether such violations are committed directly or through resort to techniques such as the reflagging of vessels in foreign countries. States must take similar action for any violation of domestically instituted conservation and management rules.
5. States whose nationals or vessels fish in the same area of the high seas must cooperate to establish international arrangements or organizations to ensure sustainable and optimally developed fisheries through effective conservation and management regimes, including as appropriate reciprocal inspection and enforcement systems and dispute settlement mechanisms.
6. States must cooperate with competent international organizations or, where such organizations do not exist, through other international arrangements, and ensure that their nationals, vessels and crews thereof, do not violate rules adopted pursuant to such regimes.
7. In areas of the high seas where a management regime has been agreed within the framework of a competent international organization or, where such an organization does not exist, through another international arrangement, States must ensure that high seas fishing is undertaken only in accordance with the conservation and management rules adopted under that organization or arrangement.
8. With respect to a stock occurring both within the exclusive economic zone of a coastal State and in an area of the high seas adjacent to it, the management regime applied to the stock must provide for consistency of the measures applied on the high seas with those applied by the coastal State within its exclusive economic zone.



Form 576 (G 16)  
PROCEEDINGS OF THE  
MORNING JOURNAL

## FRESHWATER

### **SUMMARY**

PrepCom IV agreed a lengthy and comprehensive text with square brackets on the sections dealing with financial and technology resources, pending decisions on these core issues in the wider UNCED debate; and on the Introduction and General Objectives sections, which await a decision in Rio whether these and other similar paragraphs in other sectoral chapters will be retained or deleted.

Canada's objectives were largely achieved. Although the Dublin Guiding Principles have not been incorporated verbatim, they are well reflected in the Agenda 21 text together with the approaches defined in the Dublin Conference report. No new institutional arrangements were recommended; what must now be determined is how the overall UNCED follow-up mechanism can best take up the need to see that the actions outlined in Agenda 21 are implemented.

### **DOCUMENTATION**

A/CONF.151/PC/WG.II/L.29: Agreed Agenda 21 Chapter: Protection of the Quality and Supply of Freshwater Resources (replaces PC/100/Add.22)

A/CONF.151/PC/L.78: Decision on square-bracketed text remaining in Agenda 21 chapters

### **CANADIAN OBJECTIVES**

1. Support the water management approaches and directions defined at the Dublin Water Conference.
2. Seek modifications to those sections of the Agenda 21 text unacceptable to Canada.
3. Avoid, to the extent possible, the creation of new institutions, and avoid financial commitment to institutional and other proposals for the water sector for which no funds have been identified.
4. Ensure that the Freshwater decisions regarding cross-sectoral issues such as technology transfer and financial resources are consistent with the conclusions of the Plenary on these issues.
5. Encourage the removal of financial estimates from the Agenda 21 document on freshwater.

## PREPCOM DISCUSSION

While the Agenda 21 chapter on Freshwater was generally regarded as non-contentious, negotiations on the final document at PrepCom IV were unexpectedly slow. The main issues under debate were local/national as opposed to inter-country/international approaches to freshwater management, references to water as an economic good, whether targets could be agreed before the size of the financial resource package was known, and reflection of the Dublin Conference report in the Agenda 21 chapter.

Local/national vs. inter-country/international management: the delegation of India spearheaded resistance to several references regarding international or global aspects of water management, taking the position that local and national approaches were the most appropriate. India also successfully inserted many qualifiers (as/if/when appropriate) in the text dealing with international aspects of water management. At the root of India's position was concern over calls for cooperative management of transboundary water resources; a separate group was needed to successfully negotiate agreed wording to all parts of the text dealing with transboundary aspects.

A down-to-the-wire paragraph was the chapeau in 23(o) which called for developing and strengthening implementation mechanisms at all levels. India rejected the term "implementation mechanisms", again particularly with regard to regional and global levels. Canada in turn did not accept India's proposal to use the term "cooperation" which we felt was too soft. The agreed compromise text reads "cooperation, including mechanisms where appropriate".

Water as an economic good: Many developing countries objected to references as water as an economic good and the need to establish water pricing policies accordingly. From their perspective, water must be seen first and foremost as a basic necessity and a social good. The agreed text therefore refers to water as a social and economic good, preserving both concepts.

Targets: while developing countries were by no means unanimous in their views, many (again led by India) said they could not agree the target dates until the size of the financial and technology resource package was known. Others probably preferred to see targets and dates specified against which they could plan, and to see the financial picture develop at its own pace, but they were not particularly vocal. The final text includes a footnote that the targets will be re-examined in light of the discussions

on finance issues, technology transfer and comparable target setting in other Agenda 21 areas.

Dublin Conference Report: incorporation of the Dublin Report into Agenda 21 got off to a rocky start when Argentina and Colombia, supported by Kenya, Egypt and Brazil, stated categorically that they would not accept inclusion of the Dublin Guiding Principles in the Agenda 21 text. Proponents of including the principles (Canada, the Nordics, Mexico, USA, EC member states) could not soften the Colombian or Argentinean stance. Since the only middle ground would be to open negotiations on the text of the Principles, which time constraints precluded, the final text does not quote the Dublin Principles. Since the Principles are well reflected (if not incorporated verbatim) in the proposed activities in Agenda 21, the main objective in this regard was achieved.

The resistance to Dublin applied only to the Principles, since several sections of the Dublin Report were incorporated with little discussion into the Agenda 21 text. The net result of these additions is to enhance the enabling environment for water resource management, including the development of human resources; the participation of local communities; the involvement of women given their crucial role in the practical day to day supply, management and use of water; and building the technical and human capacity in developing countries, particularly in rural areas.

A last-minute addition to the text was the proposal by the observer from Palestine to include "people under occupation" in paragraphs 20(c) and 27. This proposal took most delegations by surprise and no-one opposed it. The text was approved with the inclusion of the Palestinian proposal. Later, however, when Palestine proposed similar amendments in another Agenda 21 chapter, Israel and the USA opposed the language in any chapter. After brief off-line negotiations, the phrase was square-bracketed in all chapters. In the final Plenary debate in the closing hours of the PrepCom, however, the agreement to square brackets appears to have been reversed by a decision of the Chair in the context of a debate on inclusion of "people under occupation" in the Earth Charter. Given the confusion, it will probably be best to check the formal PrepCom IV report when it is issued by the Secretariat to determine whether this phrase is, in fact, in square brackets in the Freshwater text.

#### OUTCOME AND ASSESSMENT

The Agenda 21 chapter is a comprehensive approach to management of freshwater resources with which Canada can be

generally satisfied. Text remaining in square brackets includes the financial and technology resource paragraphs (which were bracketed in all chapters pending resolution of these core issues in the broader UNCED debate), as well as the Introduction and General Objectives sections. In an overall decision of Plenary (A/CONF.151/PC/L.78), it was agreed that Chairs and Secretariat co-ordinators will review introductory paragraphs in all Agenda 21 chapters to determine which ones should be retained or deleted; the final decision will be taken in Rio. This decision is of particular importance to the Freshwater chapter, as many delegates took the position that these sections reflected important aspects which should not be lost.

The Canadian objectives have largely been met. The chapter supports the water management approaches and directions defined at the Dublin Conference, and reflects the principles, action areas, and capacity-building measures identified in the Dublin Report. There is no text unacceptable to Canada; although the qualifier "and needs" was not introduced into the text addressing targets, these targets have been sufficiently qualified in other ways. The creation of new institutions and financial commitment to institutional and other proposals for which no funds have been identified was avoided. The financial estimates in the Agenda 21 chapter were not taken up; in a common approach through all sectoral chapters, they, together with the technology transfer sections, were bracketed for referral to the more general debate on financial and technology resources in the PrepCom process.

The one potential weakness of the document is the lack of a clear call for a follow-up implementation plan, particularly at the international level, raising the question of whether the Agenda 21 chapter will be another Mar del Plata action plan that, while well-intentioned, will suffer from lack of attention to actually making it work. Guided by Canada's general policy of avoiding the creation of new institutions, the Canadian delegation did not actively promote the concept of a world water council/forum. Aside from one mild inquiry from Kenya about Canada's current position on the council, no delegation took up the banner on this question. The noticeable silence points to the conclusion that there is no general groundswell of political support for an international mechanism for freshwater resource management. While the position of the Indian delegation on regional and international aspects was undoubtedly a strong factor in the way the negotiations on the text played out, another factor should be considered. There is a certain perception, gleaned from corridor conversations, that while the Collaborative Council for Water Supply and Sanitation exists, another global water forum is a non-starter.

Working Group III of the PrepCom was to have considered the specific institutional proposals emerging from the other Working Groups and Plenary, including the Dublin Report recommendations for Freshwater. Due to time constraints, however, Working Group III did not address this issue. In the final Plenary meeting, Canada asked the UNCED Secretariat to prepare a compilation of institutional proposals coming out of the Plenary and Working Groups I and II. The Secretariat has undertaken to do this. The institutional issues will likely be examined in Rio and followed up in more detail at UN General Assembly 47.

The Interdepartmental Working Group could consider what future action Canada might pursue in light of the agreed text on Freshwater, and the decision to examine in Rio specific proposals on institutional follow-up.

Report prepared by:

Janice Kostash  
UNCED National Secretariat  
953-9304

Further information:

Terry McRae  
Environment Canada  
953-9095

PREP. COM. II



General Assembly

Distr. LIMITED

A/CONF.151/PC/WG.II/L.29  
26 March 1992

ORIGINAL: ENGLISH

Paras 1-15: If PC III decides to drop later, will be dropped  
: If PC III decides to include, will go to 12/10/92  
[4]

PREPARATORY COMMITTEE FOR THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Fourth session  
New York, 2 March-3 April 1992  
Agenda item 2 (c) of Plenary  
Agenda item 3 of Working Group II

[ ] because of financial/tech transfer issues:  
paras 24  
35  
15  
56 (b) (vi)

55 (c) (vii)  
55 (c) (xi)  
56  
65  
80  
89

PREPARATIONS FOR THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT ON THE BASIS OF GENERAL ASSEMBLY RESOLUTION 44/228 AND TAKING INTO ACCOUNT OTHER RELEVANT GENERAL ASSEMBLY RESOLUTIONS: CROSS-SECTORAL ISSUES

PROTECTION OF THE QUALITY AND SUPPLY OF FRESHWATER RESOURCES: APPLICATION OF INTEGRATED APPROACHES TO THE DEVELOPMENT, MANAGEMENT AND USE OF WATER RESOURCES

(Section II, Chapter 10, of Agenda 21)

Text submitted by the Chairman on the basis of negotiations held on document A/CONF.151/PC/100/Add.22

INTRODUCTION

1. The present document has been prepared by the Secretary-General of the Conference in response to Preparatory Committee decision 3/22. It is based on the guidance provided by the Preparatory Committee on the structure of Agenda 21, as contained in decision 3/2.

2. Effectively integrated management of water resources is important to all socio-economic sectors relying on water. Rational allocation prevents conflict and enhances the social development of local communities as well as economic planning and productivity. Efficient demand management allows water-using sectors to make long-term savings on water costs and stimulates resource-conscious production technologies. Health conditions and environmental quality should also improve, either as a result of integrated

development planning or as a beneficial consequence of improved environmental or social conditions.

Linkages to other environmental and developmental issues

3. Water is a finite resource, essential for the sustenance of life on earth. Virtually all the environmental issues listed in General Assembly resolution 44/228 are directly or indirectly linked to freshwater issues. With increases in economic activities and the consequent potential for stress on ecosystems and natural resource stocks, the study and recognition of linkages between freshwater issues and other sectoral and cross-sectoral issues is becoming increasingly important. Socio-economic pursuit/including urbanization, industrial production and agricultural activities/has reached a stage where freshwater issues have often become the limiting factor for sustainable development. Freshwaters/ivers, reservoirs, lakes and groundwaters [, polar ice mass and glaciers]/are in contact with other ecosystems and are used in a variety of human activities, many of which would not be possible without a freshwater supply of adequate quality and quantity.
4. Poor land-use management, including deforestation, non-sustainable agriculture, mining and urbanization, could lead to a considerable increase in erosion problems and related soil loss in the river basins. The sedimentation in large reservoirs may have serious adverse effects downstream by reducing the quantity of natural nutrients available to agricultural land or to coastal waters. The loss of nutrients can lead to increased fertilizer use and decreases in coastal fishery yields. Acidification of surface and some groundwaters owing to atmospheric deposition of air pollutants can lead to depletion of freshwater living resources, contributing to the loss of biodiversity. Construction of dams for hydropower and irrigation, water channelization, over-abstraction from aquifers, use of water bodies as open sewers for the discharge of both domestic and industrial wastes can lead to the salinization of rivers, lakes, and soils, salt intrusions in coastal aquifers, and serious water pollution problems. Should climate change occur as a result of global warming, it would affect low-lying island freshwater resources and may affect the world's freshwater resources through [the melting of ice mass in the Arctic and Antarctic regions and] changes in the hydrologic cycle, resulting in changes in precipitation, with possible decreases in many areas of the Northern Hemisphere, accompanying decreases in soil moisture and annual river runoff. Even in the absence of global warming, a natural variation in precipitation may be expected, as in the past, resulting in periodic drought which can impact water availability, with consequent negative implications for economy and development. Because of these concerns, an integrated approach to freshwater management seems vital, along with, for example, an integrated approach to pollution control, the optimal use of water and a holistic approach to the conservation of ecosystems.
5. Transboundary water resources and their use are of great importance to riparian States. In this connection, cooperation among these States may be desirable in conformity with existing agreements and/or other relevant arrangements, taking into account the interests of all riparian States concerned.



6. Water-related diseases are still a major health problem, especially in the developing countries. Diseases caused by the microbiological pollution of water supplies or transmitted by water-associated vectors, and those related to inadequate sanitation and the absence of clean water, are widespread. With water use per capita expected to increase significantly in developing countries with high economic or population growth rates, the volume of waste requiring treatment is expected to present a growing problem. Likewise, the application of water-intensive production techniques and other high water-use consumption patterns are of concern in certain countries, particularly industrial ones. To ignore the interactions and linkages between freshwater issues and other sectoral issues could result in severe social, economic or human health consequences. Therefore, the provision of water supply and sanitation in developing countries is not only a vital ingredient of economic and social development but also an important element of environmental protection.

#### GENERAL OBJECTIVES

7. Water is a necessity for all aspects of life. The general objective is to ensure that all the population of the planet have access and continue to have access to an adequate supply of water of good quality, while maintaining the hydrological, biological and chemical functions of ecosystems, adapting human activities to the capacity limits of nature, combating water-borne diseases and preserving spiritual and cultural values.

8. Freshwater resources are an essential component of the earth's hydrosphere and an indispensable part of all terrestrial ecosystems. The freshwater environment is characterized by its hydrological regime, including floods and droughts which, in some regions, have become more extreme and dramatic in their consequences in recent years. Global climate changes could also have their impact on freshwater resources and their availability and, through sealevel rise and atmospheric pollution, threaten coastal aquifers and small island ecosystems.

9. Freshwaters are a finite resource, not only indispensable for the sustenance of life on earth but also of vital importance to all socio-economic sectors. Development is not possible without considerable exploitation of water sources in relation to other land use activities and the control of deforestation and desertification. Priority must be given to the sustenance of land/water ecosystems, with particular attention to wetlands and biodiversity, and the satisfaction of basic human needs for drinking water, health protection and food security. For any water utilization beyond this, freshwater resources have to be considered as an economic good with an opportunity cost in alternative uses.

10. The Mar del Plata Action Plan, which emerged from the United Nations Water Conference in 1977, remains generally valid as the common basis for national and international action programmes in the freshwater sector. The review of progress achieved in its implementation and resulting strategies for

the 1990s are reflected in Economic and Social Council resolution 1991/85. Agenda 21 in this sector, as presented hereunder, is based on these strategies, on the results of the Global Consultation on Safe Water and Sanitation for the 1990s, held at New Delhi in September 1990 (see General Assembly resolution 45/181) and on the recommendations that may emerge from the International Conference on Water and the Environment, held in Dublin in January 1992, and on the results of the Preparatory Committee.

11. The widespread scarcity of freshwater resources, the progressive encroachment of incompatible activities and the gradual destruction of freshwater resources and their aggravating pollution in many world regions demands truly integrated water resources planning and management. The multisectoral nature of water resources development in the context of socio-economic development must be recognized as well as the multi-interest utilization of water resources for agriculture, industry, urban development, hydropower, inland fisheries, transportation, recreation and other activities. Rational water utilization schemes for the development of surface and underground water supply sources and other potential sources have to be supported by concurrent water conservation and wastage minimization measures.

12. Integrated water resources management necessitates appropriate mechanisms at the global, regional, national and local levels for implementing, coordinating and funding the related strategies and action programmes. Management of water resources should, as far as possible, take place in a river basin context (catchment level). [The options proposed by the International Conference on Water and the Environment/Development Issues for the 21st Century, held in Dublin, January 1992, has provided an input to identifying suitable implementation mechanisms.]

13. Capacity-building is a prerequisite to integrated water resources management. Technical solutions will not achieve programme objectives on their own without suitable attention given to the human factor. The Symposium on a Strategy for Water Resources Capacity-Building, held at Delft in June 1991, recognized the importance of capacity-building for integrated and sustainable development of water resources at all levels. Capacity-building consists of four basic elements:

(a) Creating an enabling environment with appropriate policy and legal frameworks;

(b) Institutional strengthening and development, including local community participation;

(c) Human resources development, including the strengthening of managerial systems and water users interests;

(d) Awareness building and education at all levels of society, [including, inter alia, the consideration of a United Nations World Water Day].

14. [Adequate new and additional financial resources are indispensable for the effective utilization and protection of freshwater resources. Pursuant to the recognition of water as an economic good, but with priority to the satisfaction of basic needs, internal revenues have to be generated through cost-recovery schemes, water tariffs, taxes etc. for uses implying productive activities, reflecting marginal and opportunity costs. In addition, external support will be required for water resources development from multilateral or bilateral sources (external support agencies) and from the private sector.]

15. Innovative technologies, including the improvement of indigenous techniques, are much needed to fully utilize limited water resources and to safeguard them against pollution. Implementation of Agenda 21 in the water sectors must therefore be supported by broad-based research and development programmes allowing for new technological solutions to be developed and field-tested. Technology [transfer on preferential and concessional terms] and [cooperation and diffusion] on all aspects of integrated water resources management is to be built into each programme area.

16. In accordance with the general objectives, the following programme areas are proposed for the freshwater sector:

- (a) Integrated water resources development and management;
- (b) Water resources assessment;
- (c) Protection of water resources, water quality and aquatic ecosystems;
- (d) Drinking water supply and sanitation;
- (e) Water and sustainable urban development;
- (f) Water for sustainable food production and rural development;
- (g) Impacts of climate change on water resources.

#### PROGRAMME AREAS

##### A. Integrated water resources development and management

###### Basis for action

17. The extent to which water resources development contributes to economic productivity and social well-being is not usually appreciated, although all social and economic activities rely heavily on the supply and quality of freshwater. As populations and economic activities grow, many countries are rapidly reaching conditions of water scarcity or face limits to economic development. Water demands are increasing rapidly, with 70-80 per cent for irrigation, less than 20 per cent for industry and a mere 6 per cent for domestic consumption. The holistic management of fresh water as a finite and

vulnerable resource, and the integration of sectoral water plans and programmes within the framework of national economic and social policy, is of paramount importance for action in the 1990s and beyond. The fragmentation of responsibilities for water resources development among sectoral agencies is proving, however, to be an even greater impediment to promoting integrated water management than had been anticipated. Effective implementation and coordination mechanisms are required.

#### Objectives

18. The overall objective is to satisfy the freshwater needs of all countries for their sustainable development.
19. Integrated water resources management is based on water as an integral part of the ecosystem, a natural resource, a social good and an economic good, the quantity and quality of which determines its utilization. To this end, water resources have to be protected, taking into account the functioning of aquatic ecosystems and the perennality of the resource in order to satisfy or reconcile water needs for human activities. In developing and using water resources, priority has to be given to the satisfaction of basic needs and the safeguarding of ecosystems. Beyond these requirements, however, water users should be charged appropriately.
20. Integrated water resources management, including the integration of land and water aspects, should be carried out at the catchment basin or sub-basin level. Four principal objectives should be pursued, as follows:
  - (a) To promote a dynamic, interactive, iterative and multisectoral approach to water resources management, including the identification and protection of potential sources of freshwater supply, which integrates technological, socio-economic, environmental and human health considerations;
  - (b) To plan for the sustainable and rational utilization, protection, conservation and management of water resources based on community needs and priorities and within the framework of national economic development policy;
  - (c) To design, implement and evaluate projects and programmes which are both economically efficient and socially appropriate within clearly defined strategies, based on a full public participatory approach, including the participation of women, youth, indigenous people and local communities in water management policy-making and decision-making;
  - (d) To identify and strengthen or develop, as required, in particular in developing countries, the appropriate institutional, legal and financial mechanisms to ensure that water policy and its implementation is a catalyst for sustainable social progress and economic growth.
21. In the case of transboundary water resources, there is a need for riparian States to formulate water resource strategies, prepare water resource action programmes and consider, where appropriate, the harmonization of those strategies and action programmes.

[land people under occupation]

22. <sup>\*</sup> [All States, according to their capacity and available resources, and through bilateral or multilateral cooperation, including through the United Nations and other relevant organizations as appropriate, could set the following targets:

By the year 2000:

(a) Have designed and initiated costed and targeted national action programmes, and have appropriate institutional structures and legal instruments in place;

(b) Have established efficient water use programmes to attain sustainable resource utilization patterns.

By the year 2025:

(c) Reach subsectoral targets of all freshwater programme areas.

It is understood that the fulfilment of the targets quantified in (a) and (b) above will depend upon new and additional financial resources that will be made available to developing countries in accordance with the relevant provisions of General Assembly resolution 44/228.]

#### Activities

23. All States, according to their capacity and available resources, and through bilateral or multilateral cooperation, including through the United Nations and other relevant organizations, as appropriate, could implement the following activities to improve integrated water resources management:

(a) Formulation of costed and targeted national action plans and investment programmes;

(b) Integration of measures for the protection and conservation of potential sources of freshwater supply, including the inventorying of water resources, with land-use planning, forest resource utilization, protection of mountain slopes and riverbanks and other relevant development and conservation activities;

(c) Development of interactive databases, forecasting models, and economic planning models, methods for water management and planning, including environmental impact assessment methods;

(d) Optimization of water resources allocation under physical and socio-economic constraints;

(e) Implementation of allocation decisions through demand management, pricing mechanisms and regulatory measures;

\* See note on para 33

/...

(f) Flood and drought management, including risk analysis and environmental and social impact assessment;

(g) Promotion of schemes for rational water use through public awareness raising, educational programmes, levying of water tariffs and other economic instruments;

(h) Mobilization of water resources, particularly in arid and semi-arid areas;

(i) Promotion of international scientific research cooperation on freshwater resources;

(j) Development of new and alternative sources of water supply such as seawater desalination, artificial groundwater recharge, use of marginal-quality water, wastewater reuse and water recycling;

(k) Integration of water quantity and quality management, including surface and underground water resources;

(l) Promotion of water conservation through improved water use efficiency and wastage minimization schemes for all users, including the development of water-saving devices;

(m) Support to water users groups to optimize local water resources management;

(n) Development of public participatory techniques and their implementation in decision-making, particularly the enhancement of the role of women in water resources planning and management;

(o) Development and strengthening, as appropriate, of ~~implementation mechanisms~~ ~~[cooperation]~~ ~~[mechanisms for cooperation]~~ cooperation, including mechanisms where appropriate, at all levels concerned;

- (i) Generally, delegation of water resources management to the lowest appropriate level, in accordance with national legislation, including decentralization of government services to local authorities, private enterprises and communities;
- (ii) At the national level, integrated water resources planning and management in the framework of the national planning process, and, where appropriate, establishment of independent regulation and monitoring of freshwater, based on national legislation and economic measures;
- (iii) At the regional level, to consider, where appropriate, harmonization of national strategies and action programmes;

- (iv) At the global level, improved delineation of responsibilities, division of labour and coordination of international organizations and programmes, including facilitating discussions and sharing experiences in areas related to water resources management;
- (p) The dissemination of information, including operational guidelines, and the promotion of education for water users.

Means of implementation

Financing and cost evaluation

24. [During the period 1993 to 2000, an annual amount of about US\$ 100 million of international financing is required to support national development in this programme area. The strengthening of international institutions in support of the planning and initiation phases at the country level requires the allocation of about US\$ 10 million per year. The transboundary and global freshwater issues require financial support in the order of US\$ 5 million annually for the executing of national, regional and global authorities and organizations. The total annual financing requirements in this programme area amount to US\$ 115 million.]

Scientific and technological means

25. The development of interactive databases, forecasting methods and economic planning models appropriate to the task of managing water resources in an efficient and sustainable manner will require the application of new techniques such as geographic information systems and expert systems to gather, assimilate, analyse and display multisectoral information and also to optimize decision-making. In addition, the development of new and alternative sources of water supply and low-cost water technologies will require innovative applied research. This will involve the transfer, adaption and diffusion of new techniques and technology to developing countries, as well as the development of endogenous capacity, to be able to deal with the added dimension of integrating engineering, economic, environmental and social aspects of water resources management and the prediction of the effects of human impacts.

26. Pursuant to the recognition of water as a <sup>social</sup> economic and social good, the various available options for charging water users have to be further evaluated and field-tested, including domestic, urban, industrial and agricultural water user groups. Further development is required on economic instruments that take into account opportunity costs and environmental externalities. Field studies on the willingness to pay should be conducted in rural and urban situations.

26 (bis). Water resources development and management should be planned in an integrated manner, taking into account long-term planning needs as well as shorter horizons, i.e., it should incorporate environmental, economic and social considerations based on the principle of sustainability; it should

include the requirements of all users as well as those relating to the prevention and mitigation of water-related hazards; and it should be an integral part of the socio-economic development planning process. A prerequisite for the sustainable management of water as a scarce vulnerable resource is that its full costs should be acknowledged in all planning and development. Planning considerations should reflect benefits investment, environmental protection and operation costs, as well as the opportunity costs reflecting the most valuable alternative use of water. Actual charging need not necessarily burden all beneficiaries with these considerations. Charging mechanisms should, however, reflect as far as possible both the true cost of water when used as an economic good and the ability of the communities to pay.

26 (ter). The role of water as a social, economic and life-sustaining good should be reflected in demand management mechanisms and implemented through water conservation and re-use, resource assessment, and financial instruments.

26 (quart). The setting of priorities afresh for private and public investment strategies should take place taking into account (a) maximum utilization of existing projects, through maintenance, rehabilitation and optimal operation; (b) new or alternative clean technologies; and (c) environmentally and socially benign hydro-power.

#### Human resources development

27. The delegation of water resources management to the lowest appropriate level necessitates the education and training of water management staff at all levels, and ensuring that women participate equally in these education and training programmes. Particular emphasis has to be placed on the introduction of public participatory techniques, including enhancement of the role of women, youth, indigenous people and local communities. Skills related to various water management functions have to be developed by municipal government and water authorities and also in the private sector, local/national non-governmental organizations, cooperatives, corporations and other water user groups. Education of the public in the importance of water and its proper management is also needed.

[and people under occupation.]

27 (bis). To implement these principles, communities need to have adequate capacities. Those who establish the framework for water development and management at any level, whether international, national or local, need to ensure that the means exist to build those capacities. The means will vary from case to case. They usually include:

(a) Awareness-creation programmes, including mobilizing commitment and support at all levels and initiating global and local action to promote such programmes;

(b) The training of water managers at all levels so that they have an appropriate understanding of all the elements necessary for their decisions;

(c) The strengthening of training capacities in developing countries;



- (d) Appropriate training of the necessary professionals, including extension workers;
- (e) Improvement of career structures;
- (f) Sharing of appropriate knowledge and technology, both for the collection of data and for the implementation of planned development; this should include non-polluting technologies and the knowledge needed to extract the best performance from the existing investment system.

#### Capacity-building

28. Institutional capacity for implementing integrated water management should be reviewed and developed when there is a clear demand. Existing administrative structures will often be quite capable of achieving local water resources management, but the need may arise for new institutions based upon, e.g., river catchment areas, district development councils or local community committees. Although water is managed at various levels in the socio-political system, demand-driven management requires the development of water-related institutions at appropriate levels, taking into account the need for integration with land use management.

29. In creating the enabling environment for lowest appropriate-level management, the role of Government includes mobilization of financial and human resources, legislation, standard-setting and other regulatory functions, monitoring and assessment of the use of water and land resources, and creating opportunities for public participation. International agencies and donors have an important role to play to support developing countries in creating the required enabling environment for integrated water resources management. This should include, as appropriate, donor support to local levels in developing countries, including community-based institutions, non-governmental organizations and women's groups.

### B. Water resources assessment

#### Basis for action

30. Water resources assessment, including the identification of potential sources of freshwater supply, is the continuing determination of sources, extent, dependability and quality of water resources and of the human activities which affect these resources. It is the practical basis for their sustainable management and a prerequisite for evaluation of the possibilities for this development. There is, however, growing concern that at a time when more precise and reliable information is needed about water resources, hydrological services and related bodies are less able to provide this information, especially information on groundwater and water quality. Major impediments are the lack of financial resources for water resources assessment, the fragmented nature of hydrological services and the insufficient numbers of qualified staff. At the same time, the advancing

technology for data capture and management is increasingly difficult to access for developing countries. Establishment of national databases is, however, vital to water resources assessment and for mitigating the effects of floods, droughts, desertification and pollution.

### Objectives

31. Based upon the Mar del Plata Action Plan, this programme area is extended into the 1990s and beyond with the overall objective of ensuring the assessment and forecasting of the quantity and quality of water resources, in order to estimate the total quantity of water resources available and their future supply potential, to reflect their current quality status, to predict possible conflicts between supply and demand and to provide a scientific database for rational water resource utilization.

32. Five specific objectives are set, accordingly, as follows:

(a) To make available to all countries water resource assessment technology that is appropriate to their needs, irrespective of their level of development, including methods for the impact assessment of climate change on freshwaters;

(b) To have all countries, according to their financial means, allocate to water resource assessment financial resources in line with the economic and social needs for water resources data;

(c) To ensure that the assessment information is fully utilized in the development of water management policies;

(d) To have all countries establish the institutional arrangements needed to ensure the efficient collection, processing, storage, retrieval and dissemination to users of information about the quality and quantity of available water resources at the level of catchments and groundwater aquifers in an integrated manner;

(e) To have sufficient numbers of appropriately qualified and capable staff recruited and retained by water resource assessment agencies, and provided with the training and retraining they need to carry out their responsibilities successfully.

33. \* [All States, according to their capacity and available resources, and through bilateral or multilateral cooperation, including through the United Nations and other relevant organizations, as appropriate, could set the following targets:

(a) By the year 2000<sup>1</sup>, have studied in detail the feasibility of installing water resources assessment services;

(b) As a long-term target, have fully operational services available based upon high-density hydrometric networks.]

\* Brackets indicate reserve on targets under financial resources question resolved.  
1 The target dates mentioned in this document will be re-examined in light of the discussions on finance issues, tech. transfer + comparable target-setting in other Agenda 21 areas.

Activities

34. All States, according to their capacity and available resources, and through bilateral or multilateral cooperation, including through the United Nations and other relevant organizations, as appropriate, could undertake the following activities:

- (a) Institutional framework
  - (i) Establish appropriate policy frameworks and national priorities;
  - (ii) Establish and strengthen the institutional capabilities of countries, including legislative and regulatory arrangements, that are required to ensure the adequate assessment of their water resources and the provision of flood and drought forecasting services;
  - (iii) Establish and maintain effective cooperation at the national level between the various agencies responsible for the collection, storage and analysis of hydrological data;
  - (iv) Cooperate in the assessment of transboundary water resources, subject to the prior agreement of each riparian State concerned;
- (b) Data systems
  - (i) Review existing data collection networks and assess their adequacy, including those that provide real time data for flood and drought forecasting;
  - (ii) Improve networks to meet accepted guidelines for the provision of data on water quantity and quality for surface and groundwater, as well as relevant land use data;
  - (iii) Apply standards and other means to ensure data compatibility;
  - (iv) Upgrade facilities and procedures used to store, process and analyse hydrological data and make such data and the forecasts derived from them available to potential users;
  - (v) Establish databases on the availability of all types of hydrological data at the national level;
  - (vi) Implement "data rescue" operations, e.g., establishment of national archives of water resources;
  - (vii) Implement appropriate well-tried techniques for the processing of hydrological data;
  - (viii) Derive area-related estimates from point hydrological data;

- (ix) Assimilate remotely sensed data and the use, where appropriate, of geographical information systems;
- (c) Data dissemination
  - (i) Identify the need for water resources data for various planning purposes;
  - (ii) Analyse and present data and information on water resources in the forms required for planning and management of countries' socio-economic development, for use in environmental protection strategies and in the design and operation of specific water-related projects;
  - (iii) Provide forecasts and warnings of flood and drought to the general public and civil defense;
- (d) Research and development
  - (i) Establish or strengthen research and development programmes at the national, subregional, regional and international levels in support of water resources assessment activities;
  - (ii) Monitor research and development activities to ensure that they make full use of local expertise and other local resources and that they are appropriate for the needs of the country or countries concerned.

Means of implementation

Financing and cost evaluation

35. [In order to attain the programme area targets as stated above by the year 2000, total average annual funding in the order of US\$ 350 million is required, including contributions from external sources of US\$ 140 million annually. The strengthening of international institutions for the development and exchange of information and technology requires about US\$ 5 million per year. The total international financing needs for the years 1993 to 2000 for this programme area amount to US\$ 145 million annually.]

Scientific and technological means

36. Important research needs include (a) development of global hydrologic models in support of analysis of climate change impact and of macroscale water resources assessment; (b) closing the gap between terrestrial hydrology and ecology at different scales, including the critical water-related processes behind loss of vegetation, land degradation and its restoration; and (c) study of the key processes in water quality genesis, closing the gap between hydrological flows and biogeochemical processes. The research models should build upon hydrological balance studies and also include the consumptive use of water. This approach should also, when appropriate, be applied at the catchment level.

37. Water resources assessment necessitates the strengthening of existing systems for technology transfer, adaptation and diffusion, and the development of new technology for use under field conditions, as well as the development of endogenous capacity. Prior to the above activities, it is necessary to prepare catalogues of the water resources information held by government services, private sector, educational institutes, consultants, local water use organizations and others.

#### Human resource development

38. Water resources assessment requires the establishment and maintenance of a body of well-trained and motivated staff sufficient to undertake the above activities. Education and training programmes should be established or strengthened at the local, national, subregional or regional levels designed to ensure an adequate supply of these trained personnel. In addition, the provision of attractive terms of employment and career paths for professional and technical staff should be encouraged. Human resource needs should be monitored periodically, including all levels of employment. Plans have to be established to meet those needs through education and training opportunities, and international programmes of courses and conferences.

38 (bis). Because well-trained people are particularly important to water resources assessment and hydrological forecasting, personnel matters should receive special attention in this area. The aim should be to attract and retain personnel to work on water resources assessment who are sufficient in number and adequate in their level of education to ensure the effective implementation of the activities that are planned. Education may be called for at both the national and the international level, while adequate terms of employment are a national responsibility.

38 (ter). Recommended actions include:

(a) Identifying education and training needs geared to the specific requirements of countries;

(b) Establishing and strengthening education and training programmes on water-related topics, within an environmental and developmental context, for all categories of staff involved in water resources assessment activities, using advanced educational technology, where appropriate, and involving both men and women;

(c) Developing sound recruitment, personnel and pay policies for staff of national and local water agencies.

#### Capacity-building

39. The conduct of water resources assessment on the basis of operational national hydrometric networks requires an enabling environment at all levels. The following national support action is necessary for enhanced national capacities:

(a) Review the legislative and regulatory basis of water resources assessment;

(b) Facilitate close collaboration between water sector agencies, particularly between information producers and users;

(c) Implement water management policies based upon realistic appraisals of water resource conditions and trends;

(d) Strengthen the managerial capabilities of water users groups to improve water use efficiency at the local level, including women, youth, indigenous people and local communities.

C. Protection of water resources, water quality and aquatic ecosystems

Basis for action

40. Freshwater is a unitary resource. Long-term development of global freshwater requires holistic management of the resources and a recognition of the interconnectedness of the elements that comprise freshwater and its quality. There are few regions of the world that are still exempt from problems of loss of potential sources of freshwater supply and of degraded water quality and the pollution of surface and groundwater sources. Major problems affecting the water quality of rivers and lakes arise, in variable order of importance according to different situations, from inadequately treated domestic sewage, inadequate controls on the discharges of industrial waste waters, the loss and destruction of catchment areas, siting of industrial plants, deforestation, uncontrolled shifting cultivation and poor agricultural practices, giving rise to the leaching of nutrients and pesticides. Aquatic ecosystems are disturbed and the living freshwater resources are threatened. Under certain circumstances, aquatic ecosystems are also affected by agricultural water resource development projects such as dams, river diversions, water installations and irrigation schemes. Erosion, sedimentation, deforestation and desertification have led to increased land degradation, and the creation of reservoirs has, in some cases, resulted in adverse effects on ecosystems. Many of these problems have arisen from a development model that is environmentally destructive and from a lack of public awareness and education about surface and groundwater resource protection. Ecological and human health effects are the measurable consequences, although the means to monitor them are inadequate or non-existent in many countries. There is a widespread lack of perception of the linkages between the development, management, use and treatment of water resources and aquatic ecosystems. A preventive approach, where appropriate, is crucial to avoid costly subsequent measures to rehabilitate, treat and develop new water supplies.

Objectives

41. The complex interconnected nature of freshwater systems demands that freshwater management be holistic, taking a catchment management approach, and be based on a balanced consideration of the needs of people and the environment. Already, the Mar del Plata Action Plan recognized the intrinsic linkage between water resource development projects and their important repercussions of a physical, chemical, biological, health and socio-economic nature. The overall environmental health objective was set:

"to evaluate the consequences which the various users of water have on the environment, to support measures aimed at controlling water-related diseases, and to protect ecosystems".

41 (bis). The extent and severity of contamination of unsaturated zones and aquifers have long been underestimated owing to the relative inaccessibility of aquifers and the lack of reliable information on aquifer systems. The protection of groundwater is therefore an essential element of water resource management.

42. Three objectives will have to be pursued concurrently to integrate water quality aspects into water resource management:

(a) Maintenance of ecosystem integrity. A management principle to preserve aquatic ecosystems, including the living resources, and to protect them effectively from any form of degradation on a drainage basin basis;

(b) Public health protection. A task requiring not only the provision of safe drinking water but also the control of disease vectors in the aquatic environment;

(c) Human resources development. A key to capacity-building and a prerequisite for implementing water quality management.

43. All States, according to their capacity and available resources, through bilateral or multilateral cooperation, including through the United Nations and other relevant organizations, as appropriate, could set the following targets:

(a) Have identified those surface and groundwater resources that could be developed for use on a sustainable basis and other major water dependent resources that can be developed and, simultaneously, have initiated programmes for the protection, conservation and rational use of these resources on a sustainable basis;

(b) Have identified all potential sources of water supply and prepared outlines for their protection, conservation and rational use;

(c) Have initiated effective water pollution prevention and control programmes, based on an appropriate mixture of pollution reduction-at-source

strategies, environmental impact assessments, enforceable standards for major point-source discharges and high-risk non-point sources, commensurate with their socio-economic development;

(d) Participate, as far as appropriate, in international water quality monitoring and management programmes such as the Global Water Quality Monitoring Programme GEMS/WATER, the UNEP Environmentally Sound Management of Inland Waters, the FAO regional inland fishery bodies, and the RAMSAR Convention on Wetlands of International Importance especially as Waterfowl Habitat;

(e) Have reduced the prevalence of water-associated diseases, starting with the eradication of dracunculiasis (Guinea worm) and onchocerciasis (river blindness) by the year 2000;

(f) Have established, according to capacities and needs, biological, health, physical and chemical quality criteria for all water bodies (surface and groundwater), with a view to an ongoing improvement of water quality;

(g) Have adopted an integrated approach to environmentally sustainable management of water resources, including the protection of aquatic ecosystems and freshwater living resources;

(h) Have put in place strategies for the environmentally sound management of freshwaters and related coastal ecosystems, including the consideration of fisheries, aquaculture, animal grazing, agricultural activities and biodiversity.

#### Activities

44. All States, according to their capacity and available resources, and through bilateral or multilateral cooperation, including through United Nations and other relevant organizations, as appropriate, could implement the following activities:

(a) Water resources protection and conservation

- (i) Establishment and strengthening of technical and institutional capacities to identify and protect potential sources of water supply within all sectors of society;
- (ii) Identification of potential sources of water supply and preparation of national profiles;
- (iii) Preparation of national plans for water resources protection and conservation;
- (iv) Rehabilitation of important but degraded catchment areas, particularly on small islands;



- (v) Strengthening of administrative and legislative measures to prevent encroachment into existing and potentially usable catchment areas;
- (b) Water pollution prevention and control
  - (i) Application of the polluter pays principle, where appropriate, to all kinds of sources, including on-site and off-site sanitation;
  - (ii) Promotion of the construction of treatment facilities for domestic sewage, industrial effluents, and the development of appropriate technologies, taking into account sound traditional and indigenous practices;
  - (iii) Establishment of standards for the discharge of effluents and for the receiving waters;
  - (iv) Introduction of the precautionary approach in water quality management, where appropriate, with a focus on pollution minimization and prevention through use of new technologies, product and process change, pollution reduction at source, effluent reuse, recycling and recovery, treatment and environmentally safe disposal;
  - (v) Mandatory environmental impact assessment on all major water resource development projects potentially impairing water quality and aquatic ecosystems, combined with the delineation of appropriate remedial measures and a strengthened control of new industrial installations, solid waste landfills and infrastructure development projects;
  - (vi) Use of risk assessment and risk management in reaching decisions in this area and ensuring compliance with those decisions;
  - (vii) Identification and application of best environmental practices at reasonable cost to avoid diffuse pollution, i.e., through a limited, rational and planned use of nitrogenous fertilizers and other agrochemicals (pesticides, herbicides) in agricultural practices;
  - (viii) Encouragement and promotion of the use of adequately treated and purified waste waters in agriculture, aquaculture, industry and other sectors;
- (c) Development and application of clean technology
  - (i) Control of industrial waste discharges, including low-waste production technologies and water recirculation, in an integrated way and by applying precautionary measures derived from a broad-based life-cycle analysis;
  - (ii) Treatment of municipal waste water for safe reuse in agriculture and aquaculture;

- (iii) Development of biotechnology, including for waste treatment, production of biofertilizers and other activities;
- (iv) Development of appropriate methods for water pollution control, taking into account sound traditional and indigenous practices;
- (d) Groundwater protection
  - (i) Developing agricultural practices that do not degrade groundwaters;
  - (ii) Application of the necessary measures to mitigate saline intrusion into aquifers of small islands and coastal plains as a consequence of sealevel rise or of overexploitation of coastal aquifers;
  - (iii) Prevention of aquifer pollution through the regulation of toxic substances that permeate the ground and the establishment of protection zones in groundwater recharge and abstraction areas;
  - (iv) Design and management of landfills based upon sound hydrogeological information and impact assessment, using best practicable and best available technology;
  - (v) Promotion of measures to improve the safety and integrity of wells and wellhead areas to reduce intrusion of biological pathogens and hazardous chemicals into aquifers at well sites;
  - (vi) Water quality monitoring, as needed, of surface and groundwaters potentially affected by sites storing toxic and hazardous materials;
- (e) Protection of aquatic ecosystems
  - (i) Rehabilitation of polluted and degraded water bodies to restore aquatic habitats and ecosystems;
  - (ii) Rehabilitation programmes for agricultural lands and for other users, taking into account equivalent action for the protection and use of groundwater resources, important for agricultural productivity and for the biodiversity of the tropics;
  - (iii) Conservation and protection of wetlands owing to their ecological and habitat importance for many species, and taking into account social and economic factors;
  - (iv) Control of noxious aquatic species that may destroy some other water species;
- (f) Protection of freshwater living resources
  - (i) Control and monitoring of water quality to allow for the sustainable development of inland fisheries;

- (ii) Protection of ecosystems from pollution and degradation for the development of freshwater aquaculture projects;
- (g) Monitoring and surveillance of water resources and waters receiving wastes
- (i) Establishment of networks for the monitoring and continuous surveillance of waters receiving wastes and of point and diffuse sources of pollution;
- (ii) Promotion and extension of the application of geographical information systems environmental impact assessments;
- (iii) Surveillance of pollution sources to improve the compliance with standards and regulations and to regulate the issue of discharge permits;
- (iv) Monitoring of the utilization of chemicals in agriculture that may have an adverse environmental effect;
- (v) Rational land use to prevent land degradation, erosion and siltation of lakes and other water bodies;
- (h) Development of national and international legal instruments for water quality protection

Protection of the quality of water resources may require the development of national or international legal instruments, as appropriate, particularly for:

- (i) Monitoring and control of pollution and its effects in national and transboundary waters;
- (ii) Control of long-range atmospheric transport of pollutants;
- (iii) Control of accidental and/or deliberate spills in national and/or transboundary water bodies;
- (iv) Environmental impact assessment.

#### Means of implementation

##### Financing and cost evaluation

45. [Funds for pollution control have to be generated ultimately within each river basin and/or country through cost recovery and economic or fiscal instruments. The "polluter pays principle" has to be adopted in conformity with the notion of water as a social and an economic good. Total costs, including those financed nationally, are estimated at about US\$ 1.0 billion annually for the period 1993 to 2000. Of this amount, about US\$ 330 million would be needed annually from international sources.

46. The assessment of global environmental issues also includes water quality and aquatic ecosystems monitoring and assessment. River monitoring for global flux estimates is covered under programme area B already, and the necessary funds indicated there. About US\$ 10 million annually would be needed in addition to this to strengthen international institutions. The total financing requirement for this programme area amounts to US\$ 340 million annually.]

#### Scientific and technological means

47. States should undertake cooperative research projects to develop solutions to technical problems that are appropriate for the conditions in each watershed or country. States should consider strengthening and developing national research centres linked through networks, supported by regional water research institutes. The North-South twinning of research centres and field studies by international water research institutions should be actively promoted. It is important that a minimum percentage of funds for water resource development projects is allocated to research and development, particularly in externally funded projects.

48. Monitoring and assessment of complex aquatic systems often require multidisciplinary studies involving several institutions and scientists in a joint programme. International water quality programmes, such as GEMS/WATER, should be oriented towards the water quality of developing countries. User-friendly software, GIS and GRID methods should be developed for the handling, analysis and interpretation of monitoring data and for the preparation of management strategies.

#### Human resource development

49. Innovative approaches should be adopted for professional and managerial staff training in order to cope with changing needs and challenges. Flexibility and adaptability to emerging water pollution issues should be developed. Training activities should be undertaken periodically at all levels within the organizations responsible for water quality management, and innovative teaching techniques adopted for specific aspects of water quality monitoring and control, including development of training skills, in-service training, problem-solving workshops and refresher training courses.

50. Suitable approaches include strengthening and improving the human resource capabilities of local governments in managing water protection, treatment and use, particularly in urban areas, and the establishment of national and regional technical and engineering courses on water quality protection and control subjects at existing schools, and education/training courses for laboratory and field technicians, women and other water user groups for water resources protection and conservation.

Capacity-building

51. The effective protection of water resources and ecosystems from pollution requires considerable upgrading of most countries' present capacities. Water quality management programmes require a certain minimum infrastructure and staff to identify and implement technical solutions and to enforce regulatory action. One of the key problems today and for the future is the sustained operation and maintenance of these facilities. In order not to allow resources gained from previous investments to deteriorate further, immediate action is required in a number of areas.

D. Drinking water supply and sanitation

Basis for action

52. Safe water supplies and environmental sanitation are vital for protecting the environment, improving health and alleviating poverty. Safe water is also crucial to many traditional and cultural activities. An estimated 80 per cent of all diseases and over one third of deaths in developing countries are caused by the consumption of contaminated water, and on average as much as one tenth of each person's productive time is sacrificed to water-related diseases. Concerted efforts during the 1980s brought water and sanitation services to hundreds of millions of the world's poorest people. The most outstanding of these efforts is the launching in 1981 of the United Nations International Drinking Water Supply and Sanitation Decade, which resulted from the Mar del Plata Action Plan adopted by the United Nations Water Conference in 1977. The commonly agreed premise was that "all peoples, whatever their stage of development and their social and economic conditions, have the right to have access to drinking water in quantities and of a quality equal to their basic needs". The target of the Decade was to provide safe drinking water and sanitation to underserved urban and rural areas by 1990. But even the unprecedented progress achieved during the Decade was not enough. One in three people in the developing world still lacks these two most basic requirements for health and dignity. It is also recognized that human excreta and sewage are important causes of the deterioration of water quality in developing countries, and the introduction of available technologies, including appropriate technologies, and the construction of sewage treatment facilities could bring significant improvement.

Objectives

53. The New Delhi Statement formalized the need to provide, on a sustainable basis, access to safe water in sufficient quantities and proper sanitation for all, emphasizing the "some for all rather than more for some" approach. Four guiding principles provide for the programme objectives:

(a) Protection of the environment and safeguarding of health through the integrated management of water resources and liquid and solid wastes;

(b) Institutional reforms promoting an integrated approach and including changes in procedures, attitudes and behaviour, and the full participation of women at all levels in sector institutions;

(c) Community management of services, backed by measures to strengthen local institutions in implementing and sustaining water and sanitation programmes;

(d) Sound financial practices, achieved through better management of existing assets, and widespread use of appropriate technologies.

54. Past experience has shown that specific targets should be set by each individual country. At the World Summit for Children, in September 1990, heads of State or Government called for both universal access to water supply and sanitation and the eradication of guinea worm disease by 1995. Even for the more realistic target of achieving full coverage in water supply by 2025, it is estimated that annual investments must reach double the current levels. One realistic strategy to meet present and future needs, therefore, is to develop lower cost but adequate services that can be implemented and sustained at the community level.

#### Activities

55. All States, according to their capacity and available resources, and through bilateral or multilateral cooperation, including through the United Nations and other relevant organizations, as appropriate, could implement the following activities:

##### (a) Environment and health

- (i) Establishment of protected areas for sources of drinking water supply;
- (ii) Sanitary disposal of excreta and sewage, using appropriate systems to treat waste waters in urban and rural areas;
- (iii) Expansion of urban and rural water supply and, in addition to the reticulated water supply system, develop and expand rainwater catchment systems, particularly on small islands;
- (iv) Building and expansion, where appropriate, of sewage treatment facilities and drainage systems;
- (v) Treatment and safe reuse of domestic and industrial waste waters in urban and rural areas;
- (vi) Control of water-associated diseases;

##### (b) People and institutions

- (i) Strengthening the functioning of Governments in water resources management and, at the same time, giving full recognition to the role of local authorities;
- (ii) Encouraging water development and management based on a participatory approach, involving users, planners and policy makers at all levels;
- (iii) Applying the principle that decisions are taken at the lowest appropriate level, with public consultation and involvement of users in the planning and implementation of water projects;

- (iv) Human resource development at all levels, including special programmes for women;
  - (v) Broad-based education programmes, with particular emphasis on hygiene, local management and risk reduction;
  - (vi) [International support mechanisms for programme funding, implementation, and follow-up];
- (c) National and community management
- (i) Support and assist communities in managing their own systems on a sustainable basis;
  - (ii) Encouragement of the local population, especially women, youth, indigenous people and local communities in water management;
  - (iii) Linkages between national water plans and community management of local waters;
  - (iv) Integration of community management of water in the context of overall planning;
  - (v) Promotion of primary health and environmental care at the local level, including training for local communities in appropriate water management techniques and primary health care;
  - (vi) Assisting service agencies to be more cost-effective and responsive to consumer needs;
  - (vii) More attention to be given to underserved rural and low-income peri-urban areas;
  - (viii) Rehabilitation of defective systems, reduction of wastage and safe reuse of water and waste water [through additional international financing];
  - (ix) Programmes for rational water use and ensured operation and maintenance;
  - (x) Research and development of appropriate technical solutions;
  - (xi) [International efforts of solidarity by the developed countries with the developing countries in granting new and additional financial resources in accordance with General Assembly resolution 44/228 in order to install treatment plants for urban waste waters];



(d) Awareness creation and public information/participation

- (i) Strengthening of sector monitoring and information management at subnational and national levels;
- (ii) Annual processing, analysis and publishing of monitoring results at national and local levels as a sector management and advocacy/awareness creation tool;
- (iii) Use of limited sector indicators at regional and global levels to promote the sector and raise funds;
- (iv) Improve sector coordination, planning and implementation, with assistance of improved monitoring and information management, to increase the sector's absorptive capacity, particularly in community-based self-help projects.

Means of implementation

Financing and cost evaluation

56. [Accelerated development is necessary to reach the desired coverage of water supply and basic sanitation services by the year 2000. The rate of investment for the years until 2000 has, at least, to be doubled to a total of US\$ 20 billion annually to achieve complete service coverage. The external component should be maintained at no less than one third of this, i.e. at about US\$ 6.7 billion annually. The improved operation, maintenance and management of systems and the full utilization of the investments made requires the allocation of external support in the order of US\$ 0.7 billion. The total external funding needs until the year 2000 are, therefore, US\$ 7.4 billion annually.]

Scientific and technological means

57. To ensure the feasibility, acceptability and sustainability of planned water supply services, adopted technologies should be responsive to the needs and constraints imposed by the conditions of the community concerned. Thus, design criteria involve technical, health, social, economic, provincial, institutional and environmental aspects that determine the characteristics, magnitude and cost of the planned system. Relevant international support programmes should address the developing countries concerning, inter alia:

- (a) Pursuit of low-cost scientific and technological means, as far as practicable;
- (b) Utilization of traditional and indigenous practices, as far as practicable, to maximize and sustain local involvement;
- (c) Assistance to country-level technical/scientific institutes to facilitate curricula development to support fields critical to the water and sanitation sector.

#### Human resource development

58. To effectively plan and manage water supply and sanitation at the national, provincial, district and community level, and to utilize funds most effectively, trained professional and technical staff must be developed within each country in sufficient numbers. To do this, countries must establish manpower development plans, taking into consideration present requirements and planned developments. Subsequently, the development and performance of country-level training institutions should be enhanced so that they can play a pivotal role in capacity-building. It is also important that countries provide adequate training for women in the sustainable maintenance of equipment, water resource management and environmental sanitation.

#### Capacity-building

59. The implementation of water supply and sanitation programmes is a national responsibility. To varying degrees, responsibility for the implementation of projects and the operating of systems should be delegated to all administrative levels right down to the community and individual served. This also means that national authorities, together with the agencies and bodies of the United Nations system and other external support agencies in providing support to national programmes, should develop mechanisms and procedures to collaborate at all levels. This is particularly important if full advantage is to be taken of community-based approaches and self-reliance as tools to sustainability. This entails a high degree of community participation, involving women, in the conception, planning, decision-making, implementation and evaluation of projects for domestic water supply and sanitation.

60. Overall national capacity-building at all administrative levels, including institutional development, coordination, human resources, community participation, health and hygiene education, literacy etc., have to be developed as fundamental to any efforts to improve health and socio-economic development through water supply and sanitation and their impact on the human environment. Capacity-building should therefore be one of the underlying keys in implementation strategies. Institutional capacity-building should be considered as equally important as sector supplies and equipment, so that funds can be directed to both aspects. This can be undertaken at the planning or programme/project formulation stage with clear definition of objectives and targets in this regard. In this respect, technical cooperation among developing countries is crucial, owing to available wealth of information and experience, and to avoid reinventing the wheel. This has proved cost-effective in many country projects already.

E. Water and sustainable urban development

Basis for action

61. Early in the next century, more than half of the world's population will be living in urban areas. By 2025, that proportion will have risen to 60 per cent, some 5 billion people. Rapid urban population growth and industrialization are putting severe strains on the water resources and environmental protection capabilities of many cities. Special attention needs to be given to the growing effects of urbanization on water demands and usage, and on the critical role played by local and municipal authorities in managing the supply, use and overall treatment of water, particularly in developing countries for which special support is needed. Scarcity of freshwater resources and the escalating costs of developing new resources have a considerable impact on national industrial, agricultural and human settlement development and economic growth. Better management of urban water resources, including the elimination of unsustainable consumption patterns, can make a substantial contribution to the alleviation of poverty and improvement of the health and quality of life of the urban and rural poor. A high proportion of large urban agglomerations are located around estuaries and in coastal zones, leading to pollution from municipal and industrial discharges combined with overexploitation of available water resources and threatening the marine environment and the supply of freshwater resources.

Objectives

62. The development objective of this programme is to support local and central governments' efforts and capacities to sustain national development and productivity through environmentally sound management of water resources for urban use. Supporting this objective is the identification and implementation of strategies and actions to ensure the continued supply of affordable water for present and future needs, and to reverse current trends of resource degradation and depletion.

63. <sup>\*</sup> [All States, according to their capacity and available resources, and through bilateral or multilateral cooperation, including through the United Nations and other relevant organizations, as appropriate, could set the following targets:

(a) By the year 2000<sup>1</sup>, ensure that all urban residents have access to at least 40 litres per capita per day of safe water and that 75 per cent of the urban population are provided with on-site or community facilities for sanitation;

(b) By the year 2000<sup>1</sup>, have established and applied quantitative and qualitative discharge standards for municipal and industrial effluents;

(c) By the year 2000<sup>1</sup>, have 75 per cent of solid waste generated in urban areas collected and recycled or disposed of in an environmentally safe way.]

\* See note re para 33

<sup>1</sup> See footnote on para 33

Activities

64. All States, according to their capacity and available resources, and through bilateral or multilateral cooperation, including through the United Nations and other relevant organizations, as appropriate, could implement the following activities:

(a) Protection of water resources from depletion, pollution and degradation

- (i) Introduction of sanitary waste disposal facilities based on environmentally sound low-cost and upgradable technologies;
- (ii) Implementation of urban storm water runoff and drainage programmes;
- (iii) Promotion of recycling and reuse of waste water and solid wastes;
- (iv) Control of industrial pollution sources to protect water resources;
- (v) Protection of watersheds from depletion and degradation of their forest cover and from harmful upstream activities;
- (vi) Promotion of research into the contribution of forests to sustainable water resources development;
- (vii) Encouragement of best management practices for the use of agrochemicals with a view to minimizing their impact on water resources;

(b) Efficient and equitable allocation of water resources

- (i) Reconciliation of city development planning with the availability and sustainability of water resources;
- (ii) Satisfaction of the basic water needs of the urban population;
- (iii) Introduction of water tariffs, by taking into account the circumstances in each country and where affordable, which reflect the marginal and opportunity cost of water, especially for productive activities;

(c) Institutional/legal/management reforms

- (i) Adoption of a city-wide approach to the management of water resources;

- (ii) Promotion at the national and local level of the elaboration of land use plans that give due consideration to water resources development;
  - (iii) Utilization of the skills and potential of non-governmental organizations and the private sector and local people, taking into account the public and strategic interests in water resources;
- (d) Promotion of public participation
- (i) Initiation of public awareness campaigns to encourage the public towards rational water utilization;
  - (ii) Sensitization of the public for the protection of water quality within the urban environment;
  - (iii) Promotion of public participation for the collection, recycling and elimination of wastes;
- (e) Support to local capacity-building
- (i) Development of legislation and policies to promote investments in urban water and waste management, reflecting the major contribution of cities to national economic development;
  - (ii) Provision of seed money and technical support to the local handling of materials supply and services;
  - (iii) Encouragement, to the extent possible, of autonomy and financial viability of city water, solid waste and sewerage utilities;
  - (iv) Creation and maintenance of a cadre of professionals and semi-professionals, for water, waste water and solid waste management;
- (f) Provision of enhanced access to sanitary services
- (i) Implement water, sanitation and waste management programmes focused on the urban poor;
  - (ii) Make low-cost water supply and sanitation technology choices available;
  - (iii) Base choice of technology and service levels on user preferences and willingness to pay;
  - (iv) Mobilize and facilitate the active involvement of women in water management teams;

- (v) Encourage and equip local water association and water committees to manage community water supply systems and communal latrines, with technical back-up available when required;
- (vi) Consider the merits and practicality of rehabilitating existing malfunctioning systems and correcting operation and maintenance inadequacies.

#### Means of implementation

##### Financing and cost evaluation

65. [Total costs incurring for the installation of sewage collection and treatment facilities amount to about US\$ 9 billion annually, including about US\$ 1.8 billion in external financing. The needs for urban drainage programmes are also about US\$ 9 billion annually, including about US\$ 2.3 billion in international funding. Operation and maintenance and related capacity-building measures require about US\$ 1.8 billion annually, including about US\$ 0.4 billion in international financial support. The total external financing requirements amount to about US\$ 4.5 billion annually.]

##### Scientific and technological means

66. The 1980s saw considerable progress in the development and application of low-cost water supply and sanitation technologies. The programme envisages continuation of this work, with particular emphasis on development of appropriate sanitation and waste disposal technologies for low-income high-density urban settlements. There should also be international information exchange, to ensure a widespread recognition among sector professionals of the availability and benefits of appropriate low-cost technologies. The public awareness campaigns will also include components to overcome user resistance to "second class" services, emphasizing the benefits of reliability and sustainability.

##### Human resource development

67. Implicit in virtually all the elements of this programme is the need for progressive enhancement of the training and career development of personnel at all levels in sector institutions. Specific programme activities will involve the training and retention of staff with skills in community involvement, low-cost technology, financial management, and integrated planning of urban water resources management. Special provision should be made for mobilizing and facilitating the active participation of women, youth, indigenous people and local communities in water management teams, and for supporting the development of water associations and water committees, with appropriate training of treasurers, secretaries, caretakers etc. Special education and training programmes for women should be launched with regard to the protection of water resources and water quality within urban areas.

### Capacity-building

68. In combination with human resource development, strengthening of institutional, legislative and management structures are key elements of the programme. A prerequisite for progress in enhancing access to water and sanitation services is the establishment of an institutional framework that ensures that the real needs and potential contributions of currently unserved populations are reflected in urban development planning. The multisectoral approach, which is a vital part of urban water resources management, requires institutional linkages at national and city levels, and the programme includes proposals for establishing intersectoral planning groups. Proposals for greater pollution control and prevention depend for their success on the right combination of economic and regulatory mechanisms, backed by adequate monitoring and surveillance and supported by enhanced capacity to address environmental issues on the part of local governments.

69. Establishment of appropriate design standards, water quality objectives and discharge consents is therefore among the proposed activities. The programme also includes support for strengthening the capability of water and sewerage agencies, and for developing their autonomy and financial viability. Operation and maintenance of existing water and sanitation facilities has been recognized as a serious shortcoming in many countries. Technical and financial support is needed to help countries to correct present inadequacies and build up the capacity to operate and maintain rehabilitated and new systems.

### F. Water for sustainable food production and rural development

#### Basis for action

70. Sustainability of food production increasingly depends on sound and efficient water use and conservation practices consisting primarily of irrigation development and management, including water management in rainfed areas, livestock water supply, inland fisheries and agro-forestry. Achieving food security is a high priority in many countries, and agriculture must not only provide food for rising populations, but also save water for other uses. The challenge is to develop and apply water-saving technology and management methods, and, through capacity-building, enable communities to introduce institutions and incentives for the rural population to adopt new approaches, for both rainfed and irrigated agriculture. The rural population must also have better access to a potable water supply and to sanitation services. It is an immense task, but not an impossible one, provided appropriate policies and programmes are adopted at all levels - local, national and international. While significant expansion of the area under rainfed agriculture has been achieved during the past decade, the productivity response and sustainability of irrigation systems have been constrained by problems of water-logging and salinization. Financial and market constraints are also a common problem. Soil erosion, mismanagement and overexploitation of natural resources and acute competition for water, have all influenced the extent of poverty, hunger

and famine in the developing countries. Soil erosion caused by overgrazing of livestock is also often responsible for the siltation of lakes. The development of irrigation schemes is most often not supported by environmental impact assessments identifying hydrological consequences within watersheds and owing to interbasin transfers, nor by the assessment of social impacts on peoples in river valleys.

71. The non-availability of water supplies of suitable quality is a significant limiting factor to livestock production in many countries and improper disposal of animal wastes can in certain circumstances result in pollution of water supplies for both humans and animals. The drinking water requirements of livestock vary according to species and environment in which they are kept. It is estimated that the current global livestock drinking water requirement is about 60 billion litres a day and, based on livestock population growth estimates, this daily requirement is predicted to increase by 0.4 billion litres per annum in the foreseeable future.

72. Freshwater fisheries in lakes and streams are an important source of food and protein. Fisheries of inland waters should be managed to maximize the yield of aquatic food organisms in an environmentally sound manner. This requires the conservation of water quality and quantity, as well as the functional morphology of the aquatic environment. On the other hand, fishing and aquaculture themselves may damage the aquatic ecosystem and hence their development should conform to guidelines for impact limitation. Present levels of production from inland fisheries, both from fresh and brackish water, are about 7 million tons per year and could increase to 16 million tons per year by the year 2000; however, any increase in environmental stress could jeopardize this rise.

#### Objectives

72 (bis). The key strategic principles for holistic and integrated environmentally sound management of water resources in the rural context are:

(a) Water should be regarded as a finite resource (that has an economic value) with significant social and economic implications, taking into consideration the importance of meeting basic needs;

(b) Local communities must participate in all phases of water management, ensuring the full involvement of women in view of their crucial role in the practical day-to-day supply, management and use of water;

(c) Water resource management must be developed within a comprehensive set of policies for (i) human health; (ii) food production, preservation and distribution; (iii) disaster mitigation plans; (iv) environmental protection and conservation of the natural resource base;

(d) The need to recognize and actively support the role of rural populations, with particular emphasis on women.



73. An International Action Programme on Water and Sustainable Agricultural Development (IAP-WASAD) has been initiated by FAO in cooperation with other international organizations. The main objective of the Action Programme is to assist developing countries in planning, developing and managing water resources on an integrated basis to meet the present and future needs for agricultural production, taking into account environmental considerations.

74. The Action Programme has developed a framework for sustainable water use in the agricultural sector and identified priority areas for action at national, regional and global levels. Quantitative targets for new irrigation development, improvement of existing irrigation schemes and reclamation of waterlogged and salinized lands through drainage for 130 developing countries are estimated on the basis of food requirements, agro-climatic zones and availability of water and land.

75. The FAO global projections for irrigation, drainage and small-scale water programmes by the year 2000 for 130 developing countries are:

- (a) 15.2 million hectares of new irrigation development;
- (b) 12 million hectares of improvement/modernization of existing schemes;
- (c) 7 million hectares installed with drainage and water control facilities;
- and (d) 10 million hectares of small-scale water programmes and conservation.

76. The development of new irrigation areas at the above level may give rise to environmental concerns as this may imply the destruction of wetlands, water pollution, increased sedimentation and a reduction in biodiversity. Therefore, new irrigation schemes should be accompanied by an environmental impact assessment in case significant negative environmental impacts are expected and also depending upon the scale of the scheme. When considering proposals for new irrigation schemes, consideration should also be given to a more rational exploitation, and increasing the efficiency or productivity, of any existing schemes capable of serving the same localities. Technologies for new irrigation schemes should be thoroughly evaluated, including their potential conflicts with other land uses. The active involvement of water users groups is a supporting objective.

76 (bis). It should be ensured that rural communities of all countries, according to their capacities and available resources and taking advantage of international cooperation as appropriate, will have access to safe water in sufficient quantities and adequate sanitation to meet their health needs and maintain the essential qualities of their local environments.

77. The objectives with regard to water management for inland fisheries and aquaculture include conservation of water quality and quantity requirements for optimum production and prevention of water pollution by aquacultural activities. The Action Programme seeks to assist member countries in managing the fisheries of inland waters through the promotion of sustainable management of capture fisheries as well as the development of environmentally sound approaches to intensification of aquaculture.

78. The objectives with regard to water management for livestock supply are twofold: provision of adequate amounts and safeguarding of drinking-water quality in accordance with the specific needs of different animal species. This entails maximum salinity tolerance levels and the absence of pathogenic organisms. No global targets can be set owing to large regional and intra-country variations.

Activities

79. All States, according to their capacity and available resources, and through bilateral or multilateral cooperation, including through the United Nations and other relevant organizations, as appropriate, could implement the following activities:

(a) Water supply and sanitation for the unserved rural poor

- (i) Establish national policies and budget priorities with regard to increasing service coverage;
- (ii) Promote appropriate technologies;
- (iii) Introduce suitable cost-recovery mechanisms, taking into account efficiency and equity through demand management mechanisms;
- (iv) Promote community ownership and rights to water supply and sanitation facilities;
- (v) Establish monitoring and evaluation systems;
- (vi) Strengthen the rural water supply and sanitation sector with emphasis on institutional development, efficient management and an appropriate framework for financing of the services;
- (vii) Increase hygiene education and eliminate disease transmission foci;
- (viii) Adopt appropriate technologies for water treatment;
- (ix) Adopt wide-scale environmental management measures to control disease vectors;

(b) Water use efficiency

- (i) Increase of efficiency and productivity in agricultural water use for better utilization of limited water resources;
- (ii) Strengthening of water and soil management research under irrigation and rainfed conditions;

- (iii) Monitoring and evaluation of irrigation project performance to ensure, inter alia, the optimal utilization and proper maintenance of the project;
  - (iv) Support to water users groups with a view to improving management performance at the local level;
  - (v) Supporting the appropriate use of relatively brackish water for irrigation;
- (c) Waterlogging, salinity control and drainage
- (i) Introduction of surface drainage in rainfed agriculture to prevent temporary waterlogging and flooding of lowlands;
  - (ii) Introduction of artificial drainage in irrigated and rainfed agriculture;
  - (iii) Encouragement of conjunctive use of surface and groundwaters, including monitoring and water balance studies;
  - (iv) Practising of drainage in irrigated areas of arid and semi-arid regions;
- (d) Water quality management
- (i) Establishment and operation of cost-effective water quality monitoring systems for agricultural water uses;
  - (ii) Prevention of adverse effects of agricultural activities on water quality for other social and economic activities and on wetlands, inter alia, through optimal use of on-farm inputs and the minimization of the use of external inputs in agricultural activities;
  - (iii) Establishment of biological, physical and chemical water quality criteria for agricultural water users and for marine and riverine ecosystems;
  - (iv) ~~Prevention~~ <sup>Minimisation</sup> of soil run-off and sedimentation;
  - (v) Proper disposal of sewage from human settlements and of manure produced by intensive livestock breeding;
  - (vi) Minimize adverse effects from agricultural chemicals by use of integrated pest management;
  - (vii) Education of communities about the pollution impacts of the use of fertilizers and chemicals on water quality, food safety and human health risks;

(e) Water resources development programmes

- (i) Development of small-scale irrigation, water supply for humans and livestock and for water and soil conservation;
- (ii) Formulation of large-scale and long-term irrigation development programmes, taking into account their effects on the local level, the economy and the environment;
- (iii) Promotion of local initiatives for the integrated development and management of water resources;
- (iv) Provision of adequate technical advice and support and enhancement of institutional collaboration at the local community level;
- (v) Promotion of a farming approach for land and water management that takes account of the level of education, the capacity to mobilize local communities, and the ecosystem requirements of arid and semi-arid regions;
- (vi) Planning and development of multi-purpose hydro-electric power schemes, making sure that environmental concerns are duly taken into account;

(f) Scarce water resources management

- (i) Development of long-term strategies and practical implementation programmes for agricultural water use under scarcity conditions with competing demands for water;
- (ii) Recognition of water as a social, economic and strategic good in irrigation planning and management;
- (iii) Formulation of specialized programmes focused on drought preparedness, with emphasis on food scarcity and environmental safeguards;
- (iv) Promotion and enhancement of waste water reuse in agriculture;

(g) Water supply for livestock

- (i) Improve quality of water available to livestock, taking into account their tolerance limits;
- (ii) Increase the quantity of water sources available to livestock, and in particular those in extensive grazing systems, in order to both reduce the distance needed to travel for water and to prevent overgrazing around water sources;

- (iii) Prevent contamination of water sources with animal excrement in order to prevent the spread of diseases and in particular zoonosis;
  - (iv) Encourage multiple use of water supplies through promotion of integrated agro-livestock-fishery systems;
  - (v) Encourage water spreading schemes to increase water retention of extensive grasslands to stimulate forage production and prevent run-off;
- (h) Inland fisheries
- (i) Develop the sustainable management of fisheries as part of national water resources planning;
  - (ii) Study specific aspects of the hydro-biology and environmental requirements of key inland fish species in relation to varying water regimes;
  - (iii) Prevent, mitigate or rehabilitate aquatic environments subjected to modification by other users for the sustainable use and conservation of biological diversity of living aquatic resources;
  - (iv) Develop and disseminate environmentally sound water resources development and management methodologies for the intensification of fish yield from inland waters;
  - (v) Establish and maintain adequate systems for the collection and interpretation of data on water quality, quantity and channel morphology related to management and the state of living aquatic resources, including fisheries;
- (i) Aquaculture development
- (i) Develop environmentally sound aquaculture technologies that are compatible with local, regional and national water resources management plans and taking into consideration social factors;
  - (ii) Introduce appropriate aquaculture techniques and related water development and management practices in countries not yet experienced in aquaculture;
  - (iii) Assess environmental impacts of aquaculture with specific reference to commercialized culture units and potential water pollution from processing centres;

- (iv) Evaluate economic feasibility of aquaculture in relation to alternative use of water, taking into consideration the use of marginal quality water and investment and operational requirements.

Means of implementation

Financing and cost evaluation

80. [During the period 1993 to 2000, total annual costs for investments and technical support in this programme area are estimated at about US\$ 13.2 billion, of which about US\$ 4.5 billion would have to come from international sources. This includes also about US\$ 10 million annually to strengthen international, global and regional organizations.]

Scientific and technological means

81. There is an urgent need for countries to monitor water resources and water quality, water and land use and crop production; compile inventories of type and extent of agricultural water development and their present and future contributions to sustainable agricultural development; evaluate the potential for fisheries and aquaculture development; and improve the availability and dissemination of data to planners, technicians, farmers and fishermen. Priority requirements for research are as follows:

- (a) Identify critical areas for water-related adaptive research;
- (b) Strengthen the adaptive research capacities of institutions in developing countries;
- (c) Enhance translation of water-related farming and fishing systems research results into practical and accessible technologies and provide the support needed for their quick adoption at the field level.

82. Transfer of technology, both horizontal and vertical, needs to be strengthened. Mechanisms to provide credit, input supplies, markets, appropriate pricing and transportation must be developed jointly by countries and external support agencies. Integrated rural water supply infrastructure should be expanded for multiple uses and assist in developing the rural economy including facilities for water-related education and training and support services for agriculture.

Human resource development

83. Education and training of human resources should be actively pursued at the national level through: (a) assessment of current and long-term human resources management and training needs; (b) establishment of a national policy for human resources development; and (c) initiation and implementation of training programmes for staff at all levels as well as for farmers. The necessary actions are as follows:

- (a) Assess training needs for agricultural water management;
- (b) Increase formal and informal training activities;
- (c) Develop practical training courses for improving the ability of extension services to disseminate technologies and strengthen farmers' capabilities, with special reference to small-scale producers;
- (d) Train staff at all levels, including farmers, fishermen and members of local communities, with particular reference to women;
- (e) Increase the opportunities for career development to enhance the capabilities of administrators and officers at all levels involved in land and water-management programmes.

Capacity-building

84. The importance of a functional and coherent institutional framework at the national level to promote water and sustainable agricultural development has been generally fully recognized at present. In addition, an adequate legal framework of rules and regulations should be in place to facilitate actions on agricultural water use, drainage, water quality management, small-scale water programmes and the functioning of water users' and fishermen's associations. Legislation specific to the needs of the agricultural water sector should be consistent with, and stem from, general legislation for the management of water resources. Actions should be pursued in the following areas:

- (a) Improve agricultural-, fisheries- and rural development-related water use policies and legal frameworks for implementing such policies;
- (b) Review, strengthen and restructure, if required, existing institutions in order to enhance their capacities in water-related activities, while recognizing the need to manage water resources at the lowest appropriate level;
- (c) Review and strengthen, where necessary, organizational structure, functional relationships and linkages among ministries and departments within a ministry;
- (d) Provide specific measures that require support for institutional strengthening, including long-term programme budgeting, staff training, incentives, mobility, equipment and coordination mechanisms;
- (e) Enhance involvement of the private sector, where appropriate, in human resource development and provision of infrastructure;
- (f) Transfer existing and new water use technologies by creating mechanisms for cooperation and information exchange among national and regional institutions.

G. Impacts of climate change on water resources

Basis for action

85. There is uncertainty in the prediction of climate change at the global level; the uncertainties increase greatly at the regional, national and local levels and yet it is at the national level that the most important decisions would need to be made. Higher temperatures or decreased precipitation would lead to decreased water supplies and increased water demands, and it may cause deterioration of the quality of freshwater bodies, putting strains on the already fragile balance between supply and demand in many countries. Even where precipitation might increase, there is no guarantee that it would occur at the time of year when it can be used and in addition there may be a likelihood of increased flooding. Any rise in sealevel will often cause the intrusion of salt water in estuaries, small islands and coastal aquifers and the flooding of low-lying coastal areas; this puts low-lying countries at great risk.

86. The Ministerial Declaration of the Second World Climate Conference states that "the potential impact of such climate change could pose an environmental threat of an up to now unknown magnitude; and could even threaten survival in some small island States and in low-lying coastal, arid and semi-arid areas". The Conference recognized that among the most important impacts of climate change were its effects on the hydrological cycle and water management systems and, through these, on socio-economic systems. Increase in incidence of extremes, such as floods and droughts, would cause increased frequency and severity of disasters. The Conference therefore called for a strengthening of the necessary research and monitoring programmes and the exchange of relevant data and information, these actions to be undertaken at the national, regional and international levels.

Objectives

87. The very nature of this topic calls first and foremost for more information about and greater understanding of the threat that is being faced. [Subject to the outcome of the Intergovernmental Negotiating Committee on a Framework Convention for Climate Change] this may be translated into the following objectives:

(a) To understand and quantify the threat of the impact of climate change on freshwater resources;

(b) To facilitate the implementation of effective national counter-measures, as and when the threatening impact is seen as sufficiently confirmed to justify such action;

(c) To study the potential impacts of climate change on areas prone to droughts and floods.



### Activities

88. All States, according to their capacity and available resources, and through bilateral or multilateral cooperation, including through the United Nations and other relevant organizations, as appropriate, could implement the following activities:

(a) Monitor the hydrological regime, including soil moisture, groundwater balance, penetration and transpiration of water quality, and related climate factors, especially in those regions and countries most likely to suffer from the adverse effects of climate change, where the localities vulnerable to these effects should be defined;

(b) Develop and apply techniques and methodologies for assessing the potential adverse effects of climate change, through changes in temperature, precipitation and sealevel rise on freshwater resources and the flood risk;

(c) Initiate case-studies to establish whether there are linkages between climate changes and the current occurrences of droughts and floods in certain regions;

(d) Assess the resulting social, economic and environmental impacts;

(e) Develop and initiate response strategies to counter the adverse effects that are identified, including changing groundwater levels, and the mitigation of saline intrusion into aquifers;

(f) Develop agricultural activities based on brackish water use;

(g) Contribute to the research activities under way within the framework of current international programmes.

### Means of implementation

#### Financing and cost evaluation

89. [During the years 1993 to 2000, national programmes to assess and mitigate the effects of climate change will incur costs of about US\$ 100 million annually, of which about US\$ 40 million would have to come from international sources. Joint international research and case-studies require an additional US\$ 4 million annually.]

#### Scientific and technological means

90. Monitoring of climate change and its impact on freshwater bodies must be closely integrated with national and international programmes for monitoring the environment, in particular those concerned with the atmosphere, as discussed under other sections of Agenda 21, and with the hydrosphere, as discussed under programme area B above. The analysis of data for indication of climate change as a basis for developing remedial measures is a complex

World Climate Programme

task. Extensive research is necessary in this area and due account has to be taken of the work of the International Panel on Climate Change (IPCC), the International Geosphere-Biosphere Programme (IGBP) and other relevant international programmes.

91. The development and implementation of response strategies requires innovative use of technological means and engineering solutions, including the installation of flood and drought warning systems and the construction of new water-resource development projects such as dams, aqueducts, well fields, waste water treatment plants, desalination works, levees, banks and drainage channels. There is also a need for coordinated research networks such as the IGBP/START network.

#### Human resource development

92. The developmental work and innovation depend for their success on good academic training and staff motivation. International projects can help by enumerating alternatives, but each country needs to establish and implement the necessary policies and to develop its own expertise in the scientific and engineering challenges to be faced, plus a body of dedicated individuals who are able to interpret the complex issues concerned for those required to make policy decisions. These specialized personnel need to be trained, hired and retained in service where they can serve their countries in these tasks.

#### Capacity-building

93. There is a need, however, to build a capacity at the national level to develop, review and implement response strategies. Construction of major engineering works and installation of forecasting systems will require significant strengthening of the agencies responsible, whether in the public or the private sector. Most critical is the requirement for a socio-economic mechanism which can review predictions of the impact of climate change and possible response strategies and make the necessary judgements and decisions.

----



General Assembly

Distr.  
LIMITED

A/CONF.151/PC/L.78  
3 April 1992

ORIGINAL: ENGLISH

---

PREPARATORY COMMITTEE FOR THE UNITED  
NATIONS CONFERENCE ON ENVIRONMENT  
AND DEVELOPMENT

Fourth session

New York, 2 March-3 April 1992

Agenda item 2 (c) of plenary

PREPARATIONS FOR THE UNITED NATIONS CONFERENCE ON ENVIRONMENT  
AND DEVELOPMENT ON THE BASIS OF GENERAL ASSEMBLY RESOLUTION  
44/228 AND TAKING INTO ACCOUNT OTHER RELEVANT GENERAL ASSEMBLY  
RESOLUTIONS: CROSS-SECTORAL ISSUES

Proposal submitted by the Chairman

Guidelines for preparation of Agenda 21 for consideration by  
the United Nations Conference on Environment and Development  
in Rio de Janeiro

1. In a number of chapters of Agenda 21 either some or all of the paragraphs in sections on Means of implementation have been bracketed. The brackets were placed not because delegations necessarily disagreed on the texts but because these paragraphs were not negotiated.

2. The paragraphs involved can be divided into two groups:

(a) Paragraphs related to "Financing and cost evaluation", where it is proposed that the paragraphs remain bracketed and that a footnote be added to the document reading as follows:

"These paragraphs contain matters relating to means of implementation, including cost estimates, which are indicative secretariat figures provided pursuant to decision A/CONF.151/PC/L.49\*. They remain in brackets as they have not been negotiated.";

(b) Paragraphs relating to certain actions in areas such as "Scientific and technological means", "Human resource development" and "Capacity building", where it is proposed that the paragraphs which at present are bracketed would remain bracketed with a footnote reading as follows:

"These paragraphs in the sections on means of implementation have not been negotiated. It is expected that their status can be resolved at an early date during the Conference."

3. ~~Paragraphs in the introductions of approved A/CONF.151/PC/L.... documents which are in square brackets will be dropped. If they are not in square brackets they will be retained.~~

4. Introductory paragraphs of a purely procedural nature will be removed.

5. Agenda 21 will be presented in the same chapter order listed in A/CONF.151/PC/100 except that section IV, chapter 7, on regional organizations has been consolidated with other text.

-----

Chairman's & coordinators will go through introductory paragraphs deciding which will be kept & deleted. decision to be taken in Ric.

Form 675-C (5)  
BUREAU OF PRISDEX - PROCEPES  
GENERAL - 1-0000110

## TOXIC CHEMICALS

### **SUMMARY**

PrepCom IV agreed a comprehensive text on Toxic Chemicals, with square brackets only on the financial and technology transfer aspects pending resolution in the wider UNCED debate. All Canadian objectives were met, in particular the key objective of deleting a specific call for the banning of asbestos and organohalogenes; and recognition that various management tools are included in the life-cycle management approach in addition to phase-out and banning.

The chapter is a considerable advancement for international initiatives for management of toxic chemicals.

### **DOCUMENTATION**

A/CONF.151/PC/WG.II/L.30: Agreed Agenda 21 Chapter: Environmentally Sound Management of Toxic Chemicals (replaces PC/100/Add.23).

### **CANADIAN OBJECTIVES**

1. Seek deletion of or amendments to text that would contradict Government policy or that is contrary to Canadian interests, in particular Canada's controlled use policy for asbestos.
2. Seek to ensure that terminology used in the paper is well understood, consistent with use in other fora and does not inappropriately cover non-toxic chemicals or adversely affect activities such as recycling.
3. Seek to ensure that product restrictions, bans and phase-outs, etc. referred to in the paper are those that have been made in order to protect the environment or human health, and that solutions selected must be the most economically feasible and least trade distorting alternatives.
4. Seek to ensure that chemical phase-out or bans are recognised as generally the last steps in chemical risk management programmes, to be used only where continued use of a chemical poses an unreasonable and otherwise unmanageable risk to the environment or human health.

## PREPCOM DISCUSSION

Negotiations on the Toxic Chemicals chapter were prolonged and difficult, partly due to the fact that the Chair was unable to keep discussion controlled. The following paragraphs briefly highlight the most contentious issues.

The key issue for Canada was deletion of text calling for bans or phase-out of asbestos and organohalogenes. Venezuela, the sponsor of the text specifying asbestos and organohalogenes, was extremely rigid in its refusal to change its position despite being completely isolated, and it was not until the final session of the Working Group that text was agreed with no reference to any specific commodity.

After lengthy discussion there was acceptance of Canada's proposal to make it clear throughout the text that product substitution, etc should be a last step that is used for chemicals which pose an unreasonable and otherwise unmanageable risk. To reach this agreement Canada accepted wording that also reflected the EC's position, namely that chemicals that are toxic, persistent and bioaccumulative and that cannot be adequately controlled should be phased out. Both sets of words are included in relevant places in the text.

As in past PrepComs, negotiation of the text dealing with information exchange and the PIC procedures was prolonged and difficult. Canada and other like-minded countries were generally successful in ensuring that the text does not contain commitments to actions that would go beyond the current prior informed consent (PIC) procedures until further experience with PIC is obtained. The role of the GATT in looking at the possibility of legally binding instruments was also a contentious issue. The adopted text refers to GATT (paragraphs 37 and 40(iv)) and other organisations "in their respective areas of competence".

In the Programme Area addressing risk reduction programmes, Canada, Australia, New Zealand (the CANZ group) and the USA all proposed changes aimed at recognizing all aspects of life cycle management of chemicals, including pollution prevention. The text that was agreed to achieves this objective, and is a significant improvement to the document.

Negotiations on the responsibilities of industry resulted in text (paragraph 51) that calls for industry to develop an industry code of principles for international trade in chemicals, adopt responsible care programmes, and adopt community right to know programmes (introduced by the US).

Illegal Traffic proved to be a down-to-the wire issue, largely because the title, which refers to "toxic and dangerous products" created uncertainty about what exactly was being addressed. Several developing countries insisted this wording was sacrosanct because of its origin in GA Resolution 44/228. The adopted text (Programme Area F) defines toxic and dangerous products as "products that are banned, severely restricted, withdrawn or not approved for use or sale by Governments, to protect public health and the environment".

#### **OUTCOME AND ASSESSMENT**

Despite the difficult negotiations, PrepCom IV adopted a clean text on Toxic Chemicals with no square brackets except for those common to all chapters, dealing with financial and technology transfer.

This chapter can be considered a success from Canada's point of view. All Canadian objectives were met. As noted above, the critical achievement was to remove calls for a ban on asbestos and organohalogenes. In addition, the text now highlights the importance of the life-cycle management approach and the various management tools that are included (use restrictions, pollution prevention, etc.) This approach is consistent with that taken in Canadian legislation, particularly the Canadian Environmental and Protection Act. The chapter is as clear as can be expected of a document negotiated by more than 100 countries regarding the terminology used; the main confusion which could have caused straying into uncharted territory--illegal traffic in "toxic and dangerous products"--has been resolved by inclusion in the text of what this phrase refers to.

The chapter as adopted is a considerable advancement for international initiatives for management of toxic chemicals. The main steps in life-cycle management are clearly identified, as are the responsibilities for governments and international organisations. The document should be particularly useful for developing countries when developing and building on their national systems for management of toxic chemicals. The call for coordination of international activities should also increase efficiencies and likely effectiveness of international organisations.

With regard to follow-on work, consistent with the recommendations of the London Meeting of experts on an Intergovernmental Coordinating Mechanism, the important role of the IPCS in chemical management is recognised in the Agenda 21 chapter. The heads of UNEP, WHO and ILO are invited to convene a meeting of governments within a year,



which could be considered the first meeting of the intergovernmental forum recommended by the London meeting.

No further specific action appears to be required of the Interdepartmental Working Group. Ongoing liaison with stakeholders, notably industry, should ensure that the results of PrepCom IV are reported and assessed.

Report prepared by:

Janice Kostash  
UNCED National Secretariat  
953-9304

Further information:

Jim Armstrong  
Environment Canada  
953-1674



General Assembly

Distr.  
GENERAL

A/CONF.151/PC/WG.II/L.30  
30 March 1992

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE  
UNITED NATIONS CONFERENCE ON  
ENVIRONMENT AND DEVELOPMENT  
Fourth session  
New York, 2 March-3 April 1992  
Agenda item 2 (c) of plenary  
Agenda item 4 (d) of Working Group II

PREPARATIONS FOR THE UNITED NATIONS CONFERENCE ON  
ENVIRONMENT AND DEVELOPMENT ON THE BASIS OF GENERAL  
ASSEMBLY RESOLUTION 44/228 AND TAKING INTO ACCOUNT  
OTHER RELEVANT GENERAL ASSEMBLY RESOLUTIONS:  
CROSS-SECTORAL ISSUES

Full title of  
wastes/toxic  
package in  
caps.

—>

ENVIRONMENTALLY SOUND MANAGEMENT OF TOXIC CHEMICALS

/(including prevention of illegal international traffic in  
toxic and dangerous products ~~X()~~/

(Section II, chapter 11 of Agenda 21)

Text submitted by the Chairman on the basis of negotiations  
held on document A/CONF.151/PC/100/Add.23

INTRODUCTION

1. A substantial use of chemicals is essential to meet the social and economic goals of the world community and today's best practice demonstrates that they can be widely used, cost effectively, and with a high degree of safety. However, a great deal remains to be done to assure the environmentally sound management of toxic chemicals, within the principles of sustainable development and improved quality of life for humankind. Two of the major problems, particularly in developing countries, are (a) lack of sufficient scientific information for the assessment of risks entailed by the use of a great number of chemicals; and (b) lack of resources to assess those for which data are at hand.

2. Gross chemical contamination, with grave damage to human health, genetic structures and reproductive outcomes, and the environment, has continued in recent times in some of the world's most important industrial areas. Restoration will require major investment and development of new techniques. The long-range effects of pollution, extending even to the fundamental chemical and physical processes of the Earth's atmosphere and climate, are only recently becoming understood and their importance recognized.

3. A considerable number of international bodies are involved in work on chemical safety. In many countries work programmes for the promotion of chemical safety are in place. Such work has international implications, as chemical risks do not respect national boundaries. However, a significant strengthening of both national and international efforts is needed to achieve an environmentally sound management of chemicals.

4. Six programme areas are proposed:

- A. Expanding and accelerating international assessment of chemical risks
- B. Harmonization of classification and labelling of chemicals
- C. Information exchange on toxic chemicals and chemical risks
- D. Establishment of risk reduction programmes
- E. Strengthening of national capabilities and capacities for management of chemicals
- F. Prevention of illegal international traffic in toxic and dangerous products

In addition, a short final section G deals with the enhancement of cooperation related to several programmes areas.

5. The six programme areas are together dependent for their successful implementation on intensive international work and improved coordination of current international activities, as well as on the identification and application of technical, scientific, educational and financial means, in particular for developing countries. To varying degrees, the programme areas involve hazard assessment (based on the intrinsic properties of chemicals), risk assessment (including assessment of exposure), risk acceptability and risk management.

6. Collaboration on chemical safety between the United Nations Environment Programme (UNEP), the International Labour Organisation (ILO) and the World Health Organization (WHO) in the International Programme on Chemical Safety (IPCS) should be the nucleus for international cooperation on environmentally sound management of toxic chemicals. All efforts should be made to strengthen this programme. Cooperation with other programmes, such as the OECD, EC and other regional and governmental chemical programmes, should be promoted.

7. Increased coordination of United Nations agencies and other international organizations involved in chemicals assessment and management should be further promoted. Within the framework of IPCS, an intergovernmental meeting, convened by the Executive Director of UNEP, was held in London in December 1991 to further explore this matter (see. paras 75 and 76).

8. The broadest possible awareness of chemical risks is a prerequisite for achieving chemical safety. The principle of the community's and workers' right to know should be recognized. However, the right to know the identity of hazardous ingredients should be balanced with industry's right to protect confidential business information. The industry initiative on responsible care and product stewardship should be developed and promoted. Industry should apply adequate standards of operation in all countries in order not to damage human health and the environment. Industry, as referred to in this chapter, ~~should~~ <sup>shall</sup> be taken to include large industrial enterprises and transnational corporations as well as domestic industries.

9. ~~There is international concern over illegal traffic in toxic and dangerous products to the detriment of the environment and public health in all countries, and particularly developing countries. "Illegal traffic" refers to traffic in toxic and dangerous products carried out in contravention of national legislation and international legal instruments and applicable, internationally accepted principles and guidelines.~~ see attached

10. In General Assembly resolution 44/226 of 22 December 1989, the regional commissions were requested, inter alia, to contribute to the prevention of the illegal traffic in toxic and dangerous products by monitoring illegal traffic and making regional assessments of its environmental and health implications. The Assembly also requested the regional commissions to interact among themselves and cooperate with UNEP, with a view to maintaining efficient and coordinated monitoring and assessment of the illegal traffic in toxic and dangerous products.

#### PROGRAMME AREAS

##### A. EXPANDING AND ACCELERATING THE INTERNATIONAL ASSESSMENT OF CHEMICAL RISKS

##### Basis for Action

11. The assessment of risks to human health and environment hazards that a chemical may cause is a prerequisite to planning for its safe and beneficial use. Out of approximately 100,000 chemical substances in commerce and the thousands of substances of natural origin with which human beings come into contact, many substances appear as pollutants and contaminants in food, commercial products and the various environmental media. Fortunately, exposure to most chemicals is rather limited, as most are used in very small amounts. Some 1,500 chemicals cover over 95 per cent of total world production. But a serious problem is that even for a great number of high volume production chemicals, crucial data for risk assessment are often lacking. Within the framework of the OECD chemicals programme such data are now being generated for a number of chemicals.

12. Risk assessment is resource-intensive. It could be made cost-effective by strengthening international cooperation and better coordination, thereby making the best use of available resources and avoiding unnecessary duplication of effort. However, each nation should have a critical mass of technical people with experience in toxicity testing and exposure analysis, which are two important components for risk assessment.

#### Objectives

13. The objectives of the programme area are:

(a) To strengthen international risk assessment. Several hundred priority chemicals or groups of chemicals, including major pollutants and contaminants of global significance, should be assessed by the year 2000, using current selection and assessment criteria;

(b) To produce guidelines for acceptable exposure for a greater number of toxic chemicals, based on peer review and scientific consensus distinguishing between health- or environment-based exposure limits and those relating to socio-economic factors.

#### Activities

##### (a) Management-related activities

14. Governments, through the cooperation of relevant international organizations and industry, where appropriate, should:

- (i) Strengthen and expand programmes on chemical risk assessment within the United Nations system (IPCS (UNEP, ILO, WHO) and the Food and Agriculture Organization of the United Nations (FAO), together with other organizations, including the Organisation for Economic Cooperation and Development (OECD), based on an agreed approach to data quality assurance, application of assessment criteria, peer review and linkages to risk management activities, taking into account the precautionary approach;
- (ii) Promote mechanisms to increase collaboration among Government, industry, academia and relevant non-government organizations, involved in the various aspects of risk assessment of chemicals and related processes, in particular promoting and coordinating research activities to improve understanding of the mechanisms of action of toxic chemicals;
- (iii) Encourage the development of procedures for countries to exchange their assessment reports on chemicals with other countries for use in national chemical assessment programmes.

(b) Data and information

15. Governments, through the cooperation of relevant international organizations and industry, where appropriate, should:

- (i) Give high priority to hazard assessment of chemicals, that is, of their intrinsic properties as the appropriate basis for risk assessment;
- (ii) Generate data necessary for assessment, building on, inter alia, programmes of IPCS (UNEP, WHO, ILO), FAO, OECD, the European Community (EC) and other regions and Governments with established programmes. Industry should participate actively.

16. Industry should provide data for substances produced that are needed specifically for the assessment of potential risks to human health and the environment. Such data should be made available to relevant national competent authorities and international bodies and other interested parties involved in hazard and risk assessment, and to the greatest possible extent to the public also, taking into account legitimate claims of confidentiality.

(c) International and regional cooperation and coordination

17. Governments, through the cooperation of relevant international organizations and industry, where appropriate, should:

- (i) Develop criteria for priority-setting of chemicals of global concern for assessment;
- (ii) Review strategies for assessment of exposure and environmental monitoring to allow for the best use of available resources, to ensure compatibility of data and to encourage coherent national and international strategies for exposure assessment.

Means of implementation

[(a) Financial and cost evaluation

18. Most of the data and methods for chemical risk assessment are generated in the developed countries and an expansion and acceleration of the assessment work will call for a considerable increase in research and safety testing by industry and research institutions. The cost projections address the needs to strengthen the capacities of relevant United Nations bodies and are based on current experience in IPCS. It should be noted that there are considerable costs, often not possible to quantify, that are not included. These comprise costs to industry and Governments of generating the safety data underlying the assessments, the costs to Governments of providing background documents and draft assessment statements to IPCS, IRPTC and OECD. They also include the cost of accelerated work in non-United Nations bodies such as OECD and EC.

19. The estimated international costs, about US\$ 30 million annually, are based on the assumption that a complete evaluation of 500 chemicals will be made in the period 1993-2000.]

(b) Scientific and technological means

20. Major research efforts should be launched in order to improve methods for assessment of chemicals for work towards a common framework for risk assessment and improve procedures for using toxicological and epidemiological data to predict the effects of chemicals on human health and the environment, in order to enable decision makers to adopt adequate policies and measures to reduce risks posed by chemicals.

21. Activities include:

(a) Strengthen research for safe/safer alternatives to toxic chemicals that pose an unreasonable and otherwise unmanageable risk to the environment or human health and those that are toxic, persistent and bio-accumulative and cannot be adequately controlled;

(b) Promote research on, and validation of, methods as a replacement for those using test animals, thus reducing the use of animals for testing purposes;

(c) Promote relevant epidemiological studies with a view to establishing a cause-effect relationship between exposure to chemicals and the occurrence of certain diseases;

(d) Promote ecotoxicological studies with the aim of assessing the risks of chemicals to the environment.

(c) Human resource development

22. International organizations, with the participation of Governments and non-governmental organizations should launch training and education projects involving women and children, who are at greatest risk, in order to enable countries, and particularly developing countries, to make maximum national use of international assessments of chemical risks.

(d) Capacity-building

23. International organizations should, building on past, present and future assessment work, support countries, particularly developing countries, to develop and strengthen risk assessment capabilities at national and regional levels to minimize, and as far as possible control and prevent risk in the manufacturing and use of toxic and hazardous chemicals. Technical cooperation and [financial] support or other contribution should be given to activities aimed at expanding and accelerating the national and international assessment and control of chemical risks to enable the best choice of chemicals.

B. HARMONIZATION OF CLASSIFICATION AND LABELLING OF CHEMICALS

Basis for action

24. Adequate labelling of chemicals and the dissemination of safety data sheets such as ICSCs (International Chemical Safety Cards) or similarly written materials, based on assessed hazards to health and environment, is the simplest and most efficient way of indicating how to handle and use chemicals safely.
25. For the safe transport of dangerous goods, including chemicals, a comprehensive scheme elaborated within the United Nations system is in current use. This scheme takes mainly into account the acute hazards of chemicals.
26. Globally harmonized hazard classification and labelling systems are not yet available to promote the safe use of chemicals at the workplace, or the home etc. Classification of chemicals can be made for different purposes and is a particularly important tool in establishing labelling systems. There is a need to develop harmonized hazard classification and labelling systems, building on ongoing work.

Objective

27. A globally harmonized hazard classification and compatible labelling system, including material safety data sheets and easily understandable symbols should be available, if feasible, by the year 2000.

Activities

(a) Management-related activities

28. Governments, through the cooperation of relevant international organizations and industry, where appropriate, should launch a project with a view to establishing and elaborating a harmonized classification and compatible labelling system for chemicals for use in all United Nations official languages including adequate pictograms. Such a labelling system should not lead to the imposition of unjustified trade barriers. The new system should draw on current systems to the greatest extent possible; it should be developed in steps and should address compatibility with labels of various applications.

(b) Data and information

29. International bodies including, *inter alia*, IPCS (UNEP, ILO and WHO), FAO, the International Meteorological Organization (IMO), the United Nations Committee of Experts on the Transport of Dangerous Goods and OECD in cooperation with regional and national authorities having existing classification and labelling and other information dissemination systems, should establish a coordinating group to:



- (i) Evaluate and, if appropriate, undertake studies of existing hazard classification and information systems to establish general principles for a globally harmonized system;
- (ii) Develop and implement a workplan for the establishment of a globally harmonized hazard classification system. The plan should include a description of the tasks to be completed, deadline for completion and assignment of tasks to the participants of the coordinating group;
- (iii) Elaborate a harmonized hazard classification system;
- (iv) Draft proposals for standardization of hazard communication terminology and symbols in order to enhance risk management of chemicals, facilitate international trade and make it easier to translate the information into the end user's language;
- (v) Elaborate a harmonized labelling system.

Means of implementation

[(a) Financial and cost evaluation

30. A step-by-step international cooperative approach to harmonize the main existing systems, with subsequent or concurrent adoption of the resulting system, wholly or in part, by all member States before the year 2000, would limit additional costs for the work required to reconcile these systems and for assisting developing countries in implementing compatible classification and labelling schemes. Around US\$ 3 million would be needed annually to strengthen the capacities of international organizations to coordinate the work of harmonization. Additional costs for technical assistance to strengthen national capacities related to work to be undertaken under this programme area are included in the costing of programme area E.

31. The benefits from these expenditures would far exceed the costs.]

(b) Human resource development

32. Governments and institutions and non-governmental organizations, with the collaboration of appropriate organizations and programmes of the United Nations should launch training courses and information campaigns to facilitate the understanding and use of a new harmonized classification and compatible labelling system for chemicals.

Capacity-building

33. In strengthening national capacities for management of chemicals, including development, implementation and adaptation to new classification and labelling systems, the creation of trade barriers should be avoided and the limited capacities and resources of a large number of countries, particularly

developing countries, for implementing such a system, should be taken into full account.

C. INFORMATION EXCHANGE ON TOXIC CHEMICALS AND CHEMICAL RISKS

Basis for action

34. The following activities are related to information exchange on the benefits as well as the risks associated with the use of chemicals and are aimed at enhancing the sound management of toxic chemicals through the exchange of scientific, technical, economic and legal information.

35. The "London Guidelines for the Exchange of Information on Chemicals in International Trade" are a set of guidelines adopted by Governments with a view to increasing chemical safety through the exchange of information on chemicals. Special provisions have been included in the guidelines with regard to the exchange of information on banned and severely restricted chemicals.

36. The export to developing countries of chemicals that have been banned in producing countries or whose use has been severely restricted in some industrialized countries has been the subject of concern as some importing countries lack the ability to assure safe use, owing to inadequate infrastructure for controlling the importation, distribution, storage, formulation and disposal of chemicals.

37. In order to address this issue, provisions for prior informed consent (PIC) procedures were introduced in 1989 in the London Guidelines (UNEP) and in the International Code of Conduct on the Distribution and Use of Pesticides (FAO). In addition a joint FAO/UNEP programme has been launched for the operation of the PIC procedures for chemicals including the selection of chemicals to be included in the PIC procedure and preparation of PIC decision guidance documents. The ILO chemicals convention calls for communication between exporting and importing countries when hazardous chemicals have been prohibited for reasons of safety and health at work. Within the GATT framework, negotiations have been pursued with a view to creating a binding instrument on products banned or severely restricted in the domestic market. Further, the GATT Council has agreed, as stated in its decision, <sup>man</sup> to extend the mandate of the working group for a period of three months to begin from the date of the group's next meeting, and has authorized the Chairman to hold consultations on the timing for convening this meeting.

38. Notwithstanding the importance of the PIC procedure, information exchange on all chemicals is necessary.

↳ contained in C/N(?) / 251.

Objectives

39. The objectives of the programme area are:

(a) To promote intensified exchange of information on chemical safety, use and emissions between all involved parties;

(b) To achieve by the year 2000, as feasible, full participation in and implementation of the PIC procedure, including possible mandatory applications through legally binding instruments contained in the amended London Guidelines and in the FAO International Code of Conduct, taking into account the experience gained within PIC procedure.

Activities

(a) Management-related activities

40. Governments and relevant international organizations with the cooperation of industry should:

(i) Strengthen national institutions responsible for information exchange on toxic chemicals and promote creation of national centres where these do not exist;

(ii) Strengthen international institutions and networks such as the IRPTC, responsible for information exchange on toxic chemicals;

(iii) Establish technical cooperation with and provide information to other countries, especially those with shortages of technical expertise, including training in the interpretation of relevant technical data, such as Environmental Health Criteria Documents, Health and Safety Guides and International Chemical Safety Cards (published by IPCS), Monographs on the Evaluation of Carcinogenic Risks of Chemicals to Humans (published by the International Agency for Research on Cancer (IARC)), decision guidance documents (provided through the FAO/UNEP joint programme on PIC) and those submitted by industry or by other sources;

(iv) Implement the PIC procedures as soon as possible and, in the light of experience gained, invite relevant international organizations, such as UNEP, GATT, FAO, WHO and others in their respective area of competence to consider working expeditiously towards the conclusion of legally binding instruments.

(b) Data and information

41. Governments and relevant international organizations with the cooperation of industry should:

- (i) Assist in the creation of national chemical information systems in developing countries and improve access to existing international systems;
- (ii) Improve databases and information systems on toxic chemicals, such as emission inventory programmes, through provision of training in the use of these systems as well as soft- and hardware and other facilities;
- (iii) Provide knowledge and information on severely restricted or banned chemicals to importing countries to enable them to judge and take decisions on whether to import, and how to handle, these chemicals and establish joint responsibilities in trade of chemicals between importing and exporting countries;
- (iv) Provide data necessary to assess risks to human health and the environment of possible alternatives to banned or severely restricted chemicals.

42. United Nations organizations should provide, as far as possible, all international information material on toxic chemicals in all United Nations official languages.

(c) International and regional cooperation and coordination

43. Governments and relevant international organizations with the cooperation of industry should cooperate in establishing, strengthening and expanding, as appropriate, the network of designated national authorities for exchange of information on chemicals and establish a technical exchange programme to produce a core of trained personnel within each participating country.

Means of implementation

[(a) Financing and cost evaluation

44. Annual international financing of about US\$ 10 million will be needed: US\$ 7 million for technical assistance and US\$ 3 million for strengthening international institutions.]

D. ESTABLISHMENT OF RISK REDUCTION PROGRAMMES

Basis for action

45. There are often alternatives to toxic chemicals currently in use. Thus, risk reduction can sometimes be achieved by using other chemicals or even non-chemical technologies. The classical example of risk reduction is the substitution of harmless or less harmful substances for harmful ones. Establishment of pollution prevention procedures and setting standards for chemicals in each environmental medium (food, water, consumer goods, etc.), is another example of risk reduction. In a wider context, risk reduction involves broad-based approaches to reduce the risks of toxic chemicals, taking into account the entire life cycle of the chemicals. Such approaches could encompass both regulatory and non-regulatory measures, such as promotion of the use of cleaner products and technologies, pollution prevention procedures and programmes, emission inventories, product labelling, use limitations, economic incentives, procedures for safe handling and exposure regulations and the phasing out or banning of chemicals that pose unreasonable and otherwise unmanageable risks to human health and the environment, and those that are toxic, persistent and bio-accumulative and the use of which cannot be adequately controlled.

46. In the agricultural area, integrated pest management, including the use of biological control agents as alternatives to toxic pesticides, is one way of risk reduction.

47. Other areas of risk reduction encompass the prevention of chemical accidents, prevention of poisoning by chemicals and the undertaking of toxicovigilance and coordination of clean-up and rehabilitation of areas damaged by toxic chemicals.

48. The OECD Council has decided that OECD member countries should establish or strengthen national risk reduction programmes. The International Council of Chemical Associations (ICCA) has introduced initiatives regarding responsible care and product stewardship aimed at reduction of chemical risks. The Awareness and Preparedness for Emergencies at Local Level (APELL) programme of UNEP is designed to assist decision makers and technical personnel in improving community awareness of hazardous installations and preparation of response plans. The ILO has published a Code of Practice on the prevention of major industrial accidents and is preparing an international instrument on the prevention of industrial disasters for eventual adoption in 1993.

Objective

49. The objective of the programme area is to eliminate unacceptable or unreasonable risks and, to the extent economically feasible, to reduce risks posed by toxic chemicals, by employing a broad-based approach involving a wide range of risk reduction options, and by taking precautionary measures derived from a broad-based life-cycle analysis.

Activities

(a) Management-related activities

50. Governments, through the cooperation of relevant international organizations and industry, where appropriate, should:

- (i) Consider adopting policies based on accepted producers liability principles, where appropriate, as well as precautionary, anticipatory and life-cycle approaches to chemical management, covering manufacturing, trade, transport, use and disposal;
- (ii) Undertake concerted activities to reduce risks for toxic chemicals, taking into account the entire life cycle of the chemicals. These activities could encompass both regulatory and non-regulatory measures, such as promotion of the use of cleaner products and technologies; emission inventories; product labelling; use limitations; economic incentives; and the phasing out or banning of toxic chemicals that pose an unreasonable and otherwise unmanageable risk to the environment or human health and those that are toxic, persistent and bio-accumulative, the use of which cannot be adequately controlled;
- (iii) Adopt policies and regulatory and non-regulatory measures to identify, and minimize exposure to toxic chemicals by replacing them with less toxic substitutes and ultimately phasing out those chemicals that pose unreasonable and otherwise unmanageable risk to human health and the environment and those that are toxic, persistent and bio-accumulative, the use of which cannot be adequately controlled;
- (iv) Increase efforts to identify national needs for standard setting and implementation in the context of the FAO/WHO Codex alimentarius in order to minimize adverse effects of chemicals in food;
- (v) Develop national policies and adopt the necessary regulatory framework for prevention of accidents, preparedness and response (land-use planning, permit systems, reporting requirements on accidents etc.) and work with OECD/UNEP international directory of regional response centres and APELL programme;
- (vi) Promote establishment and strengthening, as appropriate, of national poison control centres to ensure prompt and adequate diagnosis and treatment of poisonings;
- (vii) Reduce the over-dependence on the use of agricultural chemicals through alternative farming practices, integrated pest management or other appropriate means;

- (viii) Require manufacturers, importers and others handling toxic chemicals to develop, with the cooperation of producers of such chemicals, where applicable, emergency response procedures and preparation of on-site and off-site emergency response plans;
- (ix) Identify, assess, reduce and minimize, or eliminate as far as feasible by environmentally sound disposal practices, risks from storage of outdated chemicals.

51. Industry should be encouraged to:

- (i) Develop an internationally agreed upon code of principles for the management of trade in chemicals, recognizing in particular the responsibility for making available information on potential risks and environmentally sound disposal practices if they become wastes, in cooperation with Governments and relevant international organizations and appropriate agencies of the United Nations;
- (ii) Develop application of a "responsible care" approach by producers and manufacturers towards chemical products, taking into account the total life cycle of such products;
- (iii) Adopt, on a voluntary basis, community right-to-know programmes based on international guidelines, including the sharing of information on causes of accidental releases or potential releases and means of preventing them, and reporting on annual, routine emissions of toxic chemicals to the environment in the absence of host country requirements.

(b) Data and information

52. Governments, through the cooperation of relevant international organizations and industry, where appropriate, should:

- (i) Promote exchange of information on national and regional activities to reduce the risks of toxic chemicals;
- (ii) Cooperate in the development of communication guidelines on chemical risks at the national level to promote information exchange with the public and the understanding of risks.

(c) International and regional cooperation and coordination

53. Governments, through the cooperation of relevant international organizations and industry, where appropriate, should:

- (i) Collaborate to develop common criteria to determine which chemicals are suitable candidates for concerted risk reduction activities;
- (ii) Coordinate concerted risk reduction activities;

- (iii) Develop guidelines and policies for manufacturers, importers and others using toxic chemicals to disclose toxicity information declaring risks and emergency response arrangements;
- (iv) Encourage large industrial enterprises including transnational corporations and other enterprises <sup>wherever they operate</sup> to introduce policies and commitments to adopt equivalent or not less stringent standards of operation, <sup>than</sup> as in the country of origin, <sup>with reference to toxic chemical management\*</sup>
- (v) Encourage and support small- and medium-size industry to develop and adopt relevant procedures for risk reduction in their activities;
- (vi) Develop regulatory and non-regulatory <sup>measures</sup> and procedures aimed at preventing the export of chemicals that <sup>are</sup> ~~have been~~ banned, severely restricted, withdrawn or not approved for health or environmental reasons, except when such export has received prior written consent from the importing country or is otherwise in accordance with the PIC procedure;
- (vii) Encourage national and regional work to harmonize evaluation of pesticides;
- (viii) Promote and develop mechanisms for the safe production, management and use of dangerous materials, formulating programmes to substitute for them with safer alternatives, where appropriate;
- (ix) Formalize networks of emergency response centres;
- (x) Encourage industry, with the help of multilateral cooperation, to phase out, as appropriate, and dispose of any banned chemicals that are still in stock or in use in an environmentally sound manner, including safe reuse, where approved and appropriate.

#### Means of implementation

##### [(a) Financial and cost evaluation

54. Risk assessment is a prerequisite for many actions needed to meet the objectives of this programme area. These costs are included in estimates for programme areas A and E and part of the costs of national-level programmes are included under programme area E. About US\$ 4 million will be needed annually from the international community for training and strengthening the emergency and poison control centres.]

##### (b) Scientific and technological means

55. Governments, in cooperation with relevant international organizations and programmes, should:

- (i) Promote technology that would minimize release of, and exposure to toxic chemicals in all countries;

\* Exact wording not read into record at Plenary. Plenary agreed to use parallel wording from previously adopted text of PC/WG.II/L.28 (hazardous wastes) /...



- (ii) Carry out national reviews, as appropriate, of pesticides accepted previously, based on criteria now recognized as insufficient or outdated, and of their possible substitution by other pest-control methods, particularly in the case of pesticides that are toxic, persistent and/or bio-accumulative.

**E. STRENGTHENING OF NATIONAL CAPABILITIES AND CAPACITIES  
FOR MANAGEMENT OF CHEMICALS**

Basis for action

56. Many countries lack national systems to cope with chemical risks. Most countries lack scientific means of collecting evidence of misuse and of judging the impact of toxic chemicals on the environment, because of the difficulties involved in the detection of many problematic chemicals and systematically tracking their flow. Significant new uses are among the potential hazards to human health and the environment in developing countries. In several countries with systems in place there is an urgent need to make the systems more efficient.

57. Basic elements for sound management of chemicals are: (a) adequate legislation; (b) information gathering and dissemination; (c) capacity for risk assessment and interpretation; (d) establishment of risk management policy; (e) capacity for implementation and enforcement; (f) capacity for rehabilitation of contaminated sites and poisoned persons; (g) effective education programmes; (h) capacity to respond to emergencies.

58. As management of chemicals takes place within a number of sectors related to various national ministries, experience suggests that a coordinating mechanism is essential.

Objective

59. By the year 2000, national systems for environmentally sound management of chemicals, including legislation and provisions for implementation and enforcement should be in place in all countries to the extent possible.

Activities

(a) Management-related activities

60. Governments, where appropriate and with the collaboration of relevant intergovernmental organizations, agencies and programmes of the United Nations, should:

- (i) Promote and support multidisciplinary approaches to chemical safety problems;

- (ii) Consider the need to establish and strengthen, where appropriate, a national coordinating mechanism to provide liaison between all parties involved in chemical safety activities (e.g. agriculture, environment, education, industry, labour, health, transportation, police, civil defence, economic affairs, research institutions, poison control centres);
- (iii) Develop institutional mechanisms for the management of chemicals, including effective means of enforcement;
- (iv) Establish and develop or strengthen, where appropriate, networks of emergency response centres, including poison control centres;
- (v) Develop national and local capabilities to prepare for and respond to accidents by taking into account UNEP's APELL and similar programmes on accident prevention, preparedness and response, where appropriate, including regularly tested and updated emergency plans;
- (vi) In cooperation with industry, develop emergency response procedures, identifying necessary means and equipment in industries and plants to reduce impacts of accidents.

(b) Data and information

61. Governments should:

- (i) Direct information campaigns to the general public to increase the awareness of problems on chemical safety such as programmes providing information about chemical stockpiles, environmentally safer alternatives and emission inventories which could also be a tool for risk reduction;
- (ii) In conjunction with IRPTC, establish national registers and databases, including safety information, for chemicals;
- (iii) Generate field monitoring data for toxic chemicals of high environmental importance;
- (iv) Cooperate with international organizations, where appropriate, to effectively monitor and control the generation, manufacturing, distribution, transportation and disposal activities relating to toxic chemicals, to ensure compliance with preventive and precautionary approaches and safety management rules, and provide accurate reporting of relevant data.

L. Foster

(c) International and regional cooperation and coordination

62. Governments, with the cooperation of international organizations, where appropriate, should:

- (i) Prepare guidelines, where not already available, with advice and check-lists for enacting legislation in the chemical safety field;
- (ii) Support countries, particularly developing countries, in developing and further strengthening national legislation and its implementation;
- (iii) Appropriate international organizations, in particular UNEP, OECD, ECE, and other interested parties should consider the possibility of developing a guidance document on the establishment of community-right-to-know or other public information dissemination programmes, where appropriate, for use by Governments considering adoption of such programmes as possible risk reduction tools. The document should build on existing work on accidents and include new guidance on toxic emission inventories and risk communication. Such guidance should include harmonization of requirements, definitions and data elements to promote uniformity and allow sharing of data internationally;
- (iv) Build on past, present and future risk assessment work at an international level, to support countries, particularly developing countries in developing and strengthening risk assessment capabilities at national and regional levels to minimize risk in the manufacturing and use of toxic chemicals;
- (v) Promote implementation of UNEP's APELL programme and, in particular, the use of an OECD/UNEP international directory of emergency response centres;
- (vi) Cooperate with all countries, particularly developing countries, in the setting up of an institutional mechanism at the national level and the development of appropriate tools for management of chemicals;
- (vii) Arrange information courses at all levels of production and use, aimed at staff working on chemical safety issues;
- (viii) Develop mechanisms to make maximum use in countries of internationally available information;
- (ix) Invite UNEP to promote principles for accident prevention, preparedness and response for Governments, industry and the public, building on the ILO, OECD and ECE work in this area.

Means of implementation

[(a) Financing and cost evaluation

63. National annual costs for regulatory efforts, including enforcement, have been estimated as a proportion of the value of chemicals manufactured or imported. On this basis the annual requirements in developing countries would amount to US\$ 500-600 million. It is suggested that US\$ 100-150 million be provided as concessional finance for this purpose to developing countries by the international community.]

(b) Scientific and technological means

64. International organizations should:

- (i) Promote the establishment and strengthening of national laboratories to ensure the availability of adequate national control in all countries regarding the importation, manufacture and use of chemicals;
- (ii) Promote translation where feasible of internationally prepared documents on chemical safety into local languages and support various levels of regional activities related to technology [transfer] and information exchange.

(c) Human resource development

65. International organizations should:

- (i) Enhance technical training for developing countries in relation to risk management of chemicals;
- (ii) Promote and increase support for research activities at the local level by providing grants and fellowships for studies at recognized research institutions active in disciplines of importance for chemical safety programmes.

66. Governments should:

Organize, in collaboration with industry and trade unions, training programmes in the management of chemicals, including emergency response, targeted at all levels. In all countries basic elements of chemical safety principles should be included in the primary education curricula.

~~F.~~ PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS ~~II~~

Basis for action

SEE ATT.  
67. Further strengthening of international and regional cooperation is needed to prevent illegal transboundary movement of toxic and dangerous products, as well as capacity-building at the national level to improve monitoring and enforcement capabilities.

68. Effective prevention requires effective monitoring, enforcement and imposition of appropriate penalties.

Objectives

69. The objectives of the programme are:

(a) To reinforce national capacities to detect and halt any illegal attempt to introduce toxic and dangerous products into the territory of any State, in contravention of national legislation and relevant international legal instruments;

(b) To assist all countries, particularly developing countries, in obtaining all appropriate information concerning illegal traffic in toxic and dangerous products.

Activities

(a) Management-related activities

70. Governments, according to their capacities and available resources and with the cooperation of the United Nations and other relevant organizations, as appropriate, should:

(i) Adopt, where necessary, and implement legislation to prevent the illegal import and export of toxic and dangerous products;

(ii) Develop appropriate national enforcement programmes to monitor compliance with such legislation, and detect and deter violations through appropriate penalties.

(b) Data and information

71. Governments should develop, as appropriate, national alert systems to assist in detecting illegal traffic in toxic and dangerous products; local communities, and others could be involved in the operation of such a system.

72. Governments should cooperate in the exchange of information on illegal transboundary movements of toxic and dangerous products, and should make such information available to appropriate United Nations bodies, such as UNEP and the United Nations Regional Economic Commissions.

(c) International and regional cooperation and coordination

73. The United Nations regional commissions, in cooperation with and relying upon expert support and advice from UNEP and other relevant bodies of the United Nations, should monitor, on the basis of data and information provided by Governments, and make regional assessments on a continuous basis of data on the illegal traffic in toxic and dangerous products and its environmental, economic and health implications, in each region, drawing upon the results and experience gained in the joint UNEP/ESCAP preliminary assessment of illegal traffic, expected to be completed in August 1992.

74. Governments and international organizations, as appropriate, should cooperate with developing countries in strengthening their institutional and regulatory capacities in order to prevent illegal import and export of toxic and dangerous products.

G. ENHANCEMENT OF INTERNATIONAL COOPERATION RELATING TO SEVERAL OF THE PROGRAMME AREAS

75. A meeting of government-designated experts, held in London in December 1991, made recommendations for increased coordination among United Nations agencies and other international organizations involved in chemical risk assessment and management. That meeting called for taking appropriate measures to enhance the role of IPCS and establish an intergovernmental forum on chemical risk assessment and management.

76. To further consider the recommendations of the London meeting and initiate action on them, as appropriate, the Executive Heads of WHO, ILO and UNEP are invited to convene an intergovernmental meeting within one year, which could constitute the first meeting of the intergovernmental forum.

Notes

1/ For the purpose of this programme area, the term "toxic and dangerous products" refers to products whose consumption and/or sale have been banned, withdrawn, severely restricted or not approved by Governments for health and environmental protection.]

-----

SEE  
ATT.

Amendments ADOPTED 2 APRIL  
IN PLenary 1992

Environmentally Sound Management of Toxic Chemicals  
Document A/CONF.151/PC/WGII/L.30

Paragraph 9 should read:

There is international concern that part of the international movement of toxic and dangerous products is being carried out in contravention of existing national legislation and international instruments to the detriment of the environment and public health of all countries, particularly of developing countries.

F. Prevention of illegal international traffic in toxic and dangerous products

Paragraph 67 should read:

There is currently no global international agreement on traffic in toxic and dangerous products ("toxic and dangerous products" refers to products that are banned, severely restricted, withdrawn or not approved for use or sale by Governments, to protect public health and the environment). However, there is international concern that illegal international traffic in these products is detrimental to public health and the environment, particularly in developing countries, as acknowledged in GA Resolutions 42/183, and 44/226. "Illegal traffic" refers to traffic that is carried out in contravention of a country's laws or relevant international legal instruments. The concern also relates to the transboundary movements of these products that are not carried out in accordance with applicable, internationally adopted guidelines and principles. Activities under this programme area are intended to improve detection and prevention of the traffic concerned.

Paragraph 68 should read:

Further strengthening of international and regional cooperation is needed to prevent illegal transboundary movement of toxic and dangerous products as well as capacity building at the national level to improve monitoring and enforcement capabilities, recognizing that appropriate penalties may need to be imposed under an effective enforcement programme. Other activities envisaged in this chapter (e.g. under paragraph 40(iv)) will also contribute to achieve these objectives.

Paragraph 72 bis should read: immediately under heading "International + regional cooperation + coordination"

Further strengthening of international and regional cooperation is needed to prevent illegal transboundary movement of toxic and dangerous products.

Form 675 G (15)  
PRODUCT OF **Plastex** & PROCESS  
MONTREAL TORONTO



## HAZARDOUS WASTES

### **SUMMARY**

The Hazardous Waste chapter of Agenda 21 adopted at PrepCom IV is a reasonable text which meets all Canadian objectives. Proposals for self-sufficiency in management of hazardous wastes within the country of origin were softened to allow for the option of regionally-shared facilities. The text now includes provisions dealing with development of control procedures for the transboundary movement of hazardous wastes destined for recovery operations. The adopted chapter is compatible with current international work, notably in UNEP and the OECD, and with Canadian strategies. Finalisation of the Export and Import regulations will allow Canada to ratify the Basel Convention, as called for in the Agenda 21 chapter.

The square brackets remaining in the chapter are on the text dealing with financial resources and technology aspects, awaiting resolution in the broader UNCED debate; a reference to the European Community, pending a decision on its status vis-à-vis governments; and a reference to military establishments.

### **DOCUMENTATION**

A/CONF.151/PC/WG.II/L.28 + Corr.1: Agreed Agenda 21 Chapter: Environmentally Sound Management of Hazardous Wastes (replaces PC/100/Add.24).  
Statement by Canada: use of term "national governments"

### **CANADIAN OBJECTIVES**

1. Seek to strengthen commitments to establish alternate controls for the transboundary movement of hazardous wastes destined for recycling operations.
2. Seek to support efforts to share environmentally sound facilities on a regional basis.
3. Seek to recognise and support efforts of existing UNEP study groups on environmentally sound management and liability, as well as ensure that Agenda 21 proposals complement existing international programmes.
4. Avoid broad-ranging proposals to ban or prohibit exports of hazardous wastes to developing countries indiscriminately without considering the controls of the Basel Convention.

## PREPCOM DISCUSSION

PrepCom discussion of the Hazardous Waste chapter was intense but by and large productive, with the Chair's skills keeping the delegates focused on the issues at hand. The key Canadian proposals, which were formally submitted as CANZ (Canada, Australia and New Zealand) proposals, on transboundary movement of recyclables/waste, and sharing environmentally sound facilities on a regional basis, were discussed at fair length. Canada took the lead in a small negotiating group to successfully negotiate a consensus text; Malaysia, Poland and Kenya took some persuading, as they were not quickly convinced of the merits of the arguments favouring regionally shared facilities.

Another time-consuming debate was on the issue of illegal traffic of toxic and dangerous products. Venezuela pushed for the inclusion of this issue in Agenda 21, preferably as a separate chapter, citing UNGA resolutions 44/226 and 44/228 as the non-negotiable rationale. In the end it was agreed that the hazardous waste and toxic chemicals chapters would each cover the issue of illegal traffic in their respective areas. This proved easier to negotiate in the hazardous waste chapter than in the toxic chemicals (see report on Toxic Chemicals). The hazardous waste provisions generally reflect what is currently in the Basel Convention or in the rest of the Agenda 21 Chapter.

Another contentious issue was a proposal by Malaysia to further define recovery operations in order to prevent sham recycling operations. The text proposed by Malaysia was unacceptable to many delegations, including Canada. An acceptable text was not negotiated until the last minute for adoption in the Hazardous Waste chapter (paragraph 37(d)bis). Attempts to convince Malaysia that detailed language was unnecessary since the issue would be taken up under the Basel Convention were unsuccessful, in face of domestic political imperatives for the Malaysian delegation. Although we would have preferred a more general text we can live with agreed language.

## OUTCOME AND ASSESSMENT

PrepCom IV agreed a relatively clean text on Hazardous Wastes, with square brackets remaining on the financial resources and technology aspects, awaiting resolution in the broader UNCED debate; a reference to the European Community, pending a decision on its status vis-à-vis governments; and a reference to military establishments. In general, the chapter embraces the cradle-to-grave approach to hazardous waste management, which spans prevention/minimisation to

environmentally sound treatment/disposal or residues, including transboundary movement, and the related issue of illegal traffic.

Canada achieved its objectives. The chapter incorporates all Canadian proposals, in particular inclusion of language softening the call for self-sufficiency (paragraph 7(a), and provisions dealing with development of control procedures for the transboundary movement of hazardous wastes destined for recovery operations (paragraph 36(c)). The chapter does not contain broad-ranging proposals to ban or prohibit exports of hazardous wastes to developing countries indiscriminately. The general tone of the text is to recognise and complement existing international activities, particularly UNEP work on environmentally sound management and liability and the Basel Convention.

A number of the objectives and activities are currently being addressed by the OECD Waste Management Policy Group. The 30 March OECD Decision delineates special controls for hazardous wastes destined for recovery operations within the OECD area; it incorporates control procedures that take into account environmental and economic criteria. The Agenda 21 agreed text now provides the opportunity for the Basel Convention negotiations to develop similar or compatible procedures dealing with recyclables as are reflected in the OECD Decision.

From the Canadian perspective, the Green Plan reflects a number of the principles included in the agreed Agenda 21 chapter. In collaboration with the provinces a national strategy on waste reduction is being developed which could become a CCME national waste management strategy. An opportunity now exists to incorporate many of the principles, objectives and activities contained in the Agenda 21 chapter into the national strategy.

Given Canada's shared jurisdictions on this issue, the statement made by the Canadian delegation at the end of the PrepCom regarding the use of the term "national governments" throughout the Agenda 21 text should be noted.

Development of Export and Import regulations under CEPA to control transboundary movement of hazardous wastes is entering the final public consultation stage. These regulations will allow Canada to ratify the Basel Convention as called for in paragraph 7 of the Agenda 21 chapter.

Report prepared by:

Janice Kostash  
UNCED National Secretariat  
953-9304

Further information:

John Myslicki  
Environment Canada  
953-1390



General Assembly

Distr.  
LIMITED

A/CONF.151/PC/WG.II/L.28  
26 March 1992

ORIGINAL: ENGLISH

Note: incorporates  
WG.II/L.28/Cont. I

PREPARATORY COMMITTEE FOR THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Fourth session  
New York, 2 March-3 April 1992  
Agenda item 2 (c) of Plenary  
Agenda item 4 (a) of Working Group II

[ ] remain on  
132 (EC)  
23h (Milit)

PREPARATIONS FOR THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT ON THE BASIS OF GENERAL ASSEMBLY RESOLUTION 44/228 AND TAKING INTO ACCOUNT OTHER RELEVANT GENERAL ASSEMBLY RESOLUTIONS: CROSS-SECTORAL ISSUES

ENVIRONMENTALLY SOUND MANAGEMENT OF WASTES, PARTICULARLY HAZARDOUS WASTES, AND OF TOXIC CHEMICALS, AS WELL AS PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS AND WASTES: ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS WASTES

Environmentally sound management of hazardous wastes  
(including prevention of illegal international traffic in hazardous wastes)

(Section II, chapter 12, of Agenda 21)

Text submitted by the Chairman on the basis of negotiations held on document A/CONF.151/PC/100/Add.24

Notes for changes throughout document.

- ① "wastes" will be changed to "hazardous wastes".
- ② "Health + the environment" will be changed to "human health + the environment".
- ③ "Hazardous product(s)" will be changed to "hazardous waste".

This will require the active cooperation and participation of international community, governments and industry. Industry, as referred to in this paper, shall include large industrial enterprises including transnational corporations, and domestic industries.

## I. INTRODUCTION

1. Effective control of the generation, storage, treatment, recycling and reuse, transport, recovery and disposal of hazardous wastes is of paramount importance for proper health, environmental protection and natural resource management, and sustainable development.
2. Prevention of the generation of hazardous wastes and the rehabilitation of contaminated sites are the key elements, but they both require knowledge, experienced people, facilities, financial resources, and technical and scientific capacities.
3. The activities outlined in the present chapter are very closely related to, and have implications for, many of the programme areas described in other chapters, so that an overall integrated approach to hazardous waste management is necessary.
4. There is international concern that part of the international movement of hazardous wastes is being carried out in contravention of existing national legislation and international instruments to the detriment of the environment and public health of all countries, particularly of developing countries.
5. In section I of General Assembly resolution 44/226 of 22 December 1989, the regional commissions were requested to contribute to the prevention of the illegal traffic in toxic and dangerous products and wastes by monitoring and making regional assessments of that illegal traffic and its environmental and health implications; the Assembly also requested the regional commissions to interact among themselves and cooperate with the United Nations Environment Programme (UNEP), with a view to maintaining efficient and coordinated monitoring and assessment of the illegal traffic in toxic and dangerous products and wastes.

### Overall objective

6. Within the framework of integrated life-cycle management, the overall objective is to prevent to the extent possible, and minimize, the generation of hazardous wastes, as well as to manage the wastes in such a way that they do not cause harm to health and the environment.

### Overall targets

7. The overall targets are as follows:

(a) Prevention or minimization of the generation of hazardous wastes as part of an overall integrated cleaner production approach; elimination or reduction to a minimum of transboundary movements of hazardous wastes, consistent with the environmentally sound and efficient management of those wastes; and ensuring that environmentally sound hazardous waste management options are pursued to the maximum extent possible within the country of

all  
origin (the self-sufficiency principle). The transboundary movements that take place should be based on environmental and economic grounds and upon agreements between the States concerned, ~~including riparian States where appropriate. This takes into account the needs of developing countries and the special difficulties faced by small island States in disposing of some hazardous wastes in an environmentally sound manner.~~

(b) Ratification of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and the expeditious elaboration of related protocols, such as the protocol on liability and compensation, mechanisms and guidelines to facilitate the implementation of the Convention;

(c) Ratification and full implementation by the countries concerned of the Bamako Convention on the Ban on the Import into Africa and Control of Transboundary Movement of Hazardous Wastes within Africa and the expeditious elaboration of a protocol on liability and compensation;

(d) ~~Full respect for the decisions taken by the countries parties to conventions, such as the Bamako Convention, and the Fourth Lomé Convention, that prohibit the import of hazardous wastes into developing countries.~~

8. The following programme areas will be dealt with:

(a) Promotion of hazardous waste prevention and minimization;

(b) Promotion and strengthening of institutional capacities in hazardous waste management;

(c) Promotion and strengthening of international cooperation in the management of transboundary movements of hazardous wastes;

~~(d) Prevention of illegal international traffic in hazardous wastes.~~

## II. PROGRAMME AREAS

### A. PROMOTION OF HAZARDOUS WASTE PREVENTION AND MINIMIZATION

#### Basis for action

9. Human health and environmental quality are being continually degraded by the increasing amount of <sup>hazardous</sup> wastes being produced. There are increasing direct and indirect costs to society and to individual citizens in connection with the generation, handling and disposal of <sup>hazardous</sup> wastes. It is therefore crucial to enhance knowledge and information on the economics of prevention and management of hazardous wastes, including the impact in relation to the employment and environmental benefits, in order to ensure that the necessary capital investment is made available in development programmes through economic incentives. One of the first priorities in <sup>hazardous</sup> waste management is

7d) ~~Elimination of export of hazardous wastes to countries which individually or through international agreements, prohibit the import of such wastes, such as the contracting parties to the Bamako Convention, to Lomé IV & other relevant conventions where such prohibition is provided for.~~

minimization, as part of a broader approach to change industrial processes and consumer patterns through pollution prevention and cleaner production strategies.

10. Among the most important factors in these strategies is the recovery of hazardous wastes and their transformation into useful material. Technology application, modification and development of new low waste technologies is therefore currently a central focus of waste minimization.

Objectives

11. The objectives of this programme are:

- (a) To reduce the generation of hazardous wastes, to the extent feasible, as part of an integrated cleaner production approach;
- (b) To optimize the use of materials by utilizing, where practicable and environmentally sound, the residues from production processes;
- (c) To enhance knowledge and information on the economics of prevention and management of hazardous wastes.

12. To achieve the objectives, and thereby reduce the impact and cost of industrial development, countries that can afford to adopt the requisite technologies without detriment to their development should establish policies that include:

- (a) The integration of cleaner production approaches and hazardous waste minimization in all planning, and the adoption of specific goals;
- (b) Promotion of the use of regulatory and market mechanisms;
- (c) Establishment of an intermediate goal for the stabilization of the quantity of hazardous waste generated;
- (d) Establishment of long-term programmes and policies including targets where appropriate for reducing the amount of hazardous waste produced per unit of manufacture;
- (e) Achievement of a qualitative improvement of waste streams, mainly through activities aimed at reducing their hazardous characteristics;
- (f) Facilitating the establishment of cost-effective policies and approaches to hazardous waste prevention and management, taking into consideration the state of development of each country.



\* changes not noted in conf. 1.

Activities

(a) Management-related activities

13. The following activities should be undertaken:

(a) Governments [Throughout this document the term "Governments" also refers to the European Community acting within its sphere of competence.] should establish or modify standards or purchasing specifications to avoid discrimination against recycled materials, provided they are environmentally sound;

(b) Governments, according to their <sup>capacities\*</sup> ~~possibilities~~ and with the help of <sup>techniques\*</sup> multilateral cooperation, should provide economic or regulatory incentives, <sup>where appropriate</sup> to stimulate industrial innovation towards cleaner production ~~methods~~, to encourage industry to invest in preventive and/or recycling technologies so as to ensure environmentally sound management of all hazardous wastes, including recyclable wastes, and to encourage waste minimization investments;

(c) Governments should intensify research and development activities on cost-effective alternatives for processes and substances that currently result in the generation of hazardous wastes that pose particular problems for environmentally sound disposal or treatment, the possibility of ultimate phase-out to be considered as soon as practicable. Emphasis should be given to alternatives that could be economically accessible to developing countries;

(d) <sup>Govts. according to their capacities + available resources + w the cooperation of the UN + relevant orgs</sup> ~~States with international, bilateral or multilateral assistance~~ <sup>sations + the</sup> ~~where requested,~~ <sup>tries, as app</sup> should support the establishment of domestic facilities to handle hazardous wastes of domestic origin; <sup>private</sup>

(e) [Governments of developed countries should provide a range of incentives to encourage industry to transfer environmentally sound technologies and know-how on clean technologies and low-waste production to developing countries on preferential and non-commercial terms, which will bring about changes to sustain innovation. Governments should cooperate with industry to develop guidelines and codes of conduct, leading to cleaner production through sectoral trade industry associations.]

(f) Governments should encourage industry to treat, recycle <sup>reuse</sup> and dispose of wastes at the source of generation, or as close as possible thereto, whenever waste generation is unavoidable and when it is both economically and environmentally efficient to do so;

(g) Governments should encourage technology assessments, for example through the use of technology assessment centres; <sup>in collaboration with industry where necessary</sup>

(h) Governments should promote cleaner production through the establishment of centres providing training and information on environmentally sound technologies;

of those substances that present an unreasonable and otherwise unmanageable risk and that are toxic, persistent and bioaccumulative.

(i) Industry should establish environmental management systems, including environmental auditing of its production or distribution sites, in order to identify where the installation of cleaner production methods is needed;

(j) A relevant and competent <sup>UN</sup> international organization should take the lead, in cooperation with other organizations, to develop guidelines for estimating the costs and benefits of various approaches to the adoption of cleaner production and waste minimization and environmentally sound management of wastes, taking into account, where appropriate, the report of the Nairobi meeting of government-designated experts on an international strategy and an action programme, including technical guidelines for the environmentally sound management of hazardous wastes, <sup>in particular in the context of the Basel Convention, being developed under the UNEP secretariat.</sup>

including  
rehabilitation  
of contaminated  
sites  
hazardous

(k) Governments should establish regulations which lay down the industries ultimate responsibility for environmentally sound disposing of the hazardous wastes its activities generate.

(b) Data and information

14. The following activities should be undertaken:

(a) Governments, assisted by international organizations, should establish mechanisms for assessing the value of existing information systems;

(b) Governments should establish nationwide and regional information collection and dissemination clearing houses and networks, which are easy to access and use by Government institutions and industry and other non-governmental organizations;

(c) International organizations, through the UNEP Cleaner Production Programme and the International Cleaner Production Information Clearing House (ICPIC), should extend and strengthen existing systems for collection of cleaner production information;

(d) Promotion of the use and dissemination by all United Nations organs and organizations of information collected through the cleaner production network;

(e) The Organisation for Economic Co-operation and Development (OECD) should, in cooperation with other organizations, undertake a comprehensive survey of, and disseminate information on, experiences of member countries in adopting economic regulatory schemes and incentive mechanisms for waste management and for the use of clean technologies that prevent wastes from being generated; <sup>hazardous</sup>

(f) Governments should encourage industries to be transparent in their operations and provide relevant information to the communities that might be affected by the generation, and management of hazardous wastes.

Land disposal

(c) International and regional cooperation and coordination

15. International/regional cooperation should encourage the ratification by States of the Basel and Bamako Conventions and promote the implementation of those Conventions. Regional cooperation will be necessary for the development of similar conventions in regions other than Africa, if so required. In addition there is a need for effective coordination of international regional and national policies and instruments. / ~~Other activities~~ <sup>Another</sup> proposed ~~are~~ <sup>is</sup>

~~(a) Strengthening international cooperation in monitoring the transfer to other countries of industries generating hazardous wastes;~~

~~(b) [Encouraging large industrial enterprises, including transnational corporations, to conform with the provisions of international and regional environmental standards, guidelines and conventions to the extent that they are applicable to corporate activities, even though not mandatory under national law;]~~

~~(c) [Observing all national and local laws and regulations for environmental protection, subject to the overriding responsibility to conform with regional and international standards;]~~

~~(d) [Adopting and implementing policies and programmes in accordance with the highest practicable industry-agreed guidelines;]~~

~~(e) [Addressing in future environmental instruments the rights and responsibilities of transnational corporations;]~~

~~g) Cooperating in monitoring the effects of the management of hazardous wastes.~~

Means of implementation

(a) Financing and cost evaluation

16. [It is estimated that the annual cost of improving the national capacity of developing countries through contributions from the international community and industry to implement this programme area will be approximately \$740 million. This includes the establishment of national centres to promote cleaner production activities, research and training activities and activities related to the use of economic instruments in waste management, amounting to about \$380 million per year, and the launching of demonstration projects for about \$360 million per year. This amount may depend on the rate of implementation of such projects at the country level; the participation of the industry should be an integral part of implementation.]

17. [The annual cost of strengthening international institutions, including their activities on the strengthening of information exchange systems and the enhancement of knowledge and information on the economics of prevention and management of hazardous wastes, will be about \$10 million.]

(b) Technology development and research

18. The following activities should be undertaken:

(a) Governments, according to their capacities and available resources and with the cooperation of the United Nations and other relevant organizations, and industries, as appropriate, should significantly increase financial support for "cleaner technology R&D programmes", including the use of biotechnologies;

(b) States, with the cooperation of international organizations where appropriate, should encourage industry to promote and undertake research into the phase-out of those processes that pose the greatest environmental risk based on the hazardous wastes generated;

(c) States should encourage industry to develop schemes to integrate the cleaner production approach into the design of products and their management practices;

(d) States should encourage industry to exercise environmentally responsible care through <sup>hazardous</sup> waste reduction and by ensuring the environmentally sound reuse, recycling and recovery of hazardous wastes, as well as their final disposal.

Human resources development

19. The following activities should be undertaken:

(a) Governments, international organizations and industry should encourage industrial training programmes, incorporating <sup>hazardous</sup> waste prevention and minimization techniques and launching demonstration projects at the local level to develop "success stories" in cleaner production;

(b) Industry should integrate cleaner production principles and case examples into training programmes and establish demonstration projects/networks by sector/country;

(c) All sectors of society should develop cleaner production awareness campaigns and promote dialogue and partnership with industry and other actors.

Capacity-building

20. The following activities should be undertaken:

(a) Governments of developing countries, in cooperation with industry and with the cooperation of appropriate international organizations, should develop inventories of hazardous waste production, in order to identify their needs with respect to technology transfer and implementation of measures for the sound management of <sup>hazardous</sup> wastes and their disposal;

\* amendment not noted in  
COTT. 1

taking into account

(b) Governments should include in national planning and legislation an integrated approach to environmental protection, driven by prevention and source reduction criteria, based on the polluter-pays principle, and adopt programmes for hazardous waste reduction, including targets and adequate environmental control;

(c) Governments should work with industry on sector-by-sector cleaner production and waste minimization campaigns, as well as on the reduction of such wastes and other emissions;

(d) Governments should take the lead in establishing and strengthening, as appropriate, national procedures for environmental impact assessment to take into account the "cradle to grave" approach to the management of hazardous wastes, to identify options for minimizing the generation of hazardous wastes, through safer handling, storage, disposal and destruction;

(e) Governments, in collaboration with industry and appropriate international organizations, should develop procedures for monitoring the application of the "cradle to grave" approach, including environmental audits;

(f) [Bilateral and multilateral development assistance agencies should substantially increase funding for cleaner technology transfer to developing countries and economies in transition, including small- and medium-sized enterprises.]

## B. PROMOTION AND STRENGTHENING OF INSTITUTIONAL CAPACITIES IN HAZARDOUS WASTE MANAGEMENT

### Basis for action

21. Many countries lack the national capacity to handle and manage hazardous wastes. This is primarily due to inadequate infrastructure, deficiencies in regulatory frameworks, insufficient education and training programmes and lack of coordination between the different ministries and institutions involved in various aspects of waste management. In addition, there is a lack of knowledge about environmental contamination and pollution and the associated health risk from the exposure of populations, especially women and children, and ecosystems to hazardous wastes, the assessment of risks and the characteristics of wastes. Steps need to be taken immediately to identify populations at high risk and to take remedial measures, where necessary. To ensure environmentally sound management of hazardous wastes, one of the main priorities is to provide awareness, education and training programmes to cover all levels of society. There is also a need to undertake research programmes to understand the nature of hazardous materials, to identify their potential environmental effects and to develop technologies to safely handle these wastes. Finally, there is a need to strengthen the capacities of institutions which are responsible for the management of hazardous wastes.

wastes

Objectives

22. The objectives in this programme area are as follows:

(a) To adopt appropriate coordinating, legislative and regulatory measures at the national level for the environmentally sound management of hazardous wastes, including the implementation of international and regional conventions;

(b) To establish public awareness and information programmes on hazardous waste issues and to ensure that basic education and training programmes are provided for industry and government workers in all countries;

(c) To establish comprehensive research programmes on hazardous wastes in countries;

(d) To strengthen service industries to enable them to handle hazardous wastes materials, and to build up international networking;

(e) To develop endogenous capacities in all developing countries to educate and train staff at all levels in environmentally sound hazardous waste handling, monitoring and environmentally sound management;

(f) To promote human exposure assessment with respect to hazardous waste sites and identify remedial measures required;

(g) To facilitate the assessment of impacts and risks of hazardous wastes on human health and the environment by establishing appropriate procedures, methodologies, criteria and/or effluent guidelines and standards;

(h) To improve knowledge regarding the effects of hazardous wastes on human health and the environment;

(i) To make information available to Governments and to the general public on the effects of hazardous wastes, including infectious wastes, on human health and the environment.

Activities

(a) Management related

23. The following activities should be undertaken:

(a) Governments should establish and maintain inventories, including computerized inventories, of hazardous wastes and their treatment/disposal sites, as well as of contaminated sites that require rehabilitation, and assess the exposure and the risk to health and the environment; they should also identify the measures required to clean up the disposal sites. Industry should make the necessary information available;

human

(b) Governments, industry and international organizations should collaborate in developing guidelines and easy-to-implement methods for the characterization and classification of hazardous wastes;

(c) Governments should carry out exposure and health assessments of populations residing near to uncontrolled hazardous waste sites and initiate remedial measures;

(d) International organizations should develop improved health-based criteria, taking into account national decision-making processes, and assist in the preparation of practical technical guidelines for the prevention, minimization and safe handling and disposal of hazardous wastes;

(e) Governments of developing countries should encourage interdisciplinary and intersectoral groups, in cooperation with international organizations and agencies, to implement training and research activities related to evaluation, prevention and control of hazardous waste health risks. Such groups should serve as models to develop similar regional programmes;

(f) Governments, according to their capacities and available resources and with the cooperation of the United Nations and other relevant organizations as appropriate, should encourage as far as possible combined treatment/disposal facilities for hazardous wastes in small and medium-sized industries;

(g) Governments should promote identification and clean-up of sites of hazardous wastes in collaboration with industry and international organizations. Technologies, expertise and financing should be available for this purpose, as far as possible and when appropriate with the application of the polluter-pays principle;

(h) [Governments should ascertain that their military establishments conform with strict environmental norms in their treatment and disposal of hazardous wastes.]

(b) Data and information

24. The following activities should be undertaken:

(a) Governments, international and regional organizations, and industry should facilitate and expand the dissemination of technical and scientific information dealing with the various health aspects of hazardous wastes, and promote its application;

(b) Governments should establish notification systems and registries of exposed populations and adverse health effects and of databases on risk assessments of hazardous wastes;

(c) Governments should endeavour to collect information on those who generate or dispose/recycle hazardous wastes and provide such information to the individuals and institutions concerned.

~~25. [Large industrial enterprises, including transnational corporations, should:~~

~~(a) Maintain up-to-date environmental, health and safety information for all products and processes used throughout the world and distribute the firm's environmental safety manuals to all employees in all working languages;~~

~~(b) Monitor effluent and emission discharges at all operations throughout the world and publish aggregate data for major pollutants;~~

~~(c) Establish effective information exchange links between controlled affiliates and local businesses, licencees and joint venture partnerships;~~

~~(d) Make detailed environmental, health and safety internal standards and procedures easily available to local governments, trade unions and community organizations in order to ensure better preparedness in case of emergency;~~

~~(e) Survey national disclosure requirements in all operations and ensure compliance.]~~

(c) International and regional cooperation and coordination

26. Governments, according to their capacities and available resources and with the cooperation of the United Nations and other relevant organizations as appropriate, should:

(a) Promote and support the integration and operation at a regional and local level as appropriate, of institutional and interdisciplinary groups that collaborate, according to their capabilities, in activities oriented towards strengthening risk assessment, risk management and risk reduction with respect to hazardous wastes;

(b) Support capacity-building and technological development and research in developing countries in connection with human resource development, particular support to be given to consolidate the networks;

(c) Encourage self-sufficiency in hazardous waste disposal in the country of origin to the extent environmentally sound and feasible

~~27. [Large industrial enterprises, including transnational corporations, should provide technical assistance to host country Governments on risk assessment, monitoring techniques, hazard analysis and related specialized skills.]~~

The transboundary movements that take place should be based on environmental and economic grounds and upon agreements between all states concerned.

...



34. Governments, according to their capacities and available resources and with the cooperation of the United Nations and other relevant organizations and industries, should:

(a) Support national institutions for dealing with hazardous wastes from the regulatory monitoring and enforcement perspectives, including enabling them to implement international conventions;

(b) Develop industry-based institutions for dealing with hazardous wastes and service industries for handling hazardous wastes;

(c) Adopt technical guidelines for the environmentally sound management of hazardous wastes, and support the implementation of regional and international conventions;

(d) Develop and expand international networking between professionals working in the area of hazardous wastes, and maintain an information flow among countries;

(e) Assess the feasibility of establishing and operating national, subregional and regional hazardous wastes treatment centres. Such centres could be used for education and training, as well as to facilitate and promote the transfer of technologies for the environmentally sound management of hazardous wastes;

(f) Identify and strengthen relevant academic/research institutions or centres for excellence to enable them to carry out education and training activities in the environmentally sound management of hazardous wastes;

(g) Develop a programme for the establishment of national capacities and capabilities to educate and train staff at various levels in hazardous wastes management;

(h) Conduct environmental audits of existing industries to improve in-plant regimes for the management of hazardous wastes.

C. PROMOTION AND STRENGTHENING OF INTERNATIONAL COOPERATION  
IN THE MANAGEMENT OF TRANSBOUNDARY MOVEMENTS OF HAZARDOUS  
WASTES

Basis for action

35. In order to promote and strengthen international cooperation in the management, including control and monitoring, of transboundary movements of hazardous wastes, a precautionary approach should be applied. There is a need to harmonize the procedures and criteria used in various international and legal instruments. There is also a need to develop or harmonize existing criteria for identifying wastes dangerous to the environment and to build monitoring capacities.

Objectives

36. The objectives are as follows:

(a) To facilitate and strengthen international cooperation in the environmentally sound management of hazardous wastes, including control and monitoring of transboundary movements of such wastes, including wastes for recovery, by using internationally adopted criteria to identify and classify hazardous wastes and to harmonize relevant international legal instruments;

(b) To adopt a ban on or prohibit, as appropriate, the export of hazardous wastes to countries that do not have the capacity to deal with those wastes in an environmentally sound way, or that have banned the import of such wastes;

(c) To promote the development of control procedures for the transboundary movement of hazardous wastes destined for recovery operations under the Basel Convention that encourage environmentally sound recycling options.

and economically

Activities

(a) Management-related activities

(i) Strengthening and harmonization of criteria and regulation

37. Governments, according to their capacities and available resources and with the cooperation of United Nations and other relevant organizations, as appropriate, should:

(a) Incorporate the notification procedure called for in the Basel Convention and relevant regional conventions, as well as in their annexes, into national legislation;

(b) Formulate, where appropriate, regional agreements such as the Bamako Convention regulating the transboundary movement of hazardous wastes;

(c) Help promote the compatibility and complementarity of such regional agreements with international conventions and protocols;

(d) Strengthen national and regional capacities and capabilities to monitor and control the transboundary movement of hazardous wastes;

(e) ~~Set up~~, at national and regional levels, systems for monitoring and surveillance of the transboundary movements of hazardous wastes;

(f) Develop guidelines for the assessment of environmentally sound treatment of hazardous wastes;

New insert.  
Attached. →

Consider setting up

as appropriate

Means of implementation

(a) Financing and cost evaluation

28. [Total costs for management and safe disposal of hazardous wastes are roughly estimated to be about \$12 billion per year for OECD countries, \$3 billion per year for Eastern Europe and \$3.5 billion per year for developing countries. An amount of \$500 million per year should be made available through the international community to developing countries for the strengthening of their institutional capacities to safely manage and dispose of their hazardous wastes.]

(b) Scientific and technological means

29. The following activities should be undertaken:

(a) Governments, according to their capacities and available resources and with the cooperation of the United Nations and other relevant organizations and industry as appropriate, should increase support for hazardous waste research management in developing countries;

(b) Governments, in collaboration with international organizations, should conduct research on the health effects of hazardous wastes in developing countries, including the long-term effects on children and women;

(c) Governments should conduct research aimed at the needs of small- and medium-sized industries;

(d) ~~{Large industrial enterprises, including transnational corporations}~~; Governments and international organizations should expand technological research on environmentally sound hazardous waste handling, storage, transport, treatment and disposal, and hazardous waste assessment, management and remediation

*in cooperation with industry*

(e) International organizations should identify relevant and improved technologies for handling, storage, treatment and disposal of hazardous wastes.

(c) Human resource development

30. Governments, according to their capacities and available resources and with the cooperation of the United Nations and other relevant organizations and industry as appropriate, should:

(a) Increase public awareness and information on hazardous waste issues and promote the development and dissemination of public information on hazardous wastes that the general public can understand;

(b) Increase the participation in hazardous waste management programmes of the general public, particularly women, including participation at grass-root levels;

(c) Develop training and education programmes for men and women in industry and government aimed at specific real-life problems - for example, planning and implementing waste minimization programmes, conducting hazardous materials audits or establishing appropriate regulatory programmes;

(d) Promote the training of labour, industrial management and government regulatory staff in developing countries on technologies to minimize and manage hazardous wastes in an environmentally sound manner.

31. The following activities should be undertaken:

(a) Governments, according to their capacities and available resources and with the cooperation of the United Nations, other organizations and non-governmental organizations, should collaborate in developing and disseminating educational materials concerning wastes and their effects on environment and health, for use in schools, by women's groups and by the general public; *human* *hazardous*

(b) Governments, according to their capacities and available resources and with the cooperation of the United Nations and other organizations, should establish or strengthen programmes for the environmentally sound management of hazardous wastes in accordance with, as appropriate, health and environmental standards, and extend surveillance systems to identify adverse effects on populations and the environment of exposure to hazardous wastes;

(c) International organizations should provide assistance to member States for assessing the health and environmental risks resulting from exposure to hazardous wastes, and in identifying their priorities for controlling the various categories or classes of wastes;

(d) Governments, according to their capacities and available resources and with the cooperation of the United Nations and other relevant organizations, should promote centres of excellence for training in waste management, building on appropriate national institutions and encouraging international cooperation including through institutional links between developed and developing countries. *hazardous*

(d) Capacity-building

32. *hazardous* *trans* *corporations* *than in the country of origin*  
Wherever they operate, multinational companies and other large-scale enterprises should be encouraged to introduce policies and commitments to adopt equivalent or not less stringent standards of operation with reference to waste generation and disposal, while Governments are invited to make efforts to establish regulations, ~~that require such standards.~~ *to require environmentally sound management of hazardous wastes.*

33. International organizations should provide assistance to member States for assessing the health and environmental risks resulting from exposure to hazardous wastes, and in identifying their priorities for controlling the various categories or classes of wastes.

UNCED PREPCOM IV: HAZARDOUS WASTES

A/CONF.151/PC/WGII/L.28

Para 37(d) bis: adopted in Plenary Session 31 March 1992

"To promote the development of clear criteria and guidelines within the framework of the Basel Convention and regional conventions as appropriate, for environmentally and economically sound operation(s?) in resource recovery, recycling, reclamation, direct use or alternative uses, and to determine acceptable recovery practices including recovery levels where feasible and appropriate, with a view to preventing abuses and false representation in the above operations."

(g) Develop guidelines for the identification of hazardous wastes at the national level, taking into account existing internationally and, where appropriate, regionally agreed criteria and prepare a list of hazard profiles for the hazardous wastes listed in national legislation;

(h) Develop and use appropriate methods for testing, characterizing and classifying hazardous wastes and adopt or adapt safety standards and principles for managing hazardous wastes in an environmentally sound way.

(ii) Implementation of existing agreements

38. Governments are urged to ratify the Basel Convention and the Bamako Convention, as applicable, and to pursue the expeditious elaboration of related protocols, such as protocols on liability and compensation, and of mechanisms and guidelines to facilitate the implementation of the conventions.

~~(b) International and regional cooperation and coordination~~

~~39. International organizations should cooperate with developing countries in strengthening their institutional and regulatory capacities in order to prevent the illegal transboundary movement of hazardous wastes.~~

Means of implementation

(a) Financing and cost evaluation

40. [Because this programme area covers a relatively new field of operation and because of the lack so far of adequate studies on costing of activities under this programme, no cost estimate is available at present. However, the costs for some of the activities related to capacity-building that are presented under this programme could be considered covered under the costing of programme area B above.

41. The Interim Secretariat for the Basel Convention should undertake studies in order to arrive at a reasonable cost estimate for activities to be undertaken initially until the year 2000.]

(b) Capacity-building

Adoption of normative measures

42. Governments, according to their capacities and available resources and with the cooperation of United Nations and other relevant organizations, as appropriate, should:

(a) Elaborate or adopt policies for the environmentally sound management of hazardous wastes, taking into account existing international instruments;

(b) Make recommendations to the appropriate forums or set up or adapt norms, including the equitable implementation of the polluter-pays principle, and regulatory measures to comply with obligations and principles of the Basel Convention, the Bamako Convention and other relevant existing or future agreements, including protocols, as appropriate, for setting appropriate rules and procedures in the field of liability and compensation for damage resulting from the transboundary movement and disposal of hazardous wastes;

(c) Implement policies for the implementation of a ban or prohibition, as appropriate, of exports of hazardous wastes to countries that do not have the capacity to deal with those wastes in an environmentally sound way or that have banned the import of such wastes;

(d) Study, in the context of the Basel Convention and relevant regional conventions, the feasibility of providing temporary financial assistance in the case of an emergency situation, in order to minimize damage from accidents arising from transboundary movements of hazardous wastes or during the disposal of those wastes.

*D.* PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN  
HAZARDOUS WASTES

Basis for action

43. The prevention of illegal traffic in hazardous wastes will benefit the environment and public health in all countries, particularly developing countries. It will also help to make the Basel Convention and regional international instruments, such as the Bamako Convention and the Fourth Lomé Convention, more effective by promoting compliance with the controls established in those agreements. Article IX of the Basel Convention specifically addressed the issue of illegal shipments of hazardous wastes. Illegal traffic of hazardous wastes may cause serious threats to human health and the environment and impose a special and abnormal burden on the countries into which ~~the wastes are trafficked.~~  
L ~~TELETYPE~~ such shipments.

44. Effective prevention requires ~~the transformation of the genuine concern of countries into action~~ through effective monitoring, enforcement and imposition of ~~severe~~ penalties.  
L appropriate

Objectives

45. The objectives of the programme are:

(a) To reinforce national capacities to detect and halt any illegal attempt to introduce hazardous wastes into the territory of any State in contravention of national legislation and relevant international legal instruments;

(b) To assist all countries, particularly developing countries, in obtaining all appropriate information concerning illegal traffic in hazardous wastes;

(c) To cooperate, within the framework of the Basel Convention, in assisting countries that suffer the consequences of illegal traffic.

Activities

(a) Management-related activities

46. Governments, according to their capacities and available resources and with the cooperation of the United Nations and other relevant organizations, as appropriate, should:

(a) Adopt, where necessary, and implement legislation to prevent the illegal import and export of hazardous wastes;

(b) Develop appropriate national enforcement programmes to monitor compliance with such legislation, detect and deter violations through appropriate penalties and give special attention ~~to these activities that generate wastes that are the subject of known previous illegal traffic,~~

(b) Data and information

✓ ducted to those who are known to have con-  
ducted illegal traffic in haz. wastes and to  
haz. wastes that are particularly susceptible  
to illegal traffic.

47. Governments, ~~with the cooperation of non-governmental organizations and other interested parties,~~ should develop as appropriate, an information network and alert system to assist in detecting illegal traffic in hazardous wastes. Local communities and others could be involved in the operation of such a network and system.

48. Governments should cooperate in the exchange of information on illegal transboundary movements of hazardous wastes and should make such information available to appropriate United Nations bodies such as UNEP and the regional commissions.

(c) International and regional cooperation

49. The regional commissions, in cooperation with and relying upon expert support and advice from UNEP and other relevant bodies of the United Nations system, taking full account of the Basel Convention, ~~should~~ shall continue to monitor and assess the illegal traffic in hazardous wastes, including its environmental, economic and health implications, on a continuing basis, drawing upon the results and experience gained in the joint UNEP/Economic and Social Commission for Asia and the Pacific preliminary assessment of illegal traffic.

50. Countries and international organizations, as appropriate, should cooperate ~~with developing countries in~~ strengthening their institutional and regulatory capacities, in order to prevent the illegal import and export of hazardous wastes. #

↳ in particular of developing countries  
↳ to



STATEMENT BY CANADA  
IN FINAL PLENARY SESSION

T. J. ...

I would like to say a few words about a subject of primary importance to my delegation: the meaning given to the phrase "national governments" in Agenda 21 and other UNCED documents.

The phrase "national government" appears regularly in Agenda 21. In the context of an international conference such as UNCED, the phrase "national governments" is usually taken as the equivalent of "countries" or "states".

However, in a country like Canada, which is a federal state, the phrase "national government" is given a different meaning. It is taken to mean "federal government" as opposed to provincial governments or municipal governments.

In Canada, many of the sectors and resources to be covered in Agenda 21 are matters of provincial jurisdiction rather than federal jurisdiction. The phrase "national governments" could be taken to mean:

1. that Canada would be committed only to those activities which are of federal jurisdiction; or
2. that the federal government would wish to occupy fields which are of provincial jurisdiction.

We usually avoid such problems on the international scene by avoiding phrases such as "national governments" or by making an interpretative statement.

We have come to the conclusion that it would be practically impossible to totally eliminate the phrase "national governments" in Agenda 21. So, allow me to make the following statement.

The first point I want to stress is that the federal and provincial governments of Canada have worked in consultation and in cooperation with regard to UNCED. We are all together committed to the UNCED process and its success.

The second point I want to make is that, as in the case of any commitments by Canada on the international scene, our UNCED obligations would be implemented in accordance with relevant federal and provincial constitutional responsibilities, following appropriate consultations between both levels of government.

To simplify matters, I would ask that this statement be regarded as applicable to all UNCED documents.

Form 675 G (S)  
PROCEDE *Plasdex* P. PHOCS SS  
MONTREAL TORONTO

## SOLID WASTE AND SEWAGE

### **SUMMARY**

PrepCom IV adopted a reasonable text on solid waste and sewage, following fairly straightforward negotiations. The document is an important undertaking for industrialised countries; the degree to which developing countries will be able to meet the goals established will depend to a great extent on the level of assistance from UN agencies and bilateral donors. Linking waste and consumption patterns should move the issue forward and benefit the environment as a whole.

Canada achieved its objectives, notably inclusion of an amendment which recognises that the transboundary movement of solid wastes should be allowed for environmentally sound reasons. Future work in Canada should focus on liaison with provincial authorities, given the shared jurisdictions in this area.

### **DOCUMENTATION**

A/CONF.151/PC/WG.II/L.26 + Corr.1: Agreed Agenda 21 chapter: Environmentally Sound Management of Solid Wastes and Sewage Related Issues (replaces PC/100/Add.25).  
Statement by Canada: on use of term "national governments"

### **CANADIAN OBJECTIVES**

1. To assist developing countries in dealing with their immediate and pressing need to improve fundamental solid waste and sewage services
2. To promote the reduction of current excessive generation of solid waste and sewage in industrialized countries
3. Avoid a commitment to restrict transboundary movements of solid wastes.

### **PREPCOM DISCUSSION**

As expected, this chapter was not contentious and negotiation of the text was fairly straightforward. The main points of discussion centred on the proposal to treat and/or

dispose of wastes within country of origin, target dates, and references to biomedical wastes.

An amendment prepared by Canada and officially submitted as a CANZ (Canada, Australia, New Zealand) proposal, to ensure that the text allowed for flexibility in options for the transboundary movement of wastes (particularly non-hazardous recyclables) was accepted (paragraph 33(c)).

As in other negotiations, developing countries resisted agreement to the proposed target dates until agreement was reached on the issue of financial resources. The final agreed text, therefore, includes a footnote stipulating that the target dates will be re-examined in light of the discussions on finance issues, technology transfer and comparable target setting in other Agenda 21 areas.

Nigeria and Malaysia wanted to include Biomedical waste, but after some urging that the chapter should address only non-hazardous waste (as reflected in paragraph 3), and persuasion that Biomedical waste is listed in the Basel Convention, they agreed to delete this reference.

#### **OUTCOME AND ASSESSMENT**

There was general agreement that PrepCom IV has produced a reasonable document on an issue of great practical concern. The paper is an important undertaking on the part of industrialised countries and should move the issue forward. Linking waste patterns and consumption patterns will be of benefit to the environment as a whole: if consumption patterns are changed other environmental issues may improve.

Canadian objectives have been met. The measures proposed in this chapter should assist developing countries in dealing with their needs to improve fundamental services, provided of course that the financial resources are available and applied to this end. The document is an improvement over the earlier versions in the inclusion of recommendations on low-cost technology development, and by directing international agencies' activities toward developing rather than industrialised countries. The document addresses the need (in Programme Area A, Minimising Wastes) to reduce the generation of solid waste and sewage, particularly in industrialised countries. Finally, Canada was successful in inserting language that recognises the need for flexibility in allowing for the transboundary movement of solid wastes for environmentally sound reasons.

One question the document does raise is whether the role the UN agencies are called to play and the activities they are to undertake are unreasonably extensive.

There are no adverse implications for Canada in the agreed Agenda 21 chapter on Solid Waste/Sewage. Canada will be well prepared to meet the challenges it outlines.

Given Canada's shared jurisdictions (largely provincial) on this issue, it is important to note the statement made by the Canadian delegation at the end of the PrepCom regarding the use of the term "national governments" throughout the Agenda 21 chapters. The statement indicates that Canada's UNCED obligations would be implemented in accordance with relevant federal and provincial constitutional responsibilities, following appropriate consultations between both levels of government.

Follow-up work in Canada should now focus on appropriate liaison with provincial authorities, to address any outstanding issues arising from the adopted text of this and other chapters with federal/provincial implications.

Report prepared by:

Janice Kostash  
UNCED National Secretariat  
953-9304

Jacinthe Seguin  
Environment Canada  
953-1112

*Adopted in Plenary*

*MSZP COPY*

**A**



**General Assembly**

*Note: handwritten changes incorporate with L.26/Ann. I*

Distr.  
GENERAL

A/CONF.151/PC/WG.II/L.26  
25 March 1992

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Fourth session  
New York, 2 March-3 April 1992  
Agenda item 2 (c) of Plenary  
Agenda item 4 (b) of Working Group II

- ① "National" will be deleted in phrase "national governments"
- ② "Recycling" will read "reuse and recycling"
- ③ Consistent terminology will be used to "governments" and "states".

PREPARATIONS FOR THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT ON THE BASIS OF GENERAL ASSEMBLY RESOLUTION 44/228 AND TAKING INTO ACCOUNT OTHER RELEVANT GENERAL ASSEMBLY RESOLUTIONS: CROSS-SECTORAL ISSUES

ENVIRONMENTALLY SOUND MANAGEMENT OF WASTES, PARTICULARLY HAZARDOUS WASTES, AND OF TOXIC CHEMICALS, AS WELL AS PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS AND WASTES: ENVIRONMENTALLY SOUND MANAGEMENT OF SOLID WASTES AND SEWAGE-RELATED ISSUES

Environmentally sound management of solid wastes and sewage-related issues

(Section II, chapter 13 of Agenda 21)

Text submitted by the Chairman on the basis of negotiations held on document A/CONF.151/PC/100/Add.25

I. INTRODUCTION

1. The incorporation of the chapter on environmentally sound management of solid wastes within Agenda 21 is in response to General Assembly resolution 44/228, paragraph 3, in which the Assembly affirmed that the Conference should elaborate strategies and measures to halt and reverse the effects of environmental degradation in the context of increased national and international efforts to promote sustainable and environmentally sound development in all countries, and to section I, paragraph 12 (g) of the same resolution, in which the Assembly affirmed that environmentally sound

management of wastes was among the environmental issues of major concern in maintaining the quality of the Earth's environment and especially in achieving environmentally sound and sustainable development in all countries.

2. Programme areas included under the present section and chapter of Agenda 21 are closely related to the following programme areas of other sections of Agenda 21:

(a) Protection of the quality and supply of fresh water resources (sect. II, chap. 10);

(b) Promoting a sustainable pattern of human settlements (sect. I, chap. 6);

(c) Protection of human health conditions (sect. I, chap. 5);

(d) Changing consumption patterns (sect. I, chap. 3).

3. Solid wastes, as defined in this chapter, include all domestic refuse and non-hazardous wastes such as commercial and institutional wastes, street sweepings and construction debris. In some countries the solid wastes management system also handles human wastes such as night-soil, septic tank sludge and sludge from sewage treatment plants. If these wastes manifest hazardous characteristics they should be treated as hazardous wastes.

4. Environmentally sound waste management must go beyond the mere safe disposal or recovery of wastes that are generated and seek to address the root cause of the problem by attempting to change unsustainable patterns of production and consumption. This implies the application of the integrated life cycle management concept which presents a unique opportunity to reconcile development with environmental protection.

5. Accordingly, the framework for requisite action should be founded on a hierarchy of objectives and focused on the four major waste-related programme areas, as follows:

(a) Minimizing wastes;

(b) Maximizing environmentally sound waste reuse and recycling;

(c) Promoting environmentally sound waste disposal and treatment;

(d) Extending waste service coverage.

6. The four programmes are interrelated and mutually supportive and must therefore be integrated in order to provide a comprehensive and environmentally responsive framework for managing municipal solid wastes. The mix and emphasis given to each of the four programme areas will vary according to the local socio-economic and physical conditions, rates of waste generation and waste composition. All sectors of society should participate in all the programme areas.

59

/...

II. PROGRAMME AREAS

A. Minimizing wastes

Basis for action

7. Unsustainable patterns of production and consumption are increasing the quantities and variety of environmentally persistent wastes at unprecedented rates. The trend could significantly increase the quantities of wastes produced by the end of the century and increase quantities four to fivefold by the year 2025. A preventive waste management approach focused on changes in lifestyles and in production and consumption patterns offers the best chance for reversing current trends.

Objectives

8. The objectives in this area are:

(a) To stabilize or reduce the production of wastes destined for final disposal, over an agreed time-frame, by formulating goals based on waste weight, volume and composition and to induce separation to facilitate waste recycling and reuse;

(b) To strengthen procedures for assessing waste quantity and composition changes for the purpose of formulating operational waste minimization policies utilizing economic or other instruments to induce beneficial modifications of production and consumption patterns.

9. <sup>Governments,</sup> According to their capacities and available resources ~~of their Governments~~ and with the cooperation of the United Nations and other relevant organizations, as appropriate, <sup>should:</sup> ~~should:~~ \*\*

\* (a) By the year 2000<sup>1</sup> ~~all industrialized countries~~ ensure sufficient national, regional and international capacity to access, process and monitor waste trend information and implement waste minimization policies;

(b) By the year 2000 all industrialized countries should have in place programmes to stabilize or reduce, if practicable, production of wastes destined for final disposal, including per capita wastes (where this concept applies), at the level prevailing at that date; and developing countries as well should work towards that goal without jeopardizing their development prospects;

(c) By the year 2000<sup>1</sup> all countries, in particular industrialized countries, should apply programmes to reduce the production of agrochemical wastes, <sup>containers + packages which do not meet hazardous characteristics.</sup> ~~wastes~~.

Agreed footnote 1

\* the target dates mentioned in this document will be reexamined in light of the discussions on finance issues, tech. transfer and comparative target-setting in other Agenda 21 areas.

\*\* wording in sub-para will be editorially amended to harmonise w/ chapeau



Activities

(a) Management-related activities

10. Governments should initiate programmes to achieve sustained minimization of waste generation. Non-governmental organizations and consumer groups should be encouraged to participate in such programmes, which could be drawn up with the cooperation of international organizations, where necessary. These programmes should, wherever possible, build upon existing or planned activities and should:

(a) Develop and strengthen national capacities in research and design of environmentally sound technologies, as well as adopt measures to reduce wastes to a minimum;

(b) Provide for incentives to reduce unsustainable patterns of production and consumption;

(c) Develop, where necessary, national plans to minimize waste generation as part of overall national development plans;

(d) Emphasize waste minimization considerations in procurement within the United Nations system.

(b) Data and information

11. Monitoring is a key prerequisite for keeping track of changes in waste quantity and quality and their resultant impact on health and the environment. Governments, with the support of international agencies, should:

(a) Develop and apply methodologies for country-level waste monitoring;

(b) Undertake data gathering and analysis, establish national goals and monitor progress;

(c) Utilize data to assess environmental soundness of national waste policies as a basis for corrective action;

(d) Input information into global information systems.

(c) International and regional cooperation and coordination

12. The United Nations and intergovernmental organizations, with the collaboration of Governments, should help promote waste minimization by facilitating greater exchange of information, know-how and experience. The following is a non-exhaustive list of specific activities that could be undertaken:

(a) Identifying, developing and harmonizing methodologies for waste monitoring and transferring such methodologies to countries;

- (b) Identifying and further developing the activities of existing information networks on clean technologies and waste minimization;
- (c) Undertaking periodic assessment, collating and analysing country data and reporting systematically, in an appropriate United Nations forum, to the countries concerned;
- (d) Reviewing effectiveness of all waste minimization instruments and identifying potential new instruments that could be used and techniques by which they could be made operational at the country level. Guidelines and codes of practice should be developed;
- (e) Undertaking research on the social and economic impacts of waste minimization at the consumer level.

Means of implementation

(a) Financial and cost evaluation

13. [It is suggested that industrialized countries invest 1 per cent of the revenues derived from total annual solid wastes and sewage towards waste minimization. At current levels this would amount to about \$6.5 billion annually, of which \$1.8 billion is required for minimizing municipal solid wastes.]

(b) Scientific and technological means

14. Waste minimization technologies and procedures will need to be identified and widely disseminated. This work should be coordinated by national Governments with the cooperation and collaboration of non-governmental organizations, research institutions and appropriate organizations of the United Nations and could include the following:

(a) Undertaking a continuous review of the effectiveness of all waste minimization instruments and identifying potential new instruments that could be used and techniques by which instruments could be made operational at the country level. Guidelines and codes of practice should be developed;

(b) Promoting waste prevention and minimization as the principal objective of national waste management programmes;

(c) Promoting public education and a range of regulatory and non-regulatory incentives to encourage industry to change product design and reduce industrial process wastes through cleaner production technologies and good housekeeping practices and to encourage industries and consumers to use types of packaging that can be reused, ~~in particular refillable and recyclable packaging;~~

*Lsafely*

(d) Execute, in accordance with national capacities, demonstration and pilot programmes to optimize waste minimization instruments;

(e) Establish procedures for adequate transport, storage conservation and management of agricultural products, foodstuffs and other perishable goods in order to reduce loss of these products, which results in the production of solid waste;

(f) Facilitate the transfer of waste reduction technologies to industry, particularly in developing countries and establish concrete national standards for effluents and solid waste, taking into account, inter alia, raw material use and energy consumption.

(c) Human resources development and the public in general.

15. Human resources development for waste minimization not only should be targeted at professionals in the waste management sector but also should seek to obtain the support of citizens and industry. Human resources development programmes must therefore aim to raise consciousness and educate and inform concerned groups. Countries should incorporate within school curricula the principles and practices of preventing and minimizing wastes and material on the environmental impacts of waste.

where appropriate

B. Maximizing environmentally sound waste reuse and recycling

Basis for action

16. The exhaustion of traditional disposal sites, stricter environmental controls governing waste disposal and increasing quantities of more persistent wastes, particularly in industrialized countries, have all contributed to a rapid increase in the cost of waste disposal services. Costs could double or triple by the end of the decade. Some current disposal practices pose a threat to the environment. As the economics of waste disposal services change, waste recycling and resource recovery are becoming increasingly cost-effective. Future waste management programmes should take maximum advantage of resource-efficient approaches to control of wastes. These activities should be carried out in conjunction with public education programmes. It is important that markets for products from reclaimed materials be identified in the development of recycling programmes.

Objectives

17. ~~One objective is~~ to strengthen and increase national waste recycling systems.

18. ~~Another objective is~~ to create a model internal waste recycling programme for waste streams, including paper within the United Nations system.

19. ~~A third objective is~~ to make available information, techniques and appropriate policy instruments to encourage and make operational waste recycling schemes.

*Governments,*  
20. ~~According to their capacities and available resources of their Governments,~~  
and with the cooperation of the United Nations and other relevant  
organizations, as appropriate, ~~should~~\*

(a) By the year 2000<sup>1</sup> countries should promote sufficient financial and technological capacities at the regional, national and local levels, as appropriate, to implement waste recycling policies and actions;

(b) By the year 2000<sup>1</sup> all industrialized countries and by the year 2010<sup>1</sup> all developing countries should have a national programme, including to the extent possible targets for efficient waste recycling.

Activities

(a) Management-related activities:

21. ~~National~~ *including* Governments and institutions and non-governmental organizations, together with consumer, women's and youth groups, in collaboration with appropriate organizations of the United Nations, should launch programmes to demonstrate and make operational enhanced waste reuse and recycling. These programmes should, wherever possible, build upon existing or planned activities and should:

(a) Develop and strengthen national capacity to reuse and recycle an increasing proportion of wastes;

(b) Review and reform national waste policies to provide incentives for waste recycling;

(c) Develop and implement national plans for waste management that take advantage of, and give priority to, waste recycling;

(d) Modify existing standards or purchase specifications to avoid discrimination against recycled materials, taking into account the saving in energy and raw materials;

(e) Develop public education and awareness programmes to promote the use of recycled products.

(b) Data and information

22. Information and research is required to identify promising socially acceptable and cost-effective forms of waste reuse and recycling relevant to each country. For example, supporting activities undertaken by national and local government in collaboration with the United Nations and other international organizations could include:

(a) Undertaking an extensive review of options and techniques for reuse and recycling all forms of municipal solid wastes. Policies for reuse and recycling should be made an integral component of national and local waste management programmes;

\* wording in sub-para will be editorially amended to harmonise w /...  
chapter.

(b) Assessing the extent and practice of waste reuse and recycling operations currently undertaken and identifying ways by which these could be increased and supported;

(c) Increasing funding for research pilot programmes to test various options for reuse and recycling, including the use of small-scale, cottage-based recycling industries; compost production; treated waste-water irrigation; and energy recovery from wastes;

(d) Producing guidelines and best practices for waste reuse and recycling;

(e) Intensifying efforts, at collecting, analysing and disseminating, to key target groups, relevant information on waste issues. Special research grants could be made available on a competitive basis for innovative research projects on recycling techniques;

(f) Identifying potential markets for recycled products.

(c) International and regional cooperation and coordination

~~23. The international support agencies in general and appropriate United Nations organizations in particular should cooperate with Governments in generating the necessary information and providing the necessary stimulus for encouraging waste reuse and recycling in countries, in particular, the international community should:~~

(a) Undertake ~~in cooperation with national Governments~~ a periodic review of the extent to which countries reuse and recycle their wastes;

(b) Review the effectiveness of techniques for and approaches to waste recycling and ways of enhancing their application in countries;

(c) Review and update international guidelines for the safe reuse of wastes;

(d) Establish, appropriate programmes to support the small communities' waste recycling industries in developing countries.

Means of implementation

(a) Financial and cost evaluation

24. [If all countries devoted 1 per cent of waste-related municipal revenues to safe waste reuse schemes at current rates those revenues would constitute annual worldwide expenditures of about \$8 billion, of which \$2.3 billion would be required exclusively for reutilizing solid wastes. It is proposed that the international community direct \$0.85 billion to accelerate safe waste reuse in developing countries, of which \$0.25 billion relates to solid wastes.]

23. Governments through bilateral and multilateral cooperation, including through the UN + other relevant international organisations, as appropriate, ... should:

25. [It is proposed that funding be increased to international organizations to enable them to support these efforts by about \$5 million annually. Half of this amount relates to solid wastes.]

(b) Scientific and technological means

26. The transfer of technology should support waste recycling and reuse by the following means:

(a) Including the transfer of recycling technologies, such as machinery for reusing plastics, within bilateral and multilateral technical cooperation and aid programmes; *Rubber + paper*

(b) Developing and improving existing technologies, especially indigenous technologies, and facilitating their transfer under ongoing regional and interregional technical assistance programmes;

(c) Facilitating the transfer of waste reuse and recycling technology.

27. Incentives for waste recycling are numerous. Countries could consider the following options to encourage industry, institutions, commercial establishments and individuals to recycle wastes instead of disposing of them:

(a) Offering incentives to local and municipal authorities that recycle the maximum proportion of their wastes;

(b) Providing technical assistance to informal waste recycling operations;

(c) Applying economic and regulatory instruments, including tax incentives, to support the principle that generators of wastes pay for their disposal;

(d) Providing legal and economic conditions conducive to investments in waste recycling;

(e) Implementing specific mechanisms such as deposit/refund systems as incentives for recycling;

(f) Promoting the separate collection of recyclable parts of household wastes;

(g) Providing incentives to improve the marketability of technically recyclable waste;

(h) Encouraging the use of recyclable materials, particularly in packaging, where feasible;

(i) Encouraging the development of markets for recycled goods by establishing programmes.

(c) Human resources development

28. Training will be required to reorient current waste management practices to include waste reuse and recycling. Governments, in collaboration with United Nations international and regional organizations, should undertake the following indicative list of actions:

(a) Including waste recycling in in-service training programmes as integral components of technical cooperation programmes on urban management and infrastructure development;

(b) Expanding training programmes on water supply and sanitation to incorporate techniques and policies for waste reuse and recycling;

~~reuse~~ + recycling in school curricula and relevant general educational courses;

(d) Encouraging non-governmental organizations, community-based organizations and women's, youth and public interest group programmes, in collaboration with local municipal authorities, to mobilize community support for waste recycling through focused community-level campaigns.

(d) Capacity-building

29. Capacity-building to support increased waste recycling should focus on the following areas:

(a) Making operational national policies and incentives for waste management;

(b) Enabling <sup>reuse +</sup> local and municipal authorities to mobilize community support for waste recycling by involving and assisting informal sector waste recycling operations and undertaking waste management planning that incorporates resource recovery practices.

C. Promoting environmentally sound waste disposal and treatment

Basis for action

30. Even when wastes are minimized, some wastes will still remain. Even after treatment, all discharges of wastes have some residual impact on the receiving environment. Consequently, there is scope for improving waste treatment and disposal practices such as, for example, avoiding the discharge of sludges at sea. In developing countries the problem is of a more fundamental nature: less than 10 per cent of urban wastes receive some form of treatment and only a small proportion of treatment is in compliance with any acceptable quality standard. Faecal matter treatment and disposal should be accorded due priority given the potential threat of faeces to human health.

### Objectives

31. The objective in this area is to treat and dispose safely of a progressively increasing proportion of the generated wastes.

32. <sup>Governments,</sup> According to their capacities and available resources ~~of their Governments~~ and with the cooperation of the United Nations and other relevant organizations, as appropriate, ~~should:~~\*

(a) By the year 2000<sup>1</sup> all countries should establish waste treatment and disposal quality criteria, objectives and standards based on the nature and assimilative capacity of the receiving environment;

(b) By the year 2000<sup>1</sup> countries should establish sufficient capacity to undertake waste-related pollution impact monitoring and conduct regular surveillance ~~including epidemiological surveillance~~ <sup>where appropriate</sup>;

(c) By the year 1995<sup>1</sup> industrialized countries and by the year 2005 developing countries should ensure that at least 50 per cent of all sewage, waste waters and solid wastes are treated or disposed of in conformity with national or international environmental and health quality guidelines;

(d) By the year 2025<sup>1</sup> countries should dispose of all sewage, waste waters and solid wastes in conformity with national or international environmental quality guidelines.

### Activities

#### (a) Management-related

33. ~~National~~ Governments and institutions and non-governmental organizations together with industries, in collaboration with appropriate organizations of the United Nations, should launch programmes ~~in all parts of the world~~ to improve the control and management of waste-related pollution. These programmes should, wherever possible, build upon existing or planned activities and should:

(a) Develop and strengthen national capacity to treat and safely dispose of wastes;

(b) Review and reform national waste management policies to gain control over waste-related pollution;

(c) Encourage countries to seek waste disposal solutions within their sovereign territory and as close as possible to the sources of origin that are compatible with environmentally sound and efficient management. In a number of countries, transboundary movements take place to ensure that wastes are managed in an environmentally sound and efficient way. Such movements observe the relevant conventions including those that apply to areas that are not under national jurisdiction;

\* wording of sub-para's will be editorially amended to harmonise w  
chapter

....



(d) Develop human wastes management plans giving due attention to the development and application of appropriate technologies and the availability of resources for implementation.

(b) Data and information

34. Standard setting and monitoring are two key elements essential for gaining control over waste-related pollution. The following specific activities are indicative of the kind of supportive actions that could be taken by international agencies such as the United Nations Centre for Human Settlements (Habitat), the United Nations Environment Programme and the World Health Organization:

(a) Assembling and analysing the scientific evidence and pollution impacts of wastes in the environment in order to formulate and disseminate recommended scientific criteria and guidelines for environmentally sound management of solid wastes;

(b) Recommending national and, where relevant, local environmental quality standards based on scientific criteria and guidelines;

(c) Including within technical cooperation programmes and agreements the provision for monitoring equipment and for the requisite training in its use;

(d) Establishing an information clearing-house with extensive networks at the regional, national and local levels to collect and disseminate information on all aspects of waste management, including safe disposal.

(c) International and regional cooperation and coordination

35. ~~The international community, as a whole, and especially appropriate United Nations organizations such as the United Nations Centre for Human Settlements (Habitat), the United Nations Environment Programme, the World Health Organization and the United Nations Industrial Development Organization and professional associations should generate the necessary information and provide the necessary stimulus for encouraging the treatment and safe disposal of wastes in all countries. In particular, the international community should:~~

(a) Identify, develop and harmonize methodologies and environmental quality and health guidelines for safe waste discharge and disposal;

(b) Review and keep abreast of developments and disseminate information on the effectiveness of techniques and approaches to safe waste disposal and ways of supporting their application in countries.

35. Governments through bilateral + multilateral cooperation, including through the UN + other relevant international organisations, as appropriate, should: ...

Means of implementation

(a) Financial and cost evaluation

36. [Safe waste disposal programmes are relevant to both developed and developing countries. In developed countries the focus is on improving facilities to meet higher environmental quality criteria, while in developing countries considerable investment is required to build new treatment facilities.]

37. [Safe waste disposal programmes require a total annual investment in developing countries of \$15.1 billion, of which \$2.7 billion is required exclusively for the safe disposal of solid wastes. If the international community provided one third of this amount, about \$3.4 billion annually would be required, of which about \$1 billion relates to solid wastes.]

38. [About \$5 million annually would be required to strengthen the capacity of international organizations to support these efforts. Half of this amount relates to solid wastes.]

(b) Scientific and technological means

39. Scientific guidelines and research on various aspects of waste-related pollution control will be crucial for achieving the objectives of this programme. Governments, municipalities and local authorities with appropriate international cooperation should:

(a) Prepare guidelines and technical reports on subjects such as the integration of land use planning in human settlements with waste disposal, environmental quality criteria and standards, waste treatment and safe disposal options, industrial waste treatment and landfill operations;

(b) Undertake research on critical subjects such as low-cost, low-maintenance waste-water treatment systems; safe sludge disposal options; industrial waste treatment; and low-technology, ecologically safe waste disposal options;

(c) Transfer technologies on industrial waste treatment processes through transnational corporations and bilateral and multilateral technical cooperation programmes;

(d) Focus on the rehabilitation, operation and maintenance of existing facilities and technical assistance on improved maintenance practices and techniques followed by the planning and construction of waste treatment facilities;

(e) Establish programmes to maximize the source segregation and safe disposal of the hazardous components of municipal solid waste;

(f) Ensure the investment and provision of waste collection facilities with the concomitant provision of water services and with an equal and parallel investment and provision of waste treatment facilities.

(c) Human resources development

40. Training would be required to improve current waste management practices to include safe collection and waste disposal. The following is an indicative list of actions that should be undertaken by Governments in collaboration with international agencies:

(a) Provision of both formal and in-service training focused on pollution control, waste treatment and disposal technologies, and operation and maintenance of waste-related infrastructure. Intercountry staff exchange programmes should also be established;

(b) Undertaking of the requisite training for waste-related pollution monitoring and control enforcement.

(d) Capacity-building

41. Institutional reforms and capacity-building will be indispensable if countries are to be able to quantify and mitigate waste-related pollution. Activities to achieve this objective should include:

(a) Creation and strengthening of independent environmental control bodies at national and local levels. International organizations and donors should support needed upgrading of manpower skills and provision of equipment;

(b) Empowering of pollution control agencies with the requisite legal mandate and financial capacities to carry out their duties effectively.

D. Extending waste service coverage

Basis for action

42. By the end of the century over 2.0 billion people will be without access to basic sanitation, and an estimated half of the urban population in developing countries will be without adequate solid waste disposal services. As many as 5.2 million people, including 4 million children under five years of age, die each year from waste-related diseases. The health impacts are particularly severe for the urban poor. The health and environmental impacts of inadequate waste management, however, go beyond the unserved settlements themselves and result in water, land and air contamination and pollution over a wider area. Extending and improving waste collection and safe disposal services are crucial to gaining control over this form of pollution.

Objectives

43. The overall objective of this programme is to provide health-protecting, environmentally safe waste collection and disposal services to all people. According to the capacities and available resources of their Governments and with the cooperation of the United Nations and other relevant organizations, as appropriate, should ensure that:

(a) By the year 2000<sup>1</sup> all countries have the necessary technical, financial and human resource capacity to provide waste collection services commensurate with needs;

(b) By the year 2025<sup>1</sup> all urban populations are provided with adequate waste services;

(c) By the year 2025<sup>1</sup> full urban waste service coverage is maintained and ~~full rural~~ coverage with sanitation achieved in all rural areas.

Activities

(a) Management-related

44. Governments, according to their capacities and available resources and with the cooperation of the United Nations and other relevant organizations, as appropriate, should:

(a) Establish financing mechanisms for waste management service development in deprived areas including appropriate modes of revenue generation;

(b) Apply the "polluter pays" principle where appropriate by setting waste management charges at rates that reflect the costs of providing the service and ensure that those who generate the wastes pay the full cost of disposal in an environmentally safe way;

(c) Encourage institutionalization of communities' participation in planning and implementation procedures for solid waste management.

(b) Data and information

45. Governments in collaboration with the United Nations and international agencies should undertake the following:

(a) ~~To~~ Develop and apply methodologies for waste monitoring;

(b) ~~To assume responsibility for~~ <sup>Undertake</sup> data gathering and analysis ~~in order~~ to establish goals and monitor progress;

(c) ~~To~~ Input information into a global information system building upon existing systems;

(d) ~~25~~ Strengthen the activities of existing information networks in order to disseminate focused information on the application of innovative and low-cost alternatives for waste disposal to targeted audiences.

(c) International and regional cooperation and coordination

46. Many United Nations and bilateral programmes exist that seek to provide water supply and sanitation services to the unserved. The Water and Sanitation Collaborative Council, a global forum; currently acts to coordinate development and encourage cooperation. Even so, given the ever-increasing numbers of unserved urban poor populations and the need to address, in addition, the problem of solid waste disposal, additional mechanisms are essential to ensure accelerated coverage of urban waste disposal services. The international community in general and selected United Nations organizations in particular should:

(a) Launch a settlement infrastructure and environment programme following the United Nations Conference on Environment and Development to coordinate the activities of all agencies of the United Nations system involved in this area and include a clearing-house for information dissemination on all waste management issues;

(b) Undertake and systematically report on progress in providing waste services to those without;

(c) Review effectiveness of techniques for and approaches to increasing coverage and identify innovative ways of accelerating the process.

Means of implementation

(a) Financial and cost evaluation

47. [Extending waste service coverage to unserved populations is relevant mainly to developing countries. A total annual investment for extending waste service coverage in accordance with the schedule indicated in programme objectives is estimated at \$7.5 billion of which \$1.6 billion pertains to solid waste service expansion. Assuming one third of these costs was financed by the international community, the concessional assistance requirements would be about \$2.6 billion, of which \$0.6 billion relates to solid wastes services.]

48. [About \$8 million annually will be needed to strengthen the capacity of international organizations to support these efforts. Half of this amount relates to solid wastes.]

(b) Scientific and technological means

49. National Governments and institutions, together with non-governmental organizations, should, in collaboration with appropriate organizations of the United Nations, launch programmes in different parts of the developing world to extend waste services to the unserved populations. These programmes should, wherever possible, build upon and reorient existing or planned activities.

50. Policy changes at the national and local levels could enhance the rate of waste service coverage extension. These changes should include the following:

(a) Giving full recognition to and using the full range of low-cost options for waste management including, where appropriate, their institutionalization and incorporation within codes of practice and regulation;

(b) Assigning high priority to the extension of waste management services, as necessary and appropriate, to all settlements irrespective of their legal status giving due emphasis to meeting the waste disposal needs of the unserved, especially the unserved urban poor;

(c) Integrating the provision and maintenance of waste management services with other basic services such as water-supply and storm-water drainage.

51. Research activities could be enhanced. Countries, in cooperation with appropriate international organizations and non-governmental organizations should, for instance:

(a) Find solutions and equipment for managing wastes in areas of concentrated populations. In particular, there is a need for appropriate refuse storage and collection systems and cost-effective and hygienic human waste disposal options; *Land on small islands.*

(b) Prepare and disseminate guidelines, case-studies, policy reviews and technical reports on appropriate solutions and modes of service delivery to unserved low-income areas;

(c) Launch campaigns to encourage active community participation involving women's and youth groups in management of waste, particularly household waste;

(d) Promote intercountry transfer of relevant technologies, especially technologies for high-density settlements.

(c) Human resources development

52. International organizations and national and local Governments, in collaboration with non-governmental organizations, should provide focused training on low-cost waste collection and disposal options, particularly techniques for their planning and delivery. Intercountry staff exchange programmes among developing countries could form part of such training. Particular attention should be given to upgrading the status and skills of management-level personnel in waste management agencies.

53. Improvements in management techniques are likely to yield the greatest returns in terms of improving waste management service efficiency. The United Nations, international organizations and financial institutions should, in collaboration with national and local Governments, develop and render

operational management information systems (MIS) for municipal record keeping and accounting and for efficiency and effectiveness assessment.

(d) Capacity-building

54. National Governments and institutions and non-governmental organizations, with the collaboration of appropriate organizations of the United Nations, should develop capacities to implement programmes to provide waste collection and disposal services to the unserved populations. Some activities under the programmes should include the following:

(a) Establishing a special unit within current institutional arrangements to plan and deliver services to the unserved poor communities with their involvement and participation;

(b) Making revisions to existing codes and regulations to permit the use of the full range of low-cost alternative technologies for waste disposal.

(c) Building institutional capacity and developing procedures for undertaking service planning and delivery.

-----

# STATEMENT BY CANADA IN FINAL PLENARY SESSION

I would like to say a few words about a subject of primary importance to my delegation: the meaning given to the phrase "national governments" in Agenda 21 and other UNCED documents.

The phrase "national government" appears regularly in Agenda 21. In the context of an international conference such as UNCED, the phrase "national governments" is usually taken as the equivalent of "countries" or "states".

However, in a country like Canada, which is a federal state, the phrase "national government" is given a different meaning. It is taken to mean "federal government" as opposed to provincial governments or municipal governments.

In Canada, many of the sectors and resources to be covered in Agenda 21 are matters of provincial jurisdiction rather than federal jurisdiction. The phrase "national governments" could be taken to mean:

1. that Canada would be committed only to those activities which are of federal jurisdiction; or
2. that the federal government would wish to occupy fields which are of provincial jurisdiction.

We usually avoid such problems on the international scene by avoiding phrases such as "national governments" or by making an interpretative statement.

We have come to the conclusion that it would be practically impossible to totally eliminate the phrase "national governments" in Agenda 21. So, allow me to make the following statement.

The first point I want to stress is that the federal and provincial governments of Canada have worked in consultation and in cooperation with regard to UNCED. We are all together committed to the UNCED process and its success.

The second point I want to make is that, as in the case of any commitments by Canada on the international scene, our UNCED obligations would be implemented in accordance with relevant federal and provincial constitutional responsibilities, following appropriate consultations between both levels of government.

To simplify matters, I would ask that this statement be regarded as applicable to all UNCED documents.



Form 675 G (S)  
PROCEDE *Piasdex* \* PROCESS  
MONTREAL TORONTO

## RADIOACTIVE WASTES

### **SUMMARY**

The stalemate at the end of PrepCom III as to whether there would even be an Agenda 21 chapter on Radioactive Waste was successfully overcome by agreement, with the exception of one paragraph, on a relatively neutral text. The unresolved issue deals with the disposal of radioactive waste near the marine environment.

Canada achieved its objectives for this chapter. The text does not pre-empt the work being undertaken in other international fora, including the IAEA and the London Dumping Convention. It does not refer specifically to transmutation, nor does it call for the "prevention" of radioactive waste.

### **DOCUMENTATION**

A/CONF.151/PC/WG.II/L.27 + Corr.1: Agreed Agenda 21 Chapter: Safe and Environmentally Sound Management of Radioactive Wastes (replaces PC/100/Add.4).  
USA Proposal for paragraph 5(c): Not accepted. Attached for information (see PrepCom Discussion)

### **CANADIAN OBJECTIVES**

1. Seek to delete the wording "to prevent and minimise" radioactive waste.
2. Avoid language recommending that current international work on radioactive wastes be legally binding. Rather, seek wording that would recommend the speedy completion of this work before any decision is made regarding legally binding international instruments.
3. Replace specific reference to "transmutation" with wording that allows flexibility in determining direction of research efforts.

### **PREPCOM DISCUSSION**

Unexpectedly, PrepCom IV discussion was not a sterile and futile replay of the issue of whether there would even be an Agenda 21 chapter on Radioactive Waste. The USA, whose position at PrepCom III of adamantly opposing any inclusion of this issue in Agenda 21 caused a stalemate, opened the

discussion with a softened stance: while clearly reiterating their preference for excluding Radioactive Waste, they were willing to consider a text providing it was "neutral and objective". The discussion was therefore able to focus on issues raised in the draft text.

By and large, the camps that formed in the discussion were not based on a North/South ideological split as occurred in some of the other Agenda 21 chapter debates, but were generally based on whether the countries have a significant nuclear energy programme.

A notable exception was a proposal to introduce military radioactive waste into the text which pitted Sweden against the USA. In the spirit of compromise, to achieve inclusion of Radioactive Waste in Agenda 21, countries agreed not to include reference to military waste if the wording in the Earth Charter accommodated their concerns. During the final Plenary debate on the Earth Charter no delegation raised this issue; it should therefore be safe to assume that the debate will not be reopened on this particular issue at Rio.

A second subject of considerable discussion, and which was unresolved in the end, was the disposal of radioactive waste "into, near or under the seabed". The most vocal countries on this issue were Sweden, USA, Mexico, Kenya and Nigeria. It should be noted that Sweden is the only country so far to have a low-level radioactive waste disposal facility under the seabed. Apparent consensus was reached on this issue (paragraph 5(c)) at the last Working Group meeting, but the USA later backed off, presumably on instructions from Washington, and introduced an alternative proposal (attached for information) which was unacceptable to all other delegations.

The text presented to Plenary included the supposed consensus language of paragraph 5(c) which the USA in a brief statement requested to be put in square brackets. The matter should have ended there but Colombia, supported by Mexico and Guatemala, requested that the words "and in" be inserted following "near" the marine environment, on the grounds that the paragraph was square-bracketed anyway. Finland and the Netherlands then promptly requested that this insert be also square-bracketed. Fortunately, the Chair cut off discussion at that point, and the final text of the Radioactive Waste chapter was adopted with the whole of paragraph 5(c) in square brackets and an additional set of square brackets within the paragraph itself.

The final point which raised some temperatures was the question of regional conventions on radioactive waste, which was vigorously promoted by Australia, New Zealand and Papua

New Guinea. Various draft texts created confusion about what the issue really was. The final agreed language (paragraph 5(e)) is so vague and full of caveats that it doesn't really entail any binding commitments and all countries supported it in the end.

A late proposal introduced from the floor by Libya regarding public awareness was accepted with several modifications but little thorough discussion; paragraph 8(c) notes that states should establish or support a "reference documentation centre for public awareness on the harmful effects of improperly managed radioactive wastes".

#### OUTCOME AND ASSESSMENT

The text of this chapter can be seen as an achievement on several counts. From the Canadian perspective, all objectives have been met:

- . The phrase "to prevent and minimise..." was replaced by "minimise and limit where appropriate the generation of radioactive waste."
- . The text acknowledges that the desirability of a legally binding instrument on the transboundary movement of radioactive waste should be kept under active review under the auspices of the IAEA but does not pre-empt the IAEA's work by specifically calling for such an instrument.
- . A specific reference to transmutation has been replaced by more flexible wording that refers, at the insistence of France and Malaysia, to deep geological disposal but does not specifically mention transmutation.

The agreed text meets the objectives of the countries, including Canada, that were wary of UNCED pre-empting the current national and international activities directed at the safe and environmentally sound management of radioactive wastes. It essentially acknowledges and encourages the work and studies being undertaken in other fora such as the IAEA and the London Dumping Convention and does not jump the gun by specifically calling now for internationally legally binding instruments or a ban on disposal of low-level radioactive wastes at sea. An added bonus would be if, as a result of UNCED, more countries would provide their fair share of funding for activities of the IAEA.

Finally, the fact that there is a chapter, with only one square-bracketed paragraph, following the stalemate at the end of PrepCom III, sends a positive message that the management of radioactive wastes indeed deserves acknowledgement in the UNCED context. Failure to agree any chapter on this issue would no doubt have been a significant

negative rallying point for many countries--especially developing countries--and NGOs.

In addition to follow-up liaison with stakeholders on the outcome of PrepCom IV, the Interdepartmental Working Group could examine the proposal in paragraph 8(c) for a reference documentation centre to see whether there are the makings, with Cabinet approval, of a Canadian initiative which could be submitted in Rio. With regard to the outstanding square-bracketed paragraph, it is unclear how resolution of this issue will be tackled between now and Rio. The Interdepartmental Working Group could also consider whether there could be a role for Canada to play in resolving this question before Rio.

USA PROPOSAL FOR PARA 5(C) OF  
A/CONF.151/PC/WG.II/L.27: RADIOACTIVE WASTES

NOT ACCEPTED. PROVIDED FOR INFORMATION ONLY

"States should take due account of all relevant scientific evidence and applicable internationally agreed principles and guidelines, making appropriate use of precautionary approaches, in determining whether storage or disposal of radioactive wastes into the seabed poses an acceptable risk."

Report prepared by:

Janice Kostash  
UNCED National Secretariat  
953-9304

Further information:

Carmel Letourneau  
EMR  
992-4261



## General Assembly

Distr.  
LIMITED

NOTE: handwritten changes  
incorporate L.27/WG.I

A/CONF.151/PC/WG.II/L.27  
25 March 1992

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE UNITED  
NATIONS CONFERENCE ON ENVIRONMENT  
AND DEVELOPMENT

Fourth session

New York, 2 March-3 April 1992

Agenda item 2 (c) of Plenary

Agenda item 4 (c) of Working Group II

PREPARATIONS FOR THE UNITED NATIONS CONFERENCE  
ON ENVIRONMENT AND DEVELOPMENT ON THE BASIS OF  
GENERAL ASSEMBLY RESOLUTION 44/228 AND TAKING  
INTO ACCOUNT OTHER RELEVANT GENERAL ASSEMBLY  
RESOLUTIONS: CROSS-SECTORAL ISSUES

SAFE AND ENVIRONMENTALLY SOUND MANAGEMENT  
OF RADIOACTIVE WASTES

(Section II, Chapter 14 of Agenda 21)

Text submitted by the Chairman on the basis of negotiations  
held on document A/CONF.151/PC/100/Add.4

### PROGRAMME AREA

PROMOTE THE SAFE AND ENVIRONMENTALLY SOUND  
MANAGEMENT OF RADIOACTIVE WASTES

#### Basis for action

1. Radioactive wastes are generated in the nuclear fuel cycle as well as in nuclear applications (the use of radionuclides in medicine, research and industry). The radiological and safety risk from radioactive wastes vary from very low in short-lived, low-level wastes up to very large for high-level wastes. Annually about 200,000 m<sup>3</sup> of low-level and intermediate-level waste and 10,000 m<sup>3</sup> of high-level waste (as well as spent nuclear fuel destined for final disposal) is generated world wide from the nuclear power production. These volumes are increasing as more nuclear power units are taken into

operation, nuclear facilities are decommissioned and the use of radionuclides increases. The high-level waste contains about 99 per cent of the radionuclides and thus represents the largest radiological risks. The waste volumes from nuclear applications are generally much smaller, typically some tens of cubic metres or less per year and country. However, the activity concentration, especially in sealed radiation sources, might be high, thus justifying very stringent radiological protection measures. The growth of waste volumes should continue to be kept under close review.

2. The safe and environmentally sound management of the radioactive wastes, including their minimization, transportation and disposal, is important, given their characteristics. In most countries with a substantive nuclear power programme technical and administrative measures have been taken to implement a waste management system. In many other countries, still only in preparation for a national nuclear programme or with only nuclear applications, such systems are still needed.

#### Objective

3. To ensure that radioactive wastes are safely managed, transported, stored and disposed of, with a view to protecting human health and the environment, within a wider framework of an interactive and integrated approach to radioactive waste management and safety.

#### Activities

##### Management-related:

4. States, in cooperation with relevant international organizations where appropriate, should undertake the following activities:

(a) ~~To~~ promote policies and practical measures to minimize and limit, where appropriate, the generation of radioactive wastes, and to provide for their safe processing, conditioning, transportation and disposal;

(b) ~~To~~ support efforts within the IAEA to develop and promulgate radioactive waste safety standards or guidelines and codes of practice as an internationally accepted basis for the safe management and disposal of radioactive wastes;  
+ environmentally sound

(c) ~~To~~ promote safe storage, transportation and disposal of radioactive wastes, as well as spent radiation sources and spent fuel ~~destined for final disposal~~, from nuclear reactors, in all countries and in particular in developing countries, by facilitating the transfer of relevant technologies to those countries, and/or the return to the supplier of radiation sources after their use, in accordance with relevant international regulations or guidelines;  
+ environmentally sound

(d) ~~To~~ promote proper planning, including where appropriate environmental impact assessment, of safe management of radioactive waste, including emergency procedures, storage, transportation and disposal, prior to and after activities which generate such waste.  
+ environmentally sound



International and regional cooperation and coordination:

5. ~~The following activities should be undertaken:~~ <sup>States should, in cooperation with relevant international organisations, where appropriate:</sup>

(a) ~~States should~~ Strengthen their efforts to implement the Code of Practice for International Transboundary Movement of Radioactive Waste and, under the auspices of IAEA, in cooperation with relevant international organizations dealing with different modes of transport, keep the question of such movements under active review, including the desirability of concluding a legally binding instrument;

(b) ~~States should~~ Encourage the London Dumping Convention to expedite work to complete studies on replacing the current voluntary moratorium on disposal of low-level radioactive wastes at sea by a ban, taking into account the precautionary approach, with a view to taking a well informed and timely decision on the issue;

(c) ~~States should~~ <sup>not</sup> promote or allow the storage or disposal of high-level, intermediate-level and low-level radioactive wastes near the marine environment, unless, following a precautionary approach, it can be ascertained that such a storage or a disposal is unlikely to cause harm to the marine environment or to interfere with other legitimate uses of the sea;

SEE  
ATTACHE

(d) ~~States should~~ <sup>not</sup> export radioactive wastes to countries which prohibit the import of such wastes, such as the contracting parties to the Bamako Convention, to Lomé IV, or to other relevant conventions, where such prohibition is provided for;

(e) ~~States should~~ <sup>in accordance with int'l law,</sup> as far as applicable to them, respect the decisions, taken by parties to other relevant regional conventions dealing with other aspects of safe and environmentally sound management of radioactive wastes.

Means of implementation

[Financial and cost evaluation:

6. The costs at national level to manage and dispose of radioactive wastes are considerable and will vary, depending on the technology used for disposal.

7. An annual cost of about US\$ 8 million will be needed to implement this programme through international organizations (mainly IAEA) to further develop international regulations, to promote research policies and international cooperation and to support developing countries to take preventive and corrective action.]

Scientific and technological means:

8. States should undertake the following activities in cooperation with international organizations where appropriate:

(a) To promote research and development of methods for the safe and environmentally sound treatment and disposal of high-level radioactive waste;

(b) To conduct research and assessment programmes concerned with evaluating the health and environmental impact of radioactive waste disposal.

→ (c) See attached

Capacity-building (including human resources development):

9. Assistance to developing countries to establish and/or strengthen radioactive waste management infrastructures - including legislation, organizations, trained manpower and facilities for the handling, processing, storage and disposal of wastes, generated from nuclear applications.

(states in cooperation with relevant international organisations should provide, as appropriate:-----

AMENDMENTS TO A/CONF.151/PC/WG.II/L.27: RADIOACTIVE WASTES

ADOPTED IN PLENARY 2 APRIL 1992

Para 5(c)

["Not promote or allow the storage or disposal of high level, intermediate level and low level radioactive waste near [and in] the marine environment unless scientific evidence consistent with the applicable internationally agreed principles and guidelines shows that such storage or disposal poses no unacceptable risk to people and the marine environment or does not interfere with other legitimate uses of the sea, making in this process of consideration appropriate use of the concept of the precautionary approach."]

Para 8(c)

"Establish or support as appropriate a reference documentation centre for public awareness on the harmful effects of improperly managed radioactive wastes."

Form 675 G (5)  
PRICI DI **Plasdex** - PRICI SS  
MONTREAL TORONTO

THE EARTH CHARTER\RIO DECLARATION  
ON ENVIRONMENT AND DEVELOPMENT

**SUMMARY**

Countries, such as Canada, which have been promoting the concept of a concise, short, positive, forward looking, inspirational text as the outcome of the negotiations on the Earth Charter (now called the Rio Declaration) are not entirely satisfied with the draft text of the Rio Declaration. This text, however, may very well be the best we can accomplish in the present circumstances. The level of common understanding among countries is not sufficient at this time to arrive at the inspirational Earth Charter we were hoping for.

The draft Rio Declaration on Environment and Development is a chairman's text of five and half pages composed of a Preamble and 27 Principles drafted along the lines of a United Nations second Committee resolution. The Declaration represents a rapprochement of extremely divergent views on questions that are substantially difficult and politically sensitive. It has been agreed at the Plenary Session, in response to a plea made by the Chairman of PrepCom IV, to transmit the text to Rio, without brackets, for further consideration and finalization.

This text is an extremely fragile construct. General consensus has been extorted from delegations by Tommy Koh. It is not the preferred text of any country, each of them being attached to one or more principles and each of them having difficulties with one or more principles.

Between now and Rio, we will evaluate the bottom-line need for modifications to the text, consult with other countries and assess the likelihood of arriving at a better text taking into consideration that the alternative "better no declaration than a mediocre declaration" is not an option.

**DOCUMENTATION**

A\CONF. 151\PC\WG.III\L.33\Rev.1 Rio Declaration, draft principles proposed by the Chairman

Canadian Statement made by Ambassador Campeau at the Plenary

A\CONF. 151\PC\WG.III\L.23 - Earth Charter, proposal submitted by Canada

A\CONF. 151\PC\WG.III\L.20 - Rio de Janeiro Declaration, proposal submitted by the Group of G-77 and China

### CANADIAN OBJECTIVES

- Participate actively in the development of an Earth Charter: a set of general principles on environment and development - a symbol of the North - South rapprochement.
- Continue to develop forward looking standards in the area of Environmental and Developmental Law.
- Ensure that the wording of certain principles, especially those related to the right to development and the transfer of technology do not go against Canadian interests.

### PREPCOM DISCUSSION

The discussions and negotiations on the Earth Charter turned out to be one of the more contentious issue of PrepCom IV. It became clear, early in the five week meeting, that the Charter/Declaration was among the two top priorities of the G-77 and China. They arrived ready for long and tough negotiations on this issue.

The facts that the UNCED Secretariat had elected not to draft a text as a basis for negotiation, that the text prepared by the Chairman of Working Group III was considered by the G-77 as inappropriate for negotiation, and that many of the OECD countries did not form an homogenous bloc, allowed procedural debate to last until the third week of the PrepCom. At this point, time was running short and the Chairman appealed for negotiation to start. During the whole process the G-77 attempted to impose their approach, their views, their texts, their chairmanship, one procedural debate leading almost inevitably to another.

Negotiations were carried on the basis of a compilation text prepared by the Secretariat, i.e. the G-77 text in which principles extracted from other countries' drafts or alternative text proposed by other delegations were inserted. Negotiations therefore started on a document which had the format, the language, the structure, the approach and the substance of the G-77 draft.

The drafting group, established under the co-chairmanship of India and Norway, negotiated the text for two weeks with better and worse periods but discussions were always tense and characterized by an eminent lack of trust (between 45 to 60 countries were present at every drafting sessions of the "small" drafting group).

Three days before the end of PrepCom the co-chairs arrived at the conclusion that the group had exhausted its mandate. The Chairman of PrepCom IV, Tommy Koh, took on the task of

finalizing the negotiation and established a small drafting team of eight developing and eight developed countries representing various geo-political interests. Canada was represented by the Head of the Australian Delegation on behalf of CANZ.

The draconian chairmanship of Koh did not allow isolated positions to survive and left almost no time for consultation. The text that emerged from this working group was introduced in the plenary as the chairman's text and it was agreed to transmit it to Rio for further consideration and finalization.

#### OUTCOME AND ASSESSMENT

PrepCom IV did produce a draft text. It is not the charter Canada has worked for. It is not particularly even a charter; rather it is a declaration which has good elements, i.e. principles promoted by Canada in its own draft: access to information, public participation, recognition of the traditional knowledge of indigenous people, impact assessment, internalization of environment costs, precautionary approaches, eradication of poverty. The main failing of the text is that the integration of environment and development - the key issue of the Rio Conference - does not come through with the clarity, priority and urgency that it requires. In addition, the right to development is addressed in a way that may be interpreted as a prerequisite to environmental concerns.

The document is considered an unbracketed document, ready to be transmitted to Rio for further consideration and finalization. All delegations who addressed the Plenary session expressed, to different degrees, reservations with the text. Israel objected extremely strongly to principle 23 which called for protection of the environment and natural resources of people under oppression, domination and occupation. The U.S. singled out principle 7, i.e. contribution of developed countries to environmental degradation as being the principle that gave them difficulties. Of all delegations, Canada made the strongest statement expressing disappointment with both the format and the content of the Declaration.

The working group on the Earth Charter will have:

- to review the text to determine if, in its present form, it is acceptable as a package or if Canada should insist that it be re-opened in Rio;
- to decide if this is the document we want our Prime Minister to sign at Rio; and

- to decide if the Declaration should constitute a separate document or be, as proposed by the U.S. delegation, part of Agenda 21.

- to gather the views of other countries.

Given the importance for a declaration to emerge from the Summit, Canada should not stand alone disagreeing with the text. Many delegations at the end of the PrepCom indicated that, although they had reservations with certain principles, they were ready to accept the Declaration as a package.

The text should also be discussed with NGOs, members of the industry and provinces.

Report prepared by:

Louise Cote  
EAITC  
996-2110

Further information:

Christine Cadieux  
EAITC  
996-6399





General Assembly

Distr.  
LIMITED

A/CONF.151/PC/WG.III/L.33/Rev.1  
2 April 1992

ORIGINAL: ENGLISH

---

PREPARATORY COMMITTEE FOR THE UNITED  
NATIONS CONFERENCE ON ENVIRONMENT  
AND DEVELOPMENT

Fourth session  
New York, 2 March-3 April 1992  
Working Group III  
Agenda item 3

PRINCIPLES ON GENERAL RIGHTS AND OBLIGATIONS

Draft principles proposed by the Chairman

Rio Declaration on Environment and Development

Preamble

The United Nations Conference on Environment and Development,

Having met at Rio de Janeiro from 3 to 14 June 1992,

Reaffirming the Declaration of the United Nations Conference on the Human Environment, adopted at Stockholm on 16 June 1972, and seeking to build upon it,

With the goal of establishing a new and equitable global partnership through the creation of new levels of cooperation among States, key sectors of societies and people,

Working towards international agreements which respect the interests of all and protect the integrity of the global environmental and developmental system,

Recognizing the integral and interdependent nature of the Earth, our home,

Proclaims that:

Principle 1

Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.

Principle 2

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

Principle 3

The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

Principle 4

In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.

Principle 5

All States and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world.

Principle 6

The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority. International actions in the field of environment and development should also address the interests and needs of all countries.

Principle 7

States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

Principle 8

To achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies.

Principle 9

States should cooperate to strengthen endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies.

Principle 10

Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

Principle 11

States shall enact effective environmental legislation. Environmental standards, management objectives and priorities should reflect the environmental and developmental context to which they apply. Standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries.

Principle 12

States should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation. Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on an international consensus.

Principle 13

States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction.

Principle 14

States should effectively cooperate to discourage or prevent the relocation and transfer to other States of any activities and substances that cause severe environmental degradation or are found to be harmful to human health.

Principle 15

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

Principle 16

National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.

Principle 17

Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.

Principle 18

States shall immediately notify other States of any natural disasters or other emergencies that are likely to produce sudden harmful effects on the environment of those States. Every effort shall be made by the international community to help States so afflicted.

Principle 19

States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith.

Principle 20

Women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development.

Principle 21

The creativity, ideals and courage of the youth of the world should be mobilized to forge a global partnership in order to achieve sustainable development and ensure a better future for all.

Principle 22

Indigenous people and their communities, and other local communities, have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development.

Principle 23

The environment and natural resources of people under oppression, domination and occupation shall be protected.

Principle 24

Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary.

Principle 25

Peace, development and environmental protection are interdependent and indivisible.

Principle 26

States shall resolve all their environmental disputes peacefully and by appropriate means in accordance with the Charter of the United Nations.

Principle 27

States and people shall cooperate in good faith and in a spirit of partnership in the fulfilment of the principles embodied in this Declaration and in the further development of international law in the field of sustainable development.

-----

RIO DECLARATION ON ENVIRONMENT AND DEVELOPMENT

(Statement made by Ambassador Arthur Campeau)

Mr. Chairman,

From the beginning Canada has advocated a Charter that was short, concise, positive and devoid of legal and U.N. jargon, in order to reach out to all sectors of society and engage our publics in the critical sustainable development debate. The Earth Charter, more than any other document emanating from Rio, was to be the main vehicle to serve this purpose.

Mr. Chairman,

We admire the tremendous efforts employed by you, and those working under your direction, which resulted in the text in front of us. Vous nous avez démontré une fois de plus que vous avez des talents de médiateur qui sont incomparables. Vous avez réussi à réconcilier les vues les plus divergentes, sur des questions qui de par leur substance même sont extrêmement difficiles et politiquement sensibles. Cependant je me dois d'exprimer certaines réserves au nom du Canada quant au ton et à l'approche du document.

Some of our concerns relate to the fact that in places, the compromises reached have produced a document which is still too negative, repetitive, unclear and lacking a sense of vision. Most importantly, the integration of environment and development, the key issue of the Rio Conference, does not come through with the clarity, priority and urgency that it requires.

Mr. Chairman,

I fear we have produced a document suitable for bureaucrats. Whether this is the sort of document appropriate for signing by Heads of State and Government is a matter that we will have to give very serious and close study upon returning home. Given that, we have yet to reach a decision, as to whether this document is to be signed by our political leaders, and our concern that the consequence of certain principles requires further examination, we along with others reserve our position on this text pending further consultation at home and final discussion at Rio.



General Assembly

Distr.  
LIMITED

A/CONF.151/PC/WG.III/L.23  
4 March 1992  
ENGLISH  
ORIGINAL: ENGLISH/FRENCH

PREPARATORY COMMITTEE FOR THE UNITED  
NATIONS CONFERENCE ON ENVIRONMENT  
AND DEVELOPMENT

Fourth session  
New York, 2 March-3 April 1992  
Working Group III  
Agenda item 3

PRINCIPLES ON GENERAL RIGHTS AND OBLIGATIONS

Earth Charter

Proposal submitted by Canada

We, the people of the Earth,

Being the first generation of humankind to have seen our planet from outer space and to have perceived its beauty and fragility in its entirety,

Realizing that the ecological health of the Earth is now in jeopardy, putting at risk the chances of development of all its people, while so many have not even reached a decent standard of living,

Understanding that our common future is based on the fundamental inseparability of humankind from all of nature,

Affirming that, in order to be sustainable, our development requires that we integrate both the environmental and the developmental concerns that prevail at local, regional and global levels,

Aware that the protection of the environment and the achievement of development requires the enhancement of international peace and security, as well as full cooperation among ourselves, both individually and collectively,

Hereby solemnly declare that:

92-10295 3000f (E) 050392

050392

/...



1. All States and people share the responsibility, which is common but differentiated, to conserve, protect and restore the health and integrity of the Earth's ecosystem, including its air, land, water and biological diversity.

2. All States and people shall, for the benefit of future as well as present generations, have the opportunity to achieve full development and equity, while living within the capacities of the Earth's ecosystem.

3. All States and people shall strive for the elimination of poverty as an indispensable component of sustainable development.

4. All States and people shall treat the environment of other States and people, the global commons, as well as the Earth's ecosystem, in a manner at least as favourable as their own environment and consistent with international law and this Charter.

5. All States and people shall recognize and encourage cultural diversity, particularly indigenous lifestyles with a sustainable relationship to the Earth.

6. All States and people, when undertaking activities that may affect the Earth, shall adopt precautionary and preventive approaches, including assessment and management practices which take into account the intrinsic value of the environment.

7. All States and people, when using the Earth's resources, shall adopt the most appropriate environmental technology in order to minimize waste and harm to the environment.

8. All States and people shall strive to ensure that economic activities reflect their full environmental and social costs and benefits.

9. All States and people shall cooperate to promote trade relations that are supportive of local, regional and global sustainable development.

10. All States and people shall promote public education, scientific research and monitoring, and the availability of information concerning the Earth's ecosystem and development, and the relationship between them.

11. All States and people shall ensure public participation in the decision-making processes concerning the environment and development.

12. All States and people shall pursue and encourage the implementation of the principles of this Charter, in cooperation and in accordance with their respective responsibilities and capabilities.

-----



General Assembly

Distr.  
LIMITED

A/CONF.151/PC/WG.III/L.20  
4 March 1992

ORIGINAL: ENGLISH

---

PREPARATORY COMMITTEE FOR THE  
UNITED NATIONS CONFERENCE  
ON ENVIRONMENT AND DEVELOPMENT  
Fourth session  
New York, 2 March-3 April 1992  
Working Group III  
Agenda item 3

PRINCIPLES ON GENERAL RIGHTS AND OBLIGATIONS

Proposal submitted by China and by Pakistan on behalf  
of the States Members of the United Nations that are  
members of the Group of 77

RIO DE JANIERO CHARTER/DECLARATION ON ENVIRONMENT  
AND DEVELOPMENT

Principle 1. National sovereignty over natural resources

States have the sovereign right over their own natural resources. Pursuant to their own environmental and development policies, they have the responsibility to ensure that activities within their jurisdiction do not cause damage to the environment of other States or of areas beyond the limits of their national jurisdiction.

Principle 2. The human being as the centre of environmental concerns

Human beings are at the centre of environmental concerns. In this context, the quality of the environment is dependent on the satisfaction of basic human needs. Human beings should be guaranteed a healthy life, free from hunger, disease and poverty.

Principle 3. Right to development

The right to development is an inalienable right and therefore the development needs of all developing countries shall be treated as a matter of priority.

Principle 4. Integration of environment and development

States and international organizations shall address environmental issues in the process of development by integrating environmental concerns with the imperatives of economic growth and development.

Principle 5. Main responsibility

The major historical and current cause of the continuing deterioration of the global environment is the unsustainable pattern of production and consumption, particularly in developed countries. Thus, the responsibility for containing, reducing and eliminating global environmental damage must be borne by the countries causing such damage, must be in relation to the damage caused and must be in accordance with their respective responsibilities. All countries, in particular developed countries, shall make commitments to address their unsustainable patterns of consumption.

Principle 6. Equity

To meet the needs of present and future generations, considerations of equity must include damage caused to the environment in the past, the growth and development needs of the present generation and the apportionment of equal shares of global environmental space.

Principle 7. Special needs of the developing countries

A new form of international cooperation is essential for addressing sustainable development, in which access to and transfer of environmentally [safe and] sound technology on preferential and concessional terms as well as provision of adequate, new and additional financial resources are of paramount importance for the transition of developing countries to sustainable development.

Principle 8. Environment and trade

States shall cooperate to promote an international economic environment supportive of sustainable development. In this connection, the developed countries shall ensure that their actions are conducive to the growth of the world economy in general and the development of the developing countries in particular. Global environmental considerations cannot justify restrictive trade practices or new forms of conditionality.

Principle 9. Environmental, economic, social and cultural diversity

States shall respect and conserve ecological, economic, social and cultural diversity. Environmental standards that are valid for the most advanced countries may be inappropriate and of unwarranted economic and social cost for the developing countries. Therefore, environmental management objectives and priorities for the developed and developing countries, based on living standards, social and economic conditions as well as natural resource endowments, will be different.

States and peoples recognize the importance of the sustainable use of biological diversity as a fundamental factor of development and will strengthen their efforts in this regard.

Principle 10. Scientific understanding and research and development, and exchange of information

Research, free exchange and transfer of scientific knowledge and experience shall be ensured to strengthen national scientific and technological capacities in developing countries to protect the environment and promote growth and sustainable development.

Principle 11. Endogenous capacity-building

The efforts of the developing countries aimed at endogenous capacity-building in environment and development shall be supported, in order to enable them to take effective preventive and corrective actions.

Principle 12. International and transboundary movement of hazardous activities and substances

Measures taken in a specific country to reduce and/or control activities or projects harmful to the environment shall not lead to the displacement and transfer of these activities or projects to another country. Toxic and hazardous substances and wastes, dangerous genetically modified organisms, and radioactive wastes shall be treated at the point of generation. Transboundary treatment or disposal of these substances shall be banned. Measures shall also be taken to halt the international illicit traffic in toxic and hazardous substances and wastes. The countries of origin and entities involved in such activities shall bear the liability for compensation.

Principle 13. Contamination

States are responsible for the damage caused to the global environment by the use of all weapons of mass destruction. The use of weapons of mass destruction is a crime against both humanity and the environment.

Principle 14. Decentralized management of environment at the national level

At the national level, the management of the environment is best achieved when the issues are dealt with with the full participation of all citizens.

Each individual has the right to a clean and ecologically balanced environment, to be informed of the state of the environment and of all activities that have a negative impact on the environment and to participate in the decisions affecting their environment.

Principle 15. Environmental regeneration

Environmental regeneration is a common concern. Degraded ecosystems and ecological processes shall be rehabilitated. Areas affected by desertification, aridity and drought and areas vulnerable to sea-level rise also deserve special consideration. Therefore, all States and international organizations shall support such efforts of developing countries.

Principle 16. Special situation of the developing countries

The special situation of the developing countries shall be fully taken into account. Underdevelopment, poverty and environmental problems are closely interrelated and environmental protection in developing countries shall be viewed as an integral part of the development process and cannot be considered in isolation from it.

Full recognition shall be given to the special situation, realities and problems of the developing countries in the implementation of the principles of this Declaration.

Principle 17. The right of people under occupation

The environment and natural resources of people under occupation should be protected. Therefore, any policies or measures that may lead to the degradation of their environment or to the depletion of their natural resources shall be immediately halted.

Principle 18. Peaceful settlement of environmental disputes

States shall resolve their environmental disputes peacefully in accordance with the Charter of the United Nations.

-----

Form 675 G (S)  
PROCEDE **Plasdex** \* PROGRESS  
MONTREAL TORONTO

## NATIONAL MECHANISMS AND INTERNATIONAL COOPERATION FOR CAPACITY-BUILDING

### **SUMMARY**

The final decision document on capacity building was adopted unanimously early in the last week of the PrepCom. The chapter places emphasis on the prime responsibility of national governments with respect to endogenous capacity building. The overall objective of the chapter is to improve national, subregional and regional capabilities including those of NGOs. The UNDP is identified as the prime multilateral agency to coordinate capacity building activities but the role of specialized agencies especially UNEP, regional and non-government organizations is also recognized. The UNDP is urged to strengthen its regional capacity to enable it to more effectively carry out this role.

The chapter recommends that countries establish a coordinating committee with assistance from UNDP and UNEP to develop a "country driven participatory and sustainable development strategy" based on the experience of the country reports. All the main Canadian objectives were met although the chapter remains slightly disjointed and could be stronger with respect to calling for more coordination within the UN system and at the regional level. The chapter has been strengthened in terms of clarifying the respective roles of UNDP and UNEP, in pointing out the need for national sustainable development strategies and in emphasizing the importance of involving regional organizations and NGOs.

### **DOCUMENTATION**

A/CONF.151/PC/L.59 Adopted Agenda 21 document: National Mechanisms and International Cooperation for Capacity-Building (replaces PC/100/Add.11).

### **CANADIAN OBJECTIVES**

1. Seek to expand the role proposed for UNDP.
2. Seek to ensure that if the UNDP is assigned a lead role in this area then the General Assembly and UNDP's Governing Council will instruct UNDP to strengthen its own regional capacity.
3. Seek to ensure that this document envisages a role for indigenous regional organizations-- ASEAN, SADCC, the OAS and the OAU--which could, in fact, be better placed to

achieve some of these objectives.

4. Seek to ensure agreement that the fund be created by reallocating existing resources to it.
5. Avoid approval of the creation of a new fund requiring additional Canadian contributions.
6. Seek to ensure that UNEP plays a major role in the planning of this programme.
7. Seek to ensure that the implementation of fund activities appropriately involves other UN agencies (such as UNEP, FAO, WMO, UNESCO), as well as international NGOs (such as IUCN, WRI, WWF).

#### PREPCOM DISCUSSION

The capacity building chapter was discussed in two informal plenary sessions early in the meeting. Delegations intervened with revised language during the first of these sessions and reviewed a revised text based on these interventions during the second session. There was general consensus among all delegations of the importance of the text within the overall implementation of Agenda 21 and the need to strengthen the text. As well all interventions pointed in the same direction as the Canadian objectives, with the possible exception of the G77 wanting additional resources although the issue did not really surface in the capacity building discussions.

Interventions from delegations focused on the need to broaden responsibilities away from UNDP; the need to include UNEP in planning and coordinating at the national level; the need for more emphasis on various regional organizations both within the UN family and outside; the need for more emphasis on NGOs; and most importantly the need for the process to be driven by national governments and not by multilateral or bilateral organizations. Most of the above points were similarly emphasized in the Canadian objectives and thus have been covered in the final text. In addition developed countries were agreed that the paper would be restricted to existing institutions and would call on the UNDP to strengthen its network of regional offices.

The two plenary sessions devoted to this subject were an occasion for a good exchange of views on the subject and an unexpected coherence of views with respect to the role of UNDP and UNEP from developed and developing countries alike. Although it was never expressed openly, many delegations gave the impression of a certain level of frustration with



UNDP both in terms of its relationship to national governments and in its understanding of what was involved in capacity building.

In the end the UNDP has been assigned a coordination and facilitation role in cooperation with UNEP. National governments are called upon to develop consultative processes with all sectors of society and with the assistance of UNDP and UNEP to develop a "country-driven, participatory and sustainable development strategy" based on the experience of the national reports.

#### **OUTCOME AND ASSESSMENT**

The chapter is too long and not well focused but it does contain all the concepts of greatest importance to Canada and leaves room to move forward on a variety of fronts. The financial paragraphs have not been negotiated and will have to be dealt with in Rio.

The negotiations on this particular chapter were a positive experience for both developed and developing countries. This issue clearly represents an area of potential for positive bridge building between north and south with respect to UNCED.

Canada may wish to follow up with UNDP and UNEP and through bilateral assistance programmes to focus on the development of national sustainable development strategies. Several bilateral ODA programmes have already engaged in a cooperative planning process with developing countries in this regard and this could be built on both bilaterally and multilaterally.

Report prepared by:

Barbara Brown  
CIDA  
994-4168

Further information:

Michael Small  
EAITC  
996-4295



General Assembly

Distr.  
LIMITED

A/CONF.151/PC/L.59  
20 March 1992

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE UNITED  
NATIONS CONFERENCE ON ENVIRONMENT  
AND DEVELOPMENT

Fourth session

New York, 2 March-3 April 1992

Plenary

Agenda item 2 (c)

PREPARATIONS FOR THE UNITED NATIONS CONFERENCE ON  
ENVIRONMENT AND DEVELOPMENT ON THE BASIS OF GENERAL  
ASSEMBLY RESOLUTION 44/228 AND TAKING INTO ACCOUNT  
OTHER RELEVANT GENERAL ASSEMBLY RESOLUTIONS:  
CROSS-SECTORAL ISSUES

National mechanisms and international cooperation  
for capacity-building

(Section IV, Chapter 5 of Agenda 21)

Text submitted by the Chairman on the basis of negotiations  
held on document A/CONF.151/PC/100/Add.11

Basis for action

1. The ability of a country to follow sustainable development paths is determined to a large extent by the capacity of its people and its institutions as well as by its ecological and geographical conditions. Specifically, capacity-building encompasses the country's human, scientific, technological, organizational, institutional and resource capabilities. A fundamental goal of capacity-building is to enhance the ability to evaluate and address the crucial questions related to policy choices and modes of implementation among development options, based on an understanding of environmental potentials and limits and of needs as perceived by the people of the country concerned. As a result, the need to strengthen national capacities is shared by all countries.

2. Building endogenous capacity to implement Agenda 21 will require the efforts of the countries themselves in partnership with relevant United Nations organizations, as well as with developed countries. The international community at the national, subregional and regional levels, municipalities, non-governmental organizations, universities and research centres, and business and other private institutions and organizations could also assist in these efforts. It is essential for individual countries to identify priorities and determine the means for building capacity and capability to implement Agenda 21, taking into account their environmental and economic needs. Skills, knowledge and technical know-how at the individual and institutional levels are necessary for institution-building, policy analysis and development management, including the assessment of alternative courses of action with a view to enhancing access to and transfer of technology and promoting economic development. Technical cooperation, including that related to technology transfer and know-how, encompasses the whole range of activities to develop or strengthen individual and group capacities and capabilities. It should serve the purpose of long-term capacity-building and needs to be managed and coordinated by the countries themselves. Technical cooperation, including that related to technology transfer and know-how, is effective only when it is derived from and related to a country's own strategies and priorities on environment and development and when development agencies and Governments define improved and consistent policies and procedures to support this process.

### Objectives

3. The overall objectives of endogenous capacity-building in this programme area are to develop and improve national and related subregional and regional capacities and capabilities for sustainable development, with the involvement of the non-governmental sectors. The programme should assist by:

(a) Promoting an ongoing participatory process to define country needs and priorities in promoting Agenda 21 and to give importance to technical and professional human resource development and development of institutional capacities and capabilities on the agenda of countries, with due recognition of the potential for optimal use of existing human resources as well as enhancement of the efficiency of existing institutions, and non-governmental organizations including scientific and technological institutions;

(b) Reorienting and reprioritizing technical cooperation including that related to technology transfer and know-how process with due attention to the specific conditions and individual needs of recipients, while improving coordination among providers of assistance to support countries' own programmes of action. This coordination should also include non-governmental organizations and scientific and technological institutions, as well as business and industry whenever appropriate;

(c) Shifting time horizons in programme planning and implementation addressing the developing and strengthening of institutional structures to enhance their ability to respond to new longer-term challenges rather than concentrate only on immediate problems;

(d) Improving and reorienting existing international multilateral institutions with responsibilities for environment and/or development matters to ensure that those institutions have the capability and capacity to integrate environment and development;

(e) Improving institutional capacity and capability, both public and private, in order to evaluate the environmental impact of all development projects.

4. Specific objectives include the following:

(a) Each country should aim to complete, as soon as practicable, if possible by 1994, a review of capacity- and capability-building requirements for devising national sustainable development strategies, including those for generating and implementing its own Agenda 21 action programme;

(b) By 1997, the Secretary-General of the United Nations should submit to the General Assembly a report on achievement of improved policies, coordination systems and procedures for strengthening the implementation of technical cooperation programmes for sustainable development, as well as on additional measures required to strengthen such cooperation. That report should be prepared on the basis of information provided by countries, international organizations, environment and development institutions, donor agencies and non-governmental partners.

#### Activities

##### Build a national consensus and formulate capacity-building strategies for implementing Agenda 21

5. As an important aspect of overall planning, each country should seek internal consensus at all levels of society on policies and programmes needed for short- and long-term capacity-building to implement its Agenda 21 programme. This consensus should result from a participatory dialogue of relevant interest groups and lead to an identification of skill gaps, institutional capacities and capabilities, technological and scientific requirements and resource needs to enhance environmental knowledge and administration to integrate environment and development. The United Nations Development Programme in partnership with relevant specialized agencies and other international intergovernmental and non-governmental organizations could assist, upon request of Governments, in the identification of the requirements for technical cooperation including those related to technology transfer and know-how and development assistance for the implementation of Agenda 21. The national planning process together, where appropriate, with national sustainable development action plans or strategies should provide the framework for such cooperation and assistance. The United Nations Development Programme should use and further improve its network of field offices and its broad mandate to assist, using its experience in the field of technical cooperation for facilitating capacity-building at the country and regional levels and making full use of the expertise of other bodies, in particular the

United Nations Environment Programme, the World Bank and regional commissions and development banks, as well as relevant international intergovernmental and non-governmental organizations.

Identify national sources and present requests for technical cooperation, including that related to technology transfer and know-how in the framework of sector strategies

6. Countries desiring arrangements for technical cooperation, including that related to technology transfer and know-how, with international organizations and donor institutions should formulate requests in the framework of long-term sector or subsector capacity-building strategies. Strategies should, as appropriate, address policy adjustments to be implemented, budgetary issues, cooperation and coordination among institutions, human resource requirements, and technology and scientific equipment requirements. They should cover public and private sector needs and consider strengthening scientific training and educational and research programmes, including such training in the developed countries and the strengthening of centres of excellence in developing countries. Countries could designate and strengthen a central unit to organize and coordinate technical cooperation, linking it with the priority-setting and resource allocation process.

Establish a review mechanism of technical cooperation in and related to technology transfer and know-how

7. Donors and recipients, the organizations and institutions of the United Nations system, and international public and private organizations should review the development of the cooperation process as it relates to technical cooperation, including that related to technology transfer and know-how activities linked to sustainable development. To facilitate this process, the Secretary-General could undertake, taking into account work carried out by the United Nations Development Programme and other organizations in preparation for the United Nations Conference on Environment and Development, consultations with developing countries, regional organizations, organizations and institutions of the United Nations system, including regional commissions, and multilateral and bilateral aid and environment agencies, with a view to further strengthening the endogenous capacities of countries and improving technical cooperation, including that related to the technology transfer and know-how process. The following aspects should be reviewed:

(a) Evaluation of existing capacity and capability for the integrated management of environment and development, including technical, technological and institutional capacities and capabilities, and facilities to assess the environmental impact of development projects; and evaluation of abilities to respond to and link up with needs for technical cooperation, including that related to technology transfer and know-how, of Agenda 21 and the global conventions on climate change and biological diversity;

(b) Assessment of the contribution of existing activities in technical cooperation, including that related to technology transfer and know-how, towards strengthening and building national capacity and capability for integrated environment and development management and assessment of the means of improving the quality of international technical cooperation, including that related to technology transfer and know-how;

(c) A strategy for shifting to a capacity- and capability-building thrust that recognizes the need for the operational integration of environment and development with longer-term commitments, having as a basis the set of national programmes established by each country, through a participatory process;

(d) Consideration of greater use of long-term cooperative arrangements between municipalities, non-governmental organizations, universities, training and research centres and business, public and private institutions with counterparts in other countries or within countries or regions. Programmes such as the Sustainable Development Networks of the United Nations Development Programme should be assessed in this regard;

(e) Strengthening of the sustainability of projects by including in the original project design consideration of environmental impacts, the costs of institution-building, human resource development and technology needs, as well as financial and organizational requirements for operation and maintenance;

(f) Improvement of technical cooperation, including that related to technology transfer and know-how and management processes, by giving greater attention to capacity- and capability-building as an integral part of sustainable development strategies for environment and development programmes both in country-related coordination processes, such as consultative groups and round tables, and in sectoral coordination mechanisms to enable developing countries to participate actively in obtaining assistance from different sources.

Enhance the expertise and collective contribution of the United Nations system for capacity- and capability-building initiatives

8. Organizations, organs, bodies and institutions of the United Nations system, together with other international and regional organizations and the public and private sectors, could, as appropriate, strengthen their joint activities in technical cooperation, including that related to technology transfer and know-how, in order to address linked environment and development issues and to promote coherence and consistency of action. Organizations could assist and reinforce countries, particularly least developed countries, upon request, on matters relating to national environmental and developmental policies, human resource development and fielding of experts, legislation, natural resources and environmental data.

9. The United Nations Development Programme, the World Bank and regional multilateral development banks, as part of their participation in national and regional coordination mechanisms, should assist in facilitating capacity- and capability-building at the country level, drawing upon the special expertise and operational capacity of the United Nations Environment Programme in the environmental field as well as of the specialized agencies, organizations of the United Nations system and regional and subregional organizations in their respective areas of competence. For this purpose the United Nations Development Programme should mobilize funding for capacity- and capability-building, utilizing its network of field offices and its broad mandate and experience in the field of technical cooperation, including that related to technology transfer and know-how. The United Nations Development Programme, together with these international organizations, should at the same time continue to develop consultative processes to enhance mobilization and coordination of funds from the international community for capacity- and capability-building, including the establishment of an appropriate database. These responsibilities may need to be accompanied by strengthening of the United Nations Development Programme's own capacities.

10. The national entity in charge of technical cooperation, with the assistance of the United Nations Development Programme resident representatives and the United Nations Environment Programme representatives, should establish a small group of key actors to steer the process, giving priority to the country's own strategies and priorities. The experience gained through existing planning exercises such as the national reports for the United Nations Conference on Environment and Development, national conservation strategies and environment action plans should be fully used and incorporated into a country-driven, participatory and sustainable development strategy. This should be complemented with information networks and consultations with donor organizations in order to improve coordination, as well as access to the existing body of scientific and technical knowledge and information available in institutions elsewhere.

Harmonize the delivery of assistance at the regional level

11. At the regional level, existing organizations should consider the desirability of improved regional and subregional consultative processes and round-table meetings to facilitate the exchange of data, information and experience in the implementation of Agenda 21. The United Nations Development Programme, building on the results of the regional surveys on capacity-building that those regional organizations carried out on the United Nations Conference on Environment and Development initiative, and in collaboration with existing regional, subregional or national organizations with potential for regional coordination, should provide a significant input for this purpose. The relevant national unit should establish a steering mechanism. A periodic review mechanism should be established among the countries of the region with the assistance of the appropriate relevant regional organizations and the participation of development banks, bilateral aid agencies and non-governmental organizations. Other possibilities are to develop national and regional research and training facilities building on existing regional and subregional institutions.

Means of implementation[Financing and costs

12. The cost of bilateral expenditures to developing countries for technical cooperation, including that related to technology transfer and know-how, is about \$15 billion, or about 25 per cent of total official development assistance. The implementation of Agenda 21 will require a more effective use of these funds and additional funding in key areas. [Specific funding requirements are included in each programme area. Support for the Secretary-General's consultative process will require approximately \$1 million.]]

[13. As reflected in paragraph 9, there is a need for a new [funding mechanism coordinated by the United Nations Development Programme] to provide lead and catalytic funding to give effect to a major capacity-building initiative. Amounts suggested could be in the range of \$300-\$500 million per year, rising over five years to some \$1 billion per year. This would include the establishment of a consultative group process that could be managed by the United Nations Development Programme and assisted by a technical advisory committee to mobilize funding from all sources for capacity- and capability-building.]

-----



Form 875 O (S)  
PROCÉDE **Plassax** K - PROCESS  
MONTREAL - TORONTO

## INSTITUTIONS

### **SUMMARY**

Thanks to skilful management by the Malaysian coordinator (Ambassador Razali), PrepCom IV exceeded expectations in terms of producing a clear text on institutions for onward transmission to Rio de Janeiro. Most of the Agenda 21 chapter has been agreed to, with two major options for the UN intergovernmental follow-up mechanism. These are: a) to establish a Sustainable Development Commission reporting to both the UN General Assembly and ECOSOC; or b) to use the ECOSOC itself, rather than setting up a new forum. Delegations also agreed that the follow-up mechanism should be supported by a "highly qualified and competent secretariat support structure." The Secretary-General is requested to report on the staffing implications as soon as practicable.

Delegations also clarified the function of the follow-up mechanism; the role of key UN agencies (in particular UNEP and UNDP) in implementing the outcomes of UNCED and their cooperation with other international organizations; regional and sub-regional cooperation and coordination; national implementation activities (including the preparation of sustainable development plans and reports); and the participation of non-governmental organizations (NGOs) in the relevant UN bodies dealing with sustainable development.

Canada's objectives were achieved. The listing of the two options for the UNCED follow-up mechanism allow for further consideration of optimal UN institutional arrangements for dealing with sustainable development. With respect to other issues, such as rational use of resources, linkages among the bodies dealing with sustainable development issues at all levels, national implementation, and the role of NGOs, virtually all of our proposals were incorporated in the final text. It is expected that all outstanding issues will be resolved in Rio de Janeiro, with detailed modalities for the UN follow-up to be finalized at UNGA 47.

### **DOCUMENTATION**

A/CONF.151/PC/WG.III/CRP.3, Rev.3: Institutions chapter of Agenda 21

### **CANADIAN OBJECTIVES**

1. Explore options regarding the institutional follow-up to UNCED.
2. Ensure that institutional proposals related to the UN system are developed within existing resources.

3. Encourage the regular preparation of national sustainable development plans, based on the results of UNCED.
4. Promote an expanded role for NGOs in the UNCED follow-up process.
5. Clarify the role of the UN system, other international organizations, and regional and sub-regional organizations in implementing the outcomes of UNCED.

#### PREPCOM DISCUSSION

It took the PrepCom Chairman Tommy Koh some time to find an Ambassador willing to take on what appeared to be a daunting task. The UNCED Secretariat, aware of the considerable political sensitivities concerning institutions, did not prepare a chapter for Agenda 21, as they had done for virtually every other issue. Ambassador Razali of Malaysia, the coordinator for institutions, began by holding numerous bilateral and group consultations. He then produced a pragmatic working paper. He avoided dealing with issues on which there were tremendous differences, but he noted that there were a lot of areas of convergence. This surprising consensus had developed over the last several months, based on numerous informal discussions in New York and Geneva and the experience of the ECOSOC reform exercise.

Ambassador Razali presented his paper -- drafted like a chapter of Agenda 21 -- to universal acclaim in Working Group III. The praise notwithstanding, delegations began proposing numerous amendments to the text. Thus began a tedious process, but one with satisfactory results, since the final product was truly a negotiated text. The following is a summary of the salient elements of the text:

Intergovernmental Mechanism: It became apparent early in the negotiations that Prepcom IV was unlikely to agree on a definitive UN body to follow-up the results of UNCED. Ambassador Razali held several meetings just to discuss this issue, but delegations either became polarized over one type of mechanism or lacked instructions to commit themselves to any option. Most delegations (led by Colombia, France, Venezuela, USA, and several African States) favoured establishing a new Sustainable Development Commission which would report to the ECOSOC on coordination matters and the General Assembly on policy matters regarding the integration of environment and development issues. Several others (Argentina, Australia, Kenya, Sweden, UK), however, insisted that the UN had just completed lengthy negotiations to rationalize ECOSOC's work and that this body itself should be the appropriate sustainable development forum in the UN.

They proposed that a third sessional committee or the newly-established high level and/or coordination segments could be utilized.

Other proposals included annual consideration of the UNCED follow-up by the General Assembly Plenary (New Zealand), the creation of a new Main Committee of the GA or a subsidiary body reporting to the GA (Norway), or a separate meeting of the ECOSOC to deal with sustainable development. These proposals were considered either redundant or impractical. Many delegations were neutral or non-committal, explaining that they either had no instructions or could accept a consensus proposal.

In the end, the Sustainable Development Commission and ECOSOC options were forwarded to Rio de Janeiro for action. Despite the best efforts to produce one recommendation, fundamental differences about the need for appropriate political profile versus concerns about the proliferation and duplication of UN bodies and rationalization of the UN's finite resource base, led to an impasse. This is likely to be one of the more difficult issues to be resolved in Rio, but only if the two major camps insist on their respective positions. It is expected that some countries (the EC and some Latin American and African States, for example) will wish to resolve the matter in Rio -- even at high levels -- and may go so far as to get agreement on some basic modalities for the follow-up mechanism. They will wish to ensure that basic principles agreed to in Rio will not be compromised in the subsequent UNGA 47 Second Committee negotiations on the UNCED resolution(s).

Interestingly, at the request of the Africans and Latin Americans, the current options envisage limited membership bodies, rather than universal fora.

UNCED Secretariat: Delegations agreed that a "highly qualified and competent secretariat support structure within the UN Secretariat" is essential for the follow-up of UNCED. The Secretary-General is requested to report, as soon as practicable, on the provisions to be made for staffing, taking into account gender balance and the optimum use of existing resources in the context of current and ongoing restructuring of the UN Secretariat.

Delegations generally supported establishing a separate secretariat structure to support the follow-up mechanism, as well as the UN's own interagency coordination activities. Canada, supported by Australia, Japan, UK, and USA, insisted that any secretariat support structure should be set up within existing resources. The Venezuelans and Colombians had envisaged the UNCTAD Secretariat taking over from the

UNCED Secretariat and ensured the text included a paragraph acknowledging the UNCTAD's recent statement on trade, environment, and development; their idea, however, enjoyed virtually no support, as it was considered impractical.

Benin, Mauritania, and Norway -- which supported the continuation of the Secretariat funded by extrabudgetary resources -- wanted the Secretary-General to review the situation as soon as possible and extend the current mandate of the UNCED Secretariat, with a view to making it a permanent entity within the UN system. This could not necessarily be achieved in the short-term through existing resources, unless the Secretary-General's recent restructuring efforts had freed up funds which could be channelled to support the UNCED Secretariat. In the end, however, Canada succeeded in ensuring that the section on the secretariat reflected our concerns.

During the final plenary UNCED Secretary-General Strong reminded the PrepCom that UNGA 46 had decided to wind down the UNCED Secretariat by the end of 1992. Benin and Mauritania stated that the Secretary-General should prepare his report on the staffing implications as soon as possible so that the UNCED Secretariat could be retained in its entirety. This point was noted, but it is expected that the Secretary-General will prepare his report for action by UNGA 47, rather than UNGA 46, given time and staffing constraints. China pointedly stated that the secretariat support structure should utilize the considerable resources available in the Department of Economic and Social Development (headed by J Chaozu), resulting from the Secretary-General's rationalization of the UN Secretariat. The savings generated by this exercise, along with imminent decisions to rationalize some of the more moribund GA or ECOSOC economic committees should generate enough resources to do the substantive work and service meetings (with assistance from experts in various UN agencies).

National Implementation: Canada succeeded, against stiff resistance by Brazil, in including a reference in the institutions text suggesting that countries should prepare national action plans for the implementation of Agenda 21. The Africans also supported this reference and another one to the preparation of national reports, following on their Environment Ministers' decision to prepare annually both types of reports. Canada, France, Netherlands, and several African countries argued that such plans and reports would be essential for countries to evaluate their "sustainable development performance" domestically; in the case of the developing countries, the plans and reports could be submitted to international organizations (UN, World Bank, etc.) for the purposes of obtaining aid and technical

assistance.

On this latter point, France suggested that one of the functions of the UNCED follow-up mechanism could be to consider reports provided by Governments on the implementation of Agenda 21, including activities they undertake and problems they face, such as on financial resources and technology transfer. Brazil opposed this proposal and, with India, has square-bracketed part of the relevant paragraph in an effort to weaken the commitment to submit such reports to the UN.

Brazil's opposition to preparing national plans and reports and submitting them to international organizations stems from several concerns: a) this is a cumbersome, bureaucratic, and costly exercise; and b) the reports submitted by countries could be used against them by other countries, NGOs, and their own publics to criticize government policies and priorities. The Brazilians wondered whether any country could afford in the long run (politically and financially) to retain the kind of consultation procedures and mechanisms they have developed in preparation for UNCED. For their part, the Brazilians were not sure national reports would remain a fixture, nor would they be particularly useful. The French, however, insist that one of the most important outcomes of UNCED could be a commitment by all countries to establish (or maintain) national consultative and coordinating mechanisms and to prepare plans and reports. They have a lot of support by countries (in particular, Europe, Africa, CANZ, USA) and they will press this point in Rio.

Non-Governmental Organizations (NGOs): Canada led in proposing language to strengthen this section of the text, in particular, highlighting the need for procedures to be established for an expanded role for NGOs, with accreditation based on the procedures adopted for UNCED. The General Assembly is invited, at an early stage, to examine ways of enhancing the involvement of NGOs within the UN system in relation to the UNCED follow-up process. The text also suggests that the UN system should take into account NGO review and evaluation processes in their reports concerning the implementation of Agenda 21. Canada, supported by Australia, New Zealand, the Nordics, France, Netherlands, UK, USA, Argentina, and Colombia, insisted that the text retain these references. The UK stated that the procedure for accrediting and involving NGOs in UNCED should be utilized by other UN fora and conferences.

The institutions chapter also takes note of proposals for NGO follow-up mechanisms, such as the "Guardian for Future

Generations" proposal of Malta and the Costa Rican "Earth Council." The Costa Ricans were clearly delighted to have their proposal included in the text and intend to follow it up in Rio, seeking endorsement (and possible involvement) of Heads of State/Government attending UNCED.

High Level Advisory Body: Several delegations, led by France, had suggested that the follow-up mechanism and the Secretary-General could usefully draw on the advice of an advisory group of experts from various fields (environment, development, science, etc.). Japan proposed that the Secretary-General should set up an "eminent persons group" to advise him on key issues related to sustainable development. Argentina stated that such a group should be considered in the framework of the Secretary-General's efforts to rationalize resources, and bearing in mind that UNEP, on the Global Environment Facility, and the UN Commission on Science and Technology for Development either benefitted from or are science advisory groups with relevant expertise in sustainable development issues. The UK indicated a preference not to establish a new body, unless it was essential for the Secretary-General and the follow-up mechanism.

France attempted to re-draft the paragraph on the advisory body to suggest that intergovernmental bodies dealing with environment and development, the Secretary-General, and the UN system could benefit from such a group and that the Secretary-General should make appropriate recommendations to UNGA 47 on its feasibility. Brazil, Uganda, and Kenya (the latter being a staunch advocate of UNEP) opposed the French proposal, arguing that the body is unnecessary and duplicates existing bodies. Thus, this paragraph remains to be resolved in Rio; however, it enjoys support by most delegations, who believe the idea is worth exploring at UNGA 47 in the context of considering the follow-up mechanism to UNCED.

UN system and other international organizations: For the most part, Ambassador Razali's suggestions for promoting interagency coordination (through the Administrative Committee on Coordination), outlining the role of key UN organizations (UNEP and UNDP) in implementing the outcomes of the Rio Conference, and encouraging complementary linkages between the UN system and other international organizations (e.g. the World Bank) were accepted. The text also incorporated salient elements from an earlier discussion on regional organizations. Canada made several suggestions to strengthen these sections of the text, emphasizing the need for high level coordination within the UN system and the role regional economic and technical cooperation organizations (e.g. OECD, OAS, ASEAN) could play

in cooperation with the UN and other regional bodies. On this last issue, the Secretary-General is requested to prepare a survey of all UNCED recommendations for capacity-building programmes, information networks, task forces and other mechanisms to support the integration of environment and development at regional and sub-regional levels.

With respect to the specific roles of UNEP and UNDP, the language tends to recall salient parts of their existing mandates, but also highlights what delegations consider to be areas in which they should continue to build on their existing strengths (for example, UNEP's catalytic, monitoring, assessment, education, and international agreement functions; UNDP's capacity-building and technical assistance efforts).

Sectoral Issues: As noted earlier, the Venezuelans managed to include a paragraph on UNCTAD's role in the area of sustainable development. The USA, however, insisted on a simple paragraph recalling the interrelationships between development, trade, and environment, as outlined at UNCTAD VIII, thus ensuring there was no implication that UNCTAD broaden its current mandate in this area. The Africans succeeded in highlighting a stronger role for the UN Sudano-Sahelian Office (UNSO) to deal with the desertification and drought crisis, consistent with their strong stand that the international community address what they perceive to be an issue of global significance.

Due to lack of time, Ambassador Razali was not able to take up other sectoral issues which had been referred to Working Group III from the other Working Groups and the Plenary (such as institutional issues arising from the freshwater and oceans chapters of Agenda 21). Canada sought to balance the above references by noting other sectoral proposals, without listing them in any detail. In our statement to the final plenary, we emphasized the need for UNCED to give guidance on institutional follow-up of sectoral and cross-sectoral issues and recommended that the Secretariat compile a list of institutional proposals coming from Working Groups I, II and the Plenary, for consideration at Rio. The UNCED Secretariat has undertaken to do this compilation (which will include recommendations on national, regional, and global mechanisms contained in Agenda 21) and will circulate it several weeks before UNCED.

Women: Canada, Netherlands, and Kenya took the lead in inserting language on women in the text highlighting, inter alia, the principle of gender balance in the proposed secretariat support structure; promoting and strengthening the role of women in implementing Agenda 21 in UNDP recipient countries; and encouraging their participation in



NGO follow-up to UNCED.

Legal Issues: The text contains some references to legal matters and is also notably blank on a general paragraph addressing these issues.

With respect to the location of treaty secretariats, the French had proposed that they should be regrouped in the same location. This was not acceptable to Canada and the UK, which argued that Convention Parties should be able to decide where best to place the treaty secretariat, bearing in mind the rational use of resources, but also offers by countries to be the site of these secretariats. The UK came up with some acceptable language recalling the need for the most efficient use of resources, "including possible co-location of secretariats in the future."

On another issue concerning the consideration by the UNCED follow-up mechanism of reports by Parties to Conventions on their implementation, the question arose as to whether the Parties should be required to present these reports. Two options are currently in square brackets: one which implies regular submission of reports by Parties; another which leaves it up to the Parties to submit their reports. Due to lack of time, this issue could not be resolved in New York; it is expected that it will be quickly dealt with in Rio.

A considerable fracas did, however, erupt in the final plenary with respect to the last section of the institutions paper, concerning "[Legal Matters]". Several delegations, such as Austria, New Zealand, and Portugal, had suggested earlier that this section should include a recommendation to consider questions relating to the prevention and settlement of environmental disputes, with a view to assessing the UN's capacity in this area. Benin had further suggested that the International Court of Justice should set up a separate arbitration chamber. Several countries (Argentina, India, Turkey, USA) objected to either proposal, saying that this issue had not been resolved in the contact group dealing with legal matters and could not be settled in the institutions group. The USA further argued that dispute prevention and settlement mechanisms needed to be tailored for each agreement and that a "generic mechanism" may not meet the requirements among Parties in dispute on a specific question. The UK also expressed some reservations about creating yet another new UN body, when the paper and indeed, Agenda 21, already contained numerous proposals.

Despite several hours of negotiations, delegations were unable to agree even on a text which could be square-bracketed. Ambassador Razali thus chose to simply leave the title of the section in square brackets; he openly

doubted whether delegations could agree on this issue at all.

In the final plenary, New Zealand insisted on retaining previous language and sending it in square brackets to Rio. Several delegations objected, recalling earlier discussions on this subject. After a heated exchange, the PrepCom Chair, Tommy Koh, called for a recess, and following some discussions, issued a decision which was to remain in effect for the rest of the meeting: any amendment which did not enjoy consensus would be rejected. The New Zealand representative attempted to challenge the Chair, but in the end, accepted his decision. The Austrian representative expressed regret that the Chair had decided to proceed in this manner, as this was an important issue for several States committed to this kind of mechanism.

#### OUTCOME AND ASSESSMENT

This text exceeded expectations. The outstanding issues could be fairly easily resolved in Rio, provided delegations show some flexibility with respect to the follow-up mechanism (the modalities of which could be sorted out at UNGA 47). It remains to be seen just how strongly the proponents of "no new institutions" will be, given political interest in ensuring high profile follow-up for UNCED. The Brazilians, Chinese, and Indians, did state, nevertheless, that agreement on institutions is linked to agreement on the "UNCED package", that is, the conventions, Agenda 21, financial resources, technology transfer, and the Rio Declaration. It is entirely possible, however, that an agreement on institutional frameworks for sustainable development could be key for putting into a place a process to resolve any outstanding issues from Rio, as well as addressing future challenges. This may be one of the more positive results from the UNCED process.

Report prepared by:

Alexandra Bezeredi  
EAITC  
Permanent Mission, NY  
(212) 751-5600

Further information:

Michael Small  
EAITC  
996-4295

Non Paper: ref WGI/III/L.31  
1.1.1.1.1

CRP.3/Rev.3 (As revised on 2 April 1992)

## I. BASIS FOR ACTION

1. (Agreed) The mandate of UNCED emanates from GA resolution 44/223 which, inter alia, affirmed that UNCED should elaborate strategies and measures to halt and reverse the effects of environmental degradation in the context of increased national and international efforts to promote sustainable and environmentally sound development in all countries and that the promotion of economic growth in developing countries is essential to address problems of environmental degradation. The intergovernmental follow-up to the Conference process shall be within the framework of the UN system, with the General Assembly being the supreme policy-making forum that would provide overall ~~policy-making~~ guidance to Governments, UN system and relevant treaty bodies. At the same time, governments, as well as regional economic and technical cooperation organizations, have a responsibility to play an important role in the follow-up to UNCED. Their commitments and actions should be adequately supported by the UN system and multilateral financial institutions. Thus, national and international efforts would mutually benefit from one another.

2. (Agreed) In fulfilling the mandate of the Conference, there is a need for institutional arrangements within the UN system in conformity with, and providing input to the restructuring and revitalization of the UN in the economic, social and related fields, and the overall reform of the United Nations, including ongoing changes in the Secretariat. In the spirit of reform and revitalization of the United Nations system, implementation of Agenda 21 and other conclusions of UNCED shall be based on an action- and result-oriented approach and consistent with the principles of universality, democracy, transparency, cost-effectiveness and accountability.

3. (Agreed) The UN system, with its multisectoral capacity and the extensive experience of a number of specialized agencies in various spheres of international cooperation in the field of environment and development, is uniquely positioned to assist Governments establish more effective patterns of economic and social development with a view to achieving the objectives of Agenda 21 and sustainable development.

4. (Agreed) All agencies of the UN system have a key role to play in the implementation of Agenda 21 within their respective competence. To ensure proper coordination and avoid duplication in the implementation of Agenda 21, there should be an effective division of labour between various parts of the UN system based on their terms of reference and comparative advantages. Member

States, through relevant governing bodies, are in a position to ensure that these tasks are carried out properly. In order to facilitate evaluation of agencies' performance and promote knowledge of their activities, all bodies of the UN system should be required to elaborate and publish reports of their activities on the implementation of Agenda 21 on a regular basis. Serious and continuous reviews of their policies, programmes, budgets and activities will also be required.

5.(Agreed) The continued active and effective participation of non-governmental organizations, the scientific community and the private sector as well as local groups and communities are important in the implementation of Agenda 21

6.(Agreed) The institutional structure envisaged below will be based on agreement on financial resources and mechanisms, technology transfer, the Earth Charter and Agenda 21. In addition, there has to be an effective link between substantive action and financial support, and this requires close and effective cooperation and exchange of information between the UN system and the multilateral financial institutions for the follow-up of Agenda 21 within the institutional arrangement.

## II. OBJECTIVES

7.(Agreed) The overall objective is the integration of environment and development issues at national, sub-regional, regional and international levels, including in the UN system institutional arrangements.

8. (Agreed) Specific objectives shall be:

(a)(Agreed) to ensure and review the implementation of Agenda 21 so as to achieve sustainable development in all countries;

(b)(Agreed) to enhance the role and functioning of the UN system in the field of environment and development. All relevant agencies, organizations and programmes of the UN system should adopt concrete programmes for the implementation of Agenda 21 and also provide policy-guidance for UN activities or advice to governments upon request, within their respective areas of competence;

(c)(Agreed) to strengthen cooperation and coordination on environment and development in the United Nations system;

(d)(Agreed) to encourage interaction and cooperation between the United Nations system and other intergovernmental and non-governmental sub-regional, regional and global institutions and

non-governmental organizations in the field of environment and development;

(e)(Agreed) to strengthen institutional capabilities and arrangements required for the effective implementation, ~~monitoring~~ and review of Agenda 21;

*follow-up*

(f)(Agreed) to assist in the strengthening and coordination of national, sub-regional and regional capacities and actions in the areas of environment and development;

(g)(Agreed) to establish effective cooperation and exchange of information between the United Nations organs, organizations, programmes and the multilateral financial bodies, within the institutional arrangements for the follow-up of Agenda 21;

(h)(Agreed) to respond to continuing and emerging issues relating to environment and development;

(i)(Agreed) to ensure that any new institutional arrangements would support revitalization, clear division of responsibilities and the avoidance of duplication in the UN system and depend to the maximum extent possible upon existing resources.

### III. INSTITUTIONAL STRUCTURE

#### A. General Assembly

9. (Agreed) The GA, as the highest level inter-governmental mechanism, is the principal policy-making and appraisal organ on matters relating to the follow-up of UNCED. The GA would organize a regular review of the implementation of Agenda 21. In fulfilling this task the GA could consider the timing, format and organizational aspects of such a review. In particular, the GA could consider holding a special session no later than 1997 for the purposes of overall review and appraisal of Agenda 21, with adequate preparations at a high level.

#### B. Economic and Social Council

10. The Economic and Social Council, in the context of its Charter role vis-a-vis the General Assembly and the ongoing restructuring and revitalization of the United Nations in the economic, social and related fields, would assist the General Assembly through overseeing system-wide coordination, ~~guidance~~ ~~and~~ ~~overview~~ on the implementation of Agenda 21. In

*overseeing*

*and making  
recommendations*

addition, the Council would undertake the task of directing system-wide coordination and integration of environmental and developmental aspects in the United Nations' policies and programmes and make appropriate recommendations to the General Assembly, ~~(Member States)~~ and ~~(specialized agencies concerned.)~~ <sup>and member States</sup> Appropriate steps should be taken to obtain regular reports from specialized agencies on their plans and programmes related to the implementation of Agenda 21, pursuant to Article 64 of the Charter of the United Nations.

#### INTERGOVERNMENTAL MECHANISMS

11. ~~(Agreed)~~ In order to enhance and rationalize the intergovernmental decision-making capacity for integration of environment and development issues and to ensure effective follow up to UNCED and the implementation of Agenda 21, provision shall be made within the framework of the General Assembly and the ECOSOC. This should provide for active involvement from organs, programmes and organizations of the UN system, Governments and non-governmental organizations including industry, business and scientific communities. It could take the form of either:

- <sup>Commission</sup> a high-level Sustainable Development Commission as the main subsidiary organ of the General Assembly and the ECOSOC for the integration of environment and development issues that will report directly to the General Assembly on matters of substance and through ECOSOC to the General Assembly on matters related to coordination. It would consist of States elected as members of this Commission;

or

- The full use of a revitalized ECOSOC, in accordance with GA resolution 45/264, with a recommendation for either the establishment of a subsidiary mechanism such as, in particular, a third sessional committee, or the full utilization of its new high level and coordination segments.

On the basis of the conclusions of UNCED, the 47th UNGA should determine specific modalities for the work and other organizational aspects of institutional arrangements agreed at the Conference, in conjunction with a review of the complementarity between the role of ECOSOC and the GA in accordance with GA resolution 45/264. In this respect, the Secretary-General is requested to prepare a report with appropriate recommendations taking into account institutional objectives and functions decided by UNCED.

## INTERGOVERNMENTAL FUNCTIONS

12. The intergovernmental functions to be undertaken within the framework of the UNGA and the ECOSOC and any other intergovernmental mechanism that may be established are:

- (a) (Agreed) To monitor progress in the implementation of Agenda 21 and activities related to the integration of environmental and developmental goals throughout the United Nations system through analysis and evaluation of reports from all relevant organs, organizations, programmes and institutions of the United Nations system dealing with various issues of environment and development, including those related to finance.
- (b) (Agreed) To consider reports [that may be periodically provided by Governments regarding the implementation of Agenda 21 including information on activities they undertake and problems they face such as on financial resources and technology transfer.]
- (c) (Agreed) To review the progress in the implementation of the commitments contained in Agenda 21, including those related to provision of financial resources and transfer of technology.
- (d) (Agreed) To receive and analyse relevant input from competent non-governmental organizations, including the scientific and the private sector, in the context of the overall implementation of Agenda 21.
- (e) (Agreed) To enhance the dialogue within the framework of the United Nations with non-governmental organizations and the independent sector as well as other entities outside the United Nations system.
- (f) [To consider reports presented by relevant treaty bodies on the implementation of environmental conventions.] [To consider reports on implementation of environmental conventions which the relevant conferences of parties may wish to provide.]
- (g) (Agreed) To provide appropriate recommendations to the General Assembly on the basis of an integrated consideration of the reports and issues related to the implementation of Agenda 21.
- (h) (Agreed) To consider, at an appropriate time, the results of the survey to be conducted expeditiously by the UN Secretary General of all UNCED recommendations for capacity-building programmes, information networks,

task forces and other mechanisms to support the integration of environment and development at regional and sub-regional levels.

13. (Agreed) Within the intergovernmental framework, consideration should be given to allow non-governmental organizations including those related to major groups, particularly women's groups, committed to the implementation of Agenda 21 to have relevant information available to them including information, reports and other data produced within the United Nations system.

#### C. The Secretary-General

14. (Agreed) Strong and effective leadership on the part of the Secretary-General is crucial, since he/she would be the focal point of the institutional arrangements within the United Nations system for the successful follow-up to the Conference and for the implementation of Agenda 21.

#### D. [High Level] Interagency Coordination Mechanism

15. Agenda 21, as the basis for action by the international community to integrate environment and development, should provide the principal framework for coordination of relevant activities within the UN system. To ensure effective monitoring, coordination and supervision of the involvement of the United Nations system in the follow-up to the Conference, there is a need for a [high-level] coordination mechanism under the direct leadership of the Secretary-General.

16. (Agreed) This task should be given to the Administrative Committee on Coordination (ACC) headed by the Secretary-General. ACC would thus provide a vital link and interface between the multilateral financial institutions and other United Nations bodies at the highest administrative level. The Secretary-General should continue to revitalize the functioning of the Committee. All heads of agencies and institutions of the UN system shall be expected to cooperate with the Secretary-General fully in order to make ACC work effectively in fulfilling its crucial role and ensure successful implementation of Agenda 21. The ACC should consider establishing a special task force, subcommittee or sustainable development board, taking into account the experience of DOEM and CIDIE as well as the respective roles of the UNEP and UNDP. Its report should be submitted to the relevant intergovernmental bodies.



### E. High Level Advisory Body

17. Intergovernmental bodies, the SG and the UN system as a whole may also benefit from the expertise of a high level advisory board consisting of eminent persons knowledgeable about environment and development, including relevant sciences, appointed by the Secretary General in their personal capacity. In this regard, the Secretary General should make appropriate recommendations to the 47th session of the General Assembly.

### F. Secretariat Support Structure

18. (Agreed) A highly qualified and competent secretariat support structure within the UN Secretariat, drawing, inter alia, on the expertise gained in the UNCED preparatory process is essential for the follow-up to the Conference and the implementation of Agenda 21. This secretariat support structure should provide support to the work of both intergovernmental and interagency coordination mechanisms. Concrete organizational decisions fall within the competence of the Secretary General as the chief administrative officer of the Organization, who is requested to report on the provisions to be made, covering staffing implications, as soon as practicable, taking into account gender balance as defined in Article 8 of the UN Charter, and the need for the optimum use of existing resources in the context of current and ongoing restructuring of the UN Secretariat.

### G. Organs, programmes, organizations of the United Nations system

19. (Agreed) In the follow-up to the Conference, in particular implementation of Agenda 21, all relevant organs, programmes and organizations of the UN system will have an important role within their respective areas of expertise and mandates in supporting and supplementing national efforts. Coordination and mutual complementarity of their efforts to promote integration of environment and development can be enhanced through countries encouraging to maintain consistent positions in the various governing bodies.

### United Nations Environment Programme

20. (Agreed) In the follow-up to the Conference, there will be a need for an enhanced and strengthened role of UNEP and its Governing Council. The Governing Council should within its mandate

continue to play its role with regard to policy guidance and coordination in the field of the environment, taking into account the development perspective.

21. Priority areas on which UNEP should concentrate include the following:

(a)(Agreed) strengthening its catalytic role in stimulating and promoting environmental activities and considerations throughout the United Nations system;

(b)(Agreed) promoting international cooperation in the field of environment and to recommend, as appropriate, policies to this end;

(c)(Agreed) develop<sup>ing</sup> and promoting the use of techniques such as natural resource accounting and environmental economics;

(d)(Agreed) environmental monitoring and assessment, both through improved participation by the United Nations system agencies in the Earthwatch programme and expanded relations with private scientific and non-governmental research institutes; strengthening and making operational its early warning function

(e)(Agreed) coordination and promotion of relevant scientific research with a view to provide a consolidated basis for decision-making;

(f)(Agreed) dissemination of environmental information and data to governments and to organs, programmes and organizations of the UN system;

(g)(Agreed) raising general awareness and action in the area of environmental protection through collaboration with the general public, non-governmental entities and intergovernmental institutions;

(h) further development of international environmental law, in particular conventions and guidelines, promotion of its implementation, and coordinating functions arising from an increasing number of international legal agreements, inter alia, the functioning of the secretariats of the Conventions, [taking into account the [need] [possibility and desirability] for them to be regrouped preferably at the same location]; *for the most efficient use of resources including possible co-location of secretariats in the future*

(i)(Agreed) further development and promotion of the widest possible use of environmental impact assessments, including activities carried out under the auspices of UN specialized agencies, and in connection with every significant economic development project or activity;

(j)(Agreed) facilitation of information exchange on environmentally sound technologies, including legal aspects, and provision of training;

(k)(Agreed) promotion of sub-regional and regional cooperation and support to relevant initiatives and programmes for environmental protection including playing a major contributing and coordinating role in the regional mechanisms in the field of environment identified for the follow-up to UNCED;

(l)(Agreed) providing <sup>upon request</sup> technical, legal and institutional advice to governments in establishing and enhancing their national legal and institutional frameworks, in particular, in cooperation with UNDP capacity-building efforts;

(m)(Agreed) supporting governments <sup>upon request</sup> and development agencies and organs in the integration of environmental aspects into their development policies and programmes, in particular through provision of environmental, technical and policy advice during programme formulation and implementation;

(n)(Agreed) further developing assessment and assistance in cases of environmental emergencies.

22. (Agreed) In order for UNEP to perform all of these functions, while retaining its role as the principal body within the UN system in the field of environment and taking into account the development aspects of environmental questions, it would require access to greater expertise and provision of adequate financial resources and it would require closer cooperation and collaboration with development and other relevant organs of the UN system. Furthermore, UNEP's regional offices should be strengthened without weakening its Headquarters in Nairobi, and UNEP should take steps to reinforce and intensify its liaison and interaction with UNDP and the World Bank.

#### United Nations Development Programme

23.(Agreed) UNDP, like UNEP, also has a crucial role in the follow-up to the UNCED. Through its network of field offices it would foster the United Nations system's collective thrust in support of the implementation of Agenda 21, at the country, regional, interregional and global levels, drawing on the expertise of the specialized agencies and other UN organizations and bodies involved in operational activities. The role of the Resident Representative/Resident Coordinator of UNDP needs to be strengthened in order to coordinate the field-level activities of the UN operational activities.

24. (Agreed) Its role would include the following:

- (a) (Agreed) acting as the lead agency in organizing UN system efforts towards capacity-building at the local, national and regional levels;
- (b) (Agreed) mobilizing donor resources on behalf of Governments for capacity-building in recipient countries and, where appropriate, through the use of UNDP round-table mechanisms;
- (c) (Agreed) strengthening its own programmes in support of follow-up to UNCED without prejudice to the Fifth Programme Cycle;
- (d) (Agreed) assisting recipient countries upon request in the establishment and strengthening of national coordination mechanisms and networks related to activities for the follow-up of the UNCED;
- (e) (Agreed) assisting recipient countries <sup>upon request</sup> in coordinating the mobilization of domestic financial resources;
- (f) (Agreed) promoting and strengthening the role and involvement of women, youth and other major groups, in recipient countries in the implementation of Agenda 21.

United Nations Conference on Trade and Development

25. (Agreed) UNCTAD should play an important role in the implementation of Agenda 21 as extended at UNCTAD VIII, taking into account the importance of the interrelationships between development, international trade and the environment and in accordance with its mandate in the area of sustainable development.

United Nations Sudano-Sahelian Office

26. (Agreed) The role of UNSO, with added resources that may become available, operating under the umbrella of UNDP and with the support of UNEP, should be strengthened so that this body can assume an appropriate major advisory role and participate effectively in the implementation of Agenda 21 provisions related to combating drought, desertification as well as land resource management. In this context, the experience gained could be used by all other countries affected by drought and desertification,

in particular those in Africa, with special attention to countries most affected or classified as LDCs.

United Nations Specialized Agencies and Related Organizations  
*and other intergovernmental organizations*

27. (Agreed) All UN specialized agencies and related organizations within their respective fields of competence have an important role to play in the implementation of relevant parts of Agenda 21 and other decisions of UNCED. Their governing bodies may consider ways of strengthening and adjusting activities and programmes in line with Agenda 21, in particular, regarding projects for promoting sustainable development. Furthermore, they may consider establishing special arrangements with donors and financial institutions for project implementation that may require additional resources.

H. Regional and sub-regional cooperation and implementation

28. (Agreed) Regional and sub-regional cooperation will be an important part of the Conference outcome. The UN regional economic commissions, regional development banks and regional economic and technical cooperation organizations, within their respective agreed mandates, can contribute to this process by:

- (a) promoting regional and sub-regional capacity-building;
- (b) promoting the integration of environmental concerns in regional and sub-regional development policies;
- (c) promoting regional and sub-regional cooperation, where appropriate, regarding transboundary issues related to sustainable development.

29. (Agreed) Regional economic commissions, as appropriate, should play a leading role in coordinating regional and sub-regional activities by sectoral and other UN bodies and shall assist countries in achieving sustainable development. These commissions, regional programmes within the UN system, as well as other regional organizations should review the need for modification of ongoing activities, as appropriate, in light of Agenda 21.

30. (Agreed) There must be active cooperation and collaboration among the regional commissions and other relevant organizations, regional development banks, non-governmental organizations and other institutions at the regional level. UNEP and UNDP, together with the regional commissions, would have a crucial role to play, especially in providing the necessary assistance, with particular emphasis on building and strengthening the national capacity of Member States.

31.(Agreed) There is a need for closer cooperation between UNEP and UNDP, together with other relevant institution, in the implementation of projects to halt environmental degradation or its impact, and to support training programmes in environmental planning and management for sustainable development at the regional level.

32.(Agreed) Regional intergovernmental technical and economic organizations have an important role to play in helping Governments to take coordinated action in solving environment issues of regional significance.

33.(Agreed) Regional and subregional organizations should play a major role in the implementation of Agenda 21 provisions related to combating drought and desertification. UNEP, UNDP and UNSO should assist and cooperate with those relevant organizations.

34.(Agreed) Cooperation between regional and subregional organizations and relevant organizations of the UN system should be encouraged, where appropriate, in other sectoral areas.

#### I. National implementation

35. (Agreed) States have an important role to play in the follow-up of UNCED and the implementation of Agenda 21. National level efforts should be undertaken by all countries in an integrated manner so that both environment and development concerns can be dealt with in a coherent manner.

36.(Agreed) Policy decisions and activities at the national level, tailored to support and implement Agenda 21 should be supported by the UN system upon request.

37.(Agreed) Furthermore, States could consider the preparation of national reports. In this context, the organs of the United Nations system should, upon request, assist countries, in particular developing countries. Countries could also consider the preparation of national action plans for the implementation of Agenda 21.

38.(Agreed) Existing assistance consortia, consultative groups and round tables should make greater efforts to integrate environmental considerations and related development objectives into their development assistance strategies, and consider reorienting and appropriately adjusting their membership and operations to facilitate this process and better support national efforts to integrate environment and development.

39. (Agreed) States may wish to consider setting up a national coordination structure responsible for the follow-up of Agenda

21. Within this structure, which would benefit from the expertise of non-governmental organizations, submissions and other relevant information could be made to the United Nations.

J. Cooperation between United Nations bodies and international financial organizations

40. (Agreed) The success of the follow-up to the Conference is dependent upon an effective link between substantive action and financial support, and this requires close and effective cooperation between United Nations bodies and the multilateral financial organizations. The Secretary-General and heads of United Nations programmes, organizations and the multi-lateral financial organizations have a special responsibility in forging such a cooperation, not only through full participation in the United Nations high-level coordination mechanism (Administrative Committee on Coordination) but also at regional and national levels. In particular, representatives of multilateral financial institutions and mechanisms, as well as IFAD, should be actively associated with deliberations of the intergovernmental structure responsible for the follow up to Agenda 21.

K. Non-governmental organizations

41. (Agreed) Non-governmental organizations and major groups are important partners in the implementation of Agenda 21. Relevant non-governmental organizations, including scientific community, the private sector, women's groups, etc., should be given opportunities to make their contributions and establish appropriate relationships with the United Nations system. Support should be provided for developing countries' NGOs and their self-organized networks.

42. (Agreed) The UN system, including international finance and development agencies, and all intergovernmental organizations and forums should, in consultation with NGOs take measures to:

- (a) design open and effective means to achieve the participation of NGOs, including those related to major groups, in the process established to review and evaluate the implementation of Agenda 21 at all levels and promote their contribution to it;
- (b) take into account the findings of NGOs' review systems and evaluation processes in relevant reports of the UN Secretary General to the UN General Assembly and all pertinent UN agencies and intergovernmental organizations and forums concerning implementation of Agenda 21 in accordance with its review process.

43. (Agreed) Procedures should be established for an expanded role for NGOs, including those related to major groups, with accreditation based on the procedures used in UNCED. Such organizations should have access to reports and other information produced by the UN system. The General Assembly, at an early stage, should examine ways of enhancing the involvement of NGOs within the UN system in relation to the UNCED follow up process.

44. (Agreed) The Conference ~~takes note of~~ other institutional initiatives for the implementation of Agenda 21, such as the proposal to establish a non-governmental Earth Council and the proposal to appoint a guardian for future generations as well as other initiatives by local governments and business sectors.

[L. Legal Matters]





## ROLE OF REGIONAL ORGANIZATIONS AND COOPERATION

### **SUMMARY**

Following one negotiating session, the Agenda 21 Chapter on Regional Organizations and Cooperation was eliminated and its main contents incorporated into the Agenda 21 chapter on International Institutional Arrangements. The result is a section on "Regional and sub-regional cooperation and implementation", seven paragraphs in length, addressing: (i) the promotion of regional and sub-regional capacity building; the integration of environmental concerns in regional and sub-regional development policies; and, regional and sub-regional cooperation regarding transboundary issues related to sustainable development. The emphasis is on the role of UN regional economic commissions, regional economic and technical cooperation organizations, and regional development banks.

### **DOCUMENTATION**

A/CONF.151/PC/WG.III/L.31, revised as per CRP.3/Rev 3 (2 April, 1992) in Working Group 3 on International Institutional Arrangements (replaces PC/100/Add.26).

### **CANADIAN OBJECTIVES**

Our objectives were to broaden the scope of the draft chapter to address regional cooperation beyond the UN system, to provide for the incorporation of non-governmental views into regional processes; and, to ensure that the document addressed regional cooperation in developed as well as developing country regions.

### **PREP COMM DISCUSSION**

Countries were generally supportive of the need to address the role of regional institutions in UNCED follow up, and quickly realized that the paper put forward by UNCED Secretariat did not represent a stand alone topic, but is a subset of discussions on institutions. The paper as tabled placed heavy emphasis on the role of UN regional economic commissions. Canada intervened at the outset with two points - existing regional economic and technical cooperation organizations which have been formed by countries in a region are key players; and, emphasis needs to be placed on the use of regional organizations to address matters of regional significance, not to create another institutional layer for national action. These points were reinforced by the USA and by India who stated that action should be undertaken by institutions at the lowest and most appropriate level.

Several countries, including Canada, USA and Australia, felt that regional cooperation on sustainable development need not necessarily be coordinated by UNDP or UN regional economic commissions, and that there was an important role for regional organizations outside the UN system.

After one negotiating session in Working Group 3, the text was put aside pending discussion of this matter in the Working Group under the topic of institutional arrangements. The topic was then taken up in informal discussions on institutions, under the coordination of Ambassador Razali Ismail of Malaysia. The entire chapter was boiled down to seven paragraphs in the institutions text, which captured much of the main intent of the much longer initial chapter on regional cooperation, and eliminated it as a separate Agenda 21 programme area.

#### OUTCOME AND ASSESSMENT

The result of discussion on this topic is being sent to Rio in the form of Section H. "Regional and sub-regional cooperation and implementation" in the Agenda 21 chapter on "International Institutional Arrangements". This document is the substantially amended PC/WGIII/L.31 document, which was not available by the end of the Prep Comm, except in the form of a conference room paper. The Prep Comm managed to reduce four and a half pages of repetitive text to seven paragraphs of agreed text, capturing the main themes of regional cooperation. No regional programmes nor initiatives are included in the result.

The section addresses several points, laid out in the first paragraph on objectives: (i) the promotion of regional and sub-regional capacity building; (ii) the integration of environmental concerns in regional and sub-regional development policies; (iii) and, regional and sub-regional cooperation regarding transboundary issues related to sustainable development. The emphasis is on the role of UN regional economic commissions, regional economic and technical cooperation organizations, and regional development banks.

The operative paragraphs address:

- the need for UN regional economic commissions to review and modify, as appropriate, their activities in the light of Agenda 21
- the need for active cooperation between the regional economic commissions and UNEP, UNDP, regional development banks and non-governmental organizations, particularly in strengthening capacity of member states
- closer cooperation between UNEP and UNDP in the

implementation of projects to halt environmental degradation at the regional level

- the importance of regional economic and technical cooperation organizations in helping governments take coordinated action in solving environmental issues of regional significance

- the role of UNSO, UNEP and UNDP in combating drought and desertification in the implementation of Agenda 21

- cooperation between regional and sub-regional organizations of the UN system to address other sectoral issues.

Canada was successful in inserting wording on: non-governmental organizations; and, the importance of non-UN regional organizations in taking concerted action on issues of regional significance. The small amount of detail in the final text did not permit the identification nor elaboration of regional cooperation programmes on environment and development.

No further work will be necessary in developing a Canadian position on regional institutional cooperation for Rio.

Report prepared by:

George Greene  
CIDA  
997-6008

Further information:

Martha ter Kuile  
CIDA  
994-3925

Non Paper: ref WATII/L.3  
11/1/92

CRP.3/Rev.3 (As revised on 2 April 1992)

## I. BASIS FOR ACTION

1. (Agreed) The mandate of UNCED emanates from GA resolution 44/228 which, inter alia, affirmed that UNCED should elaborate strategies and measures to halt and reverse the effects of environmental degradation in the context of increased national and international efforts to promote sustainable and environmentally sound development in all countries and that the promotion of economic growth in developing countries is essential to address problems of environmental degradation. The intergovernmental follow-up to the Conference process shall be within the framework of the UN system, with the General Assembly being the supreme policy-making forum that would provide overall ~~political~~ guidance to Governments, UN system and relevant treaty bodies. At the same time, governments, as well as regional economic and technical cooperation organizations, have a responsibility to play an important role in the follow-up to UNCED. Their commitments and actions should be adequately supported by the UN system and multilateral financial institutions. Thus, national and international efforts would mutually benefit from one another.

2. (Agreed) In fulfilling the mandate of the Conference, there is a need for institutional arrangements within the UN system in conformity with, and providing input to the restructuring and revitalization of the UN in the economic, social and related fields, and the overall reform of the United Nations, including ongoing changes in the Secretariat. In the spirit of reform and revitalization of the United Nations system, implementation of Agenda 21 and other conclusions of UNCED shall be based on an action- and result-oriented approach and consistent with the principles of universality, democracy, transparency, cost-effectiveness and accountability.

3. (Agreed) The UN system, with its multisectoral capacity and the extensive experience of a number of specialized agencies in various spheres of international cooperation in the field of environment and development, is uniquely positioned to assist Governments establish more effective patterns of economic and social development with a view to achieving the objectives of Agenda 21 and sustainable development.

4. (Agreed) All agencies of the UN system have a key role to play in the implementation of Agenda 21 within their respective competence. To ensure proper coordination and avoid duplication in the implementation of Agenda 21, there should be an effective division of labour between various parts of the UN system based on their terms of reference and comparative advantages. Member

States, through relevant governing bodies, are in a position to ensure that these tasks are carried out properly. In order to facilitate evaluation of agencies' performance and promote knowledge of their activities, all bodies of the UN system should be required to elaborate and publish reports of their activities on the implementation of Agenda 21 on a regular basis. Serious and continuous reviews of their policies, programmes, budgets and activities will also be required.

5. (Agreed) The continued active and effective participation of non-governmental organizations, the scientific community and the private sector as well as local groups and communities are important in the implementation of Agenda 21

6. (Agreed) The institutional structure envisaged below will be based on agreement on financial resources and mechanisms, technology transfer, the Earth Charter and Agenda 21. In addition, there has to be an effective link between substantive action and financial support, and this requires close and effective cooperation and exchange of information between the UN system and the multilateral financial institutions for the follow-up of Agenda 21 within the institutional arrangement.

## II. OBJECTIVES

7. (Agreed) The overall objective is the integration of environment and development issues at national, sub-regional, regional and international levels, including in the UN system institutional arrangements.

8. (Agreed) Specific objectives shall be:

(a) (Agreed) to ensure and review the implementation of Agenda 21 so as to achieve sustainable development in all countries;

(b) (Agreed) to enhance the role and functioning of the UN system in the field of environment and development. All relevant agencies, organizations and programmes of the UN system should adopt concrete programmes for the implementation of Agenda 21 and also provide policy-guidance for UN activities or advice to governments upon request, within their respective areas of competence;

(c) (Agreed) to strengthen cooperation and coordination on environment and development in the United Nations system;

(d) (Agreed) to encourage interaction and cooperation between the United Nations system and other intergovernmental and non-governmental sub-regional, regional and global institutions and

non-governmental organizations in the field of environment and development;

(e)(Agreed) to strengthen institutional capabilities and arrangements required for the effective implementation, ~~monitoring~~ and review of Agenda 21;

*Follow-up*

(f)(Agreed) to assist in the strengthening and coordination of national, sub-regional and regional capacities and actions in the areas of environment and development;

(g)(Agreed) to establish effective cooperation and exchange of information between the United Nations organs, organizations, programmes and the multilateral financial bodies, within the institutional arrangements for the follow-up of Agenda 21;

(h)(Agreed) to respond to continuing and emerging issues relating to environment and development;

(i)(Agreed) to ensure that any new institutional arrangements would support revitalization, clear division of responsibilities and the avoidance of duplication in the UN system and depend to the maximum extent possible upon existing resources.

### III. INSTITUTIONAL STRUCTURE

#### A. General Assembly

9. (Agreed) The GA, as the highest level inter-governmental mechanism, is the principal policy-making and appraisal organ on matters relating to the follow-up of UNCED. The GA would organize a regular review of the implementation of Agenda 21. In fulfilling this task the GA could consider the timing, format and organizational aspects of such a review. In particular, the GA could consider holding a special session no later than 1997 for the purposes of overall review and appraisal of Agenda 21, with adequate preparations at a high level.

#### B. Economic and Social Council

10. The Economic and Social Council, in the context of its Charter role vis-a-vis the General Assembly and the ongoing restructuring and revitalization of the United Nations in the economic, social and related fields, would assist the General Assembly through overseeing system-wide coordination, ~~guidance, and overview~~ on the implementation of Agenda 21. In

*overseeing* 3

*and making  
recommendations  
in this direction*

addition, the Council would undertake the task of directing system-wide coordination and integration of environmental and developmental aspects in the United Nations' policies and programmes and make appropriate recommendations to the General Assembly, ~~(Member States)~~ and ~~specialized agencies concerned.~~ <sup>and member States</sup> Appropriate steps should be taken to obtain regular reports from specialized agencies on their plans and programmes related to the implementation of Agenda 21, pursuant to Article 64 of the Charter of the United Nations.

#### INTERGOVERNMENTAL MECHANISMS

11. ~~(Agreed)~~ In order to enhance and rationalize the intergovernmental decision-making capacity for integration of environment and development issues and to ensure effective follow up to UNCED and the implementation of Agenda 21, provision shall be made within the framework of the General Assembly and the ECOSOC. This should provide for active involvement from organs, programmes and organizations of the UN system, Governments and non-governmental organizations including industry, business and scientific communities. It could take the form of either:

- a high-level <sup>Commission</sup> Sustainable Development Commission as the main subsidiary organ of the General Assembly and the ECOSOC for the integration of environment and development issues that will report directly to the General Assembly on matters of substance and through ECOSOC to the General Assembly on matters related to coordination. It would consist of States elected as members of this Commission;

or

- The full use of a revitalized ECOSOC, in accordance with GA resolution 45/264, with a recommendation for either the establishment of a subsidiary mechanism such as, in particular, a third sessional committee, or the full utilization of its new high level and coordination segments.

On the basis of the conclusions of UNCED, the 47th UNGA should determine specific modalities for the work and other organizational aspects of institutional arrangements agreed at the Conference, in conjunction with a review of the complementarity between the role of ECOSOC and the GA in accordance with GA resolution 45/264. In this respect, the Secretary-General is requested to prepare a report with appropriate recommendations taking into account institutional objectives and functions decided by UNCED.



## INTERGOVERNMENTAL FUNCTIONS

12. The intergovernmental functions to be undertaken within the framework of the UNGA and the ECOSOC and any other intergovernmental mechanism that may be established are:

- (a) (Agreed) To monitor progress in the implementation of Agenda 21 and activities related to the integration of environmental and developmental goals throughout the United Nations system through analysis and evaluation of reports from all relevant organs, organizations, programmes and institutions of the United Nations system dealing with various issues of environment and development, including those related to finance.
- (b) (Agreed) To consider reports [that may be periodically provided by Governments regarding the implementation of Agenda 21 including information on activities they undertake and problems they face such as on financial resources and technology transfer.
- (c) (Agreed) To review the progress in the implementation of the commitments contained in Agenda 21, including those related to provision of financial resources and transfer of technology.
- (d) (Agreed) To receive and analyse relevant input from competent non-governmental organizations, including the scientific and the private sector, in the context of the overall implementation of Agenda 21.
- (e) (Agreed) To enhance the dialogue within the framework of the United Nations with non-governmental organizations and the independent sector as well as other entities outside the United Nations system.
- (f) [To consider reports presented by relevant treaty bodies on the implementation of environmental conventions.] [To consider reports on implementation of environmental conventions which the relevant conferences of parties may wish to provide.]
- (g) (Agreed) To provide appropriate recommendations to the General Assembly on the basis of an integrated consideration of the reports and issues related to the implementation of Agenda 21.
- (h) (Agreed) To consider, at an appropriate time, the results of the survey to be conducted expeditiously by the UN Secretary General of all UNCED recommendations for capacity-building programmes, information networks,

task forces and other mechanisms to support the integration of environment and development at regional and sub-regional levels.

13.(Agreed) Within the intergovernmental framework, consideration should be given to allow non-governmental organizations including those related to major groups, particularly women's groups, committed to the implementation of Agenda 21 to have relevant information available to them including information, reports and other data produced within the United Nations system.

#### C. The Secretary-General

14.(Agreed) Strong and effective leadership on the part of the Secretary-General is crucial, since he/she would be the focal point of the institutional arrangements within the United Nations system for the successful follow-up to the Conference and for the implementation of Agenda 21.

#### D. [High Level] Interagency Coordination Mechanism

15. Agenda 21, as the basis for action by the international community to integrate environment and development, should provide the principal framework for coordination of relevant activities within the UN system. To ensure effective monitoring, coordination and supervision of the involvement of the United Nations system in the follow-up to the Conference, there is a need for a [high-level] coordination mechanism under the direct leadership of the Secretary-General.

16.(Agreed) This task should be given to the Administrative Committee on Coordination (ACC) headed by the Secretary-General. ACC would thus provide a vital link and interface between the multilateral financial institutions and other United Nations bodies at the highest administrative level. The Secretary-General should continue to revitalize the functioning of the Committee. All heads of agencies and institutions of the UN system shall be expected to cooperate with the Secretary-General fully in order to make ACC work effectively in fulfilling its crucial role and ensure successful implementation of Agenda 21. The ACC should consider establishing a special task force, subcommittee or sustainable development board, taking into account the experience of DOEM and CIDIE as well as the respective roles of the UNEP and UNDP. Its report should be submitted to the relevant intergovernmental bodies.

#### E. High Level Advisory Body

17. Intergovernmental bodies, the SG and the UN system as a whole may also benefit from the expertise of a high level advisory board consisting of eminent persons knowledgeable about environment and development, including relevant sciences, appointed by the Secretary General in their personal capacity. In this regard, the Secretary General should make appropriate recommendations to the 47th session of the General Assembly. ]

#### F. Secretariat Support Structure

18. (Agreed) A highly qualified and competent secretariat support structure within the UN Secretariat, drawing, inter alia, on the expertise gained in the UNCED preparatory process is essential for the follow-up to the Conference and the implementation of Agenda 21. This secretariat support structure should provide support to the work of both intergovernmental and interagency coordination mechanisms. Concrete organizational decisions fall within the competence of the Secretary General as the chief administrative officer of the Organization, who is requested to report on the provisions to be made, covering staffing implications, as soon as practicable, taking into account gender balance as defined in Article 8 of the UN Charter, and the need for the optimum use of existing resources in the context of current and ongoing restructuring of the UN Secretariat.

#### G. Organs, programmes, organizations of the United Nations system

19. (Agreed) In the follow-up to the Conference, in particular implementation of Agenda 21, all relevant organs, programmes and organizations of the UN system will have an important role within their respective areas of expertise and mandates in supporting and supplementing national efforts. Coordination and mutual complementarity of their efforts to promote integration of environment and development can be enhanced through countries encouraging to maintain consistent positions in the various governing bodies.

#### United Nations Environment Programme

20. (Agreed) In the follow-up to the Conference, there will be a need for an enhanced and strengthened role of UNEP and its Governing Council. The Governing Council should within its mandate

continue to play its role with regard to policy guidance and coordination in the field of the environment, taking into account the development perspective.

21. Priority areas on which UNEP should concentrate include the following:

(a) (Agreed) strengthening its catalytic role in stimulating and promoting environmental activities and considerations throughout the United Nations system;

(b) (Agreed) promoting international cooperation in the field of environment and to recommend, as appropriate, policies to this end;

(c) (Agreed) develop<sup>ing</sup> and promoting the use of techniques such as natural resource accounting and environmental economics;

(d) (Agreed) environmental monitoring and assessment, both through improved participation by the United Nations system agencies in the Earthwatch programme and expanded relations with private scientific and non-governmental research institutes; strengthening and making operational its early warning function

(e) (Agreed) coordination and promotion of relevant scientific research with a view to provide a consolidated basis for decision-making;

(f) (Agreed) dissemination of environmental information and data to governments and to organs, programmes and organizations of the UN system;

(g) (Agreed) raising general awareness and action in the area of environmental protection through collaboration with the general public, non-governmental entities and intergovernmental institutions;

(h) further development of international environmental law, in particular conventions and guidelines, promotion of its implementation, and coordinating functions arising from an increasing number of international legal agreements, inter alia, the functioning of the secretariats of the Conventions, [taking into account the [need] [possibility and desirability] for them to be regrouped preferably at the same location]; *for the most efficient use of resources including possible co-location of secretariats in the future*

(i) (Agreed) further development and promotion of the widest possible use of environmental impact assessments, including activities carried out under the auspices of UN specialized agencies, and in connection with every significant economic development project or activity;

(j)(Agreed) facilitation of information exchange on environmentally sound technologies, including legal aspects, and provision of training;

(k)(Agreed) promotion of sub-regional and regional cooperation and support to relevant initiatives and programmes for environmental protection including playing a major contributing and coordinating role in the regional mechanisms in the field of environment identified for the follow-up to UNCED;

(l)(Agreed) providing <sup>upon request</sup> technical, legal and institutional advice to governments in establishing and enhancing their national legal and institutional frameworks, in particular, in cooperation with UNDP capacity-building efforts;

(m)(Agreed) supporting governments <sup>upon request</sup> and development agencies and organs in the integration of environmental aspects into their development policies and programmes, in particular through provision of environmental, technical and policy advice during programme formulation and implementation;

(n)(Agreed) further developing assessment and assistance in cases of environmental emergencies.

22. (Agreed) In order for UNEP to perform all of these functions, while retaining its role as the principal body within the UN system in the field of environment and taking into account the development aspects of environmental questions, it would require access to greater expertise and provision of adequate financial resources and it would require closer cooperation and collaboration with development and other relevant organs of the UN system. Furthermore, UNEP's regional offices should be strengthened without weakening its Headquarters in Nairobi, and UNEP should take steps to reinforce and intensify its liaison and interaction with UNDP and the World Bank.

#### United Nations Development Programme

23. (Agreed) UNDP, like UNEP, also has a crucial role in the follow-up to the UNCED. Through its network of field offices it would foster the United Nations system's collective thrust in support of the implementation of Agenda 21, at the country, regional, interregional and global levels, drawing on the expertise of the specialized agencies and other UN organizations and bodies involved in operational activities. The role of the Resident Representative/Resident Coordinator of UNDP needs to be strengthened in order to coordinate the field-level activities of the UN operational activities.

24. (Agreed) Its role would include the following:

- (a) (Agreed) acting as the lead agency in organizing UN system efforts towards capacity-building at the local, national and regional levels;
- (b) (Agreed) mobilizing donor resources on behalf of Governments for capacity-building in recipient countries and, where appropriate, through the use of UNDP round-table mechanisms;
- (c) (Agreed) strengthening its own programmes in support of follow-up to UNCED without prejudice to the Fifth Programme Cycle;
- (d) (Agreed) assisting recipient countries upon request in the establishment and strengthening of national coordination mechanisms and networks related to activities for the follow-up of the UNCED;
- (e) (Agreed) assisting recipient countries <sup>upon request</sup> in coordinating the mobilization of domestic financial resources;
- (f) (Agreed) promoting and strengthening the role and involvement of women, youth and other major groups, in recipient countries in the implementation of Agenda 21.

United Nations Conference on Trade and Development

25. (Agreed) UNCTAD should play an important role in the implementation of Agenda 21 as extended at UNCTAD VIII, taking into account the importance of the interrelationships between development, international trade and the environment and in accordance with its mandate in the area of sustainable development.

United Nations Sudano-Sahelian Office

26. (Agreed) The role of UNSO, with added resources that may become available, operating under the umbrella of UNDP and with the support of UNEP, should be strengthened so that this body can assume an appropriate major advisory role and participate effectively in the implementation of Agenda 21 provisions related to combating drought, desertification as well as land resource management. In this context, the experience gained could be used by all other countries affected by drought and desertification,

in particular those in Africa, with special attention to countries most affected or classified as LDCs.

United Nations Specialized Agencies and Related Organizations  
*and other intergovernmental organizations*

27. (Agreed) All UN specialized agencies and related organizations within their respective fields of competence have an important role to play in the implementation of relevant parts of Agenda 21 and other decisions of UNCED. Their governing bodies may consider ways of strengthening and adjusting activities and programmes in line with Agenda 21, in particular, regarding projects for promoting sustainable development. Furthermore, they may consider establishing special arrangements with donors and financial institutions for project implementation that may require additional resources.

H. Regional and sub-regional cooperation and implementation

28. (Agreed) Regional and sub-regional cooperation will be an important part of the Conference outcome. The UN regional economic commissions, regional development banks and regional economic and technical cooperation organizations, within their respective agreed mandates, can contribute to this process by:

- (a) promoting regional and sub-regional capacity-building;
- (b) promoting the integration of environmental concerns in regional and sub-regional development policies;
- (c) promoting regional and sub-regional cooperation, where appropriate, regarding transboundary issues related to sustainable development.

29. (Agreed) Regional economic commissions, as appropriate, should play a leading role in coordinating regional and sub-regional activities by sectoral and other UN bodies and shall assist countries in achieving sustainable development. These commissions, regional programmes within the UN system, as well as other regional organizations should review the need for modification of ongoing activities, as appropriate, in light of Agenda 21.

30. (Agreed) There must be active cooperation and collaboration among the regional commissions and other relevant organizations, regional development banks, non-governmental organizations and other institutions at the regional level. UNEP and UNDP, together with the regional commissions, would have a crucial role to play, especially in providing the necessary assistance, with particular emphasis on building and strengthening the national capacity of Member States.

31.(Agreed) There is a need for closer cooperation between UNEP and UNDP, together with other relevant institution, in the implementation of projects to halt environmental degradation or its impact, and to support training programmes in environmental planning and management for sustainable development at the regional level.

32.(Agreed) Regional intergovernmental technical and economic organizations have an important role to play in helping Governments to take coordinated action in solving environment issues of regional significance.

33.(Agreed) Regional and subregional organizations should play a major role in the implementation of Agenda 21 provisions related to combating drought and desertification. UNEP, UNDP and UNSO should assist and cooperate with those relevant organizations.

34.(Agreed) Cooperation between regional and subregional organizations and relevant organizations of the UN system should be encouraged, where appropriate, in other sectoral areas.

#### I. National implementation

35. (Agreed) States have an important role to play in the follow-up of UNCED and the implementation of Agenda 21. National level efforts should be undertaken by all countries in an integrated manner so that both environment and development concerns can be dealt with in a coherent manner.

36.(Agreed) Policy decisions and activities at the national level, tailored to support and implement Agenda 21 should be supported by the UN system upon request.

37.(Agreed) Furthermore, States could consider the preparation of national reports. In this context, the organs of the United Nations system should, upon request, assist countries, in particular developing countries. Countries could also consider the preparation of national action plans for the implementation of Agenda 21.

38.(Agreed) Existing assistance consortia, consultative groups and round tables should make greater efforts to integrate environmental considerations and related development objectives into their development assistance strategies, and consider reorienting and appropriately adjusting their membership and operations to facilitate this process and better support national efforts to integrate environment and development.

39. (Agreed) States may wish to consider setting up a national coordination structure responsible for the follow-up of Agenda



21. Within this structure, which would benefit from the expertise of non-governmental organizations, submissions and other relevant information could be made to the United Nations.

J. Cooperation between United Nations bodies and international financial organizations

40. (Agreed) The success of the follow-up to the Conference is dependent upon an effective link between substantive action and financial support, and this requires close and effective cooperation between United Nations bodies and the multilateral financial organizations. The Secretary-General and heads of United Nations programmes, organizations and the multi-lateral financial organizations have a special responsibility in forging such a cooperation, not only through full participation in the United Nations high-level coordination mechanism (Administrative Committee on Coordination) but also at regional and national levels. In particular, representatives of multilateral financial institutions and mechanisms, as well as IFAD, should be actively associated with deliberations of the intergovernmental structure responsible for the follow up to Agenda 21.

K. Non-governmental organizations

41. (Agreed) Non-governmental organizations and major groups are important partners in the implementation of Agenda 21. Relevant non-governmental organizations, including scientific community, the private sector, women's groups, etc., should be given opportunities to make their contributions and establish appropriate relationships with the United Nations system. Support should be provided for developing countries' NGOs and their self-organized networks.

42. (Agreed) The UN system, including international finance and development agencies, and all intergovernmental organizations and forums should, in consultation with NGOs take measures to:

- (a) design open and effective means to achieve the participation of NGOs, including those related to major groups, in the process established to review and evaluate the implementation of Agenda 21 at all levels and promote their contribution to it;
- (b) take into account the findings of NGOs' review systems and evaluation processes in relevant reports of the UN Secretary General to the UN General Assembly and all pertinent UN agencies and intergovernmental organizations and forums concerning implementation of Agenda 21 in accordance with its review process.

43.(Agreed) Procedures should be established for an expanded role for NGOs, including those related to major groups, with accreditation based on the procedures used in UNCED. Such organizations should have access to reports and other information produced by the UN system. The General Assembly, at an early stage, should examine ways of enhancing the involvement of NGOs within the UN system in relation to the UNCED follow up process.

44.(Agreed) The Conference ~~takes note of~~ other institutional initiatives for the implementation of Agenda 21, such as the proposal to establish a non-governmental Earth Council and the proposal to appoint a guardian for future generations as well as other initiatives by local governments and business sectors.

[L. Legal Matters]



## INTERNATIONAL LEGAL INSTRUMENTS AND MECHANISMS

### **SUMMARY**

This issue in the mind of many countries, including Canada, was a simple, straightforward issue of marginal importance. Negotiations based on the text prepared by the Secretariat prior to the PrepCom would have been simple.

However, the G-77 produced their own version of the document (L.30) and insisted that their document serve as the basis for negotiation. This useless procedural debate, added to the differences that emerged among developed countries on the issues of dispute settlement and the proposal for a convention, complicated and extended unduly the negotiations and made it difficult to arrive at an acceptable text.

Negotiations were carried out on the basis of a text, prepared by the vice-chair of the working group, which was a blend of the original Secretariat text, comments and additions proposed by delegations, and elements of the G-77 text. At the end of the fourth week of PrepCom IV, the negotiated text was left with many important brackets. Fortunately many of these got deleted by the small drafting group which met during the last week of the PrepCom.

The document agreed to during the Plenary session still contains some brackets, some of which may prove difficult to negotiate. Those refers to trade barriers; [compliance] in addition to implementation mechanisms; dispute [prevention] in addition to dispute settlement, technological assistance [on fair and equitable terms], the development of a "safety nuclear convention" and references to the role of the International Court of Justice for dispute settlement.

### **DOCUMENTATION**

A\CONF. 151\PC\WG.III\L.32 Adopted Agenda 21 chapter:  
International Legal Instruments and Mechanisms

A\CONF.151\PC\WGIII\CRP.4 Draft Proposal by the Chairman

### **CANADIAN OBJECTIVES**

- Continue to develop progressive standards in the field of Environment International Law.

- Agree with the establishment of a group of legal experts that would explore ways to improve the efficiency of existing legal instruments in the field of Environmental Law and identify areas where law could be further

developed.

- Explore the possibilities of providing technical and scientific assistance in order to help developing countries to participate more efficiently in the negotiation of new conventions, the revision of existing ones and help them respect their obligations arising for these conventions.

- Avoid guaranteeing specific financial assistance.

#### **PREPCOM DISCUSSION**

The document used as the basis for negotiation was a blend of the original Secretariat paper, including comments\ additions\deletions proposed by delegations during a first reading of the paper and the text drafted by the G-77.

In addition to the North - South splits on issues such as capacity building in the legal field in developing countries and the importance of improved international "compliance" and reporting regimes, considerable differences emerged among developed country delegations over proposals for development of a convention for the protection of the environment (promoted by the Nordic countries) and follow-up in area of dispute prevention (championed by New Zealand). While differences on the latter are for the most resolved, the question of a " nuclear safety convention" remain to be addressed.

#### **OUTCOME AND ASSESSMENT**

Prior to PrepCom IV, this issue was identified as one of less importance for Canada. Canada participated in the general discussions, provided its comments through CANZ on the G-77 text and the vice-chairman's text but (because of conflicting schedule with other working group III agenda items of greater importance) did not participate in the small drafting group discussions on this issue.

The text developed during PrePCom IV goes beyond the original expectations. The document still has significant square brackets, some of which may prove difficult to delete.

The portions of the text which are currently in brackets could be divided into two categories:

- those, such as technical assistance, trade barriers etc. which are related to unresolved issues in other Agenda 21 texts. These brackets will be dealt with in the same manner as they will be in the main texts on technology transfer and

trade.

- those related to compliance mechanism, the development of a convention, the role of the International Court of Justice definitely go beyond the coordinated follow-up legal program of UNEP\ Montivideo as previously envisaged in the Secretariat document and beyond the Canadian expectations. These paragraphs will have to be carefully reviewed by the working group.

However, the likelihood that the proposal on a an eventual convention will outlive this PrepCom is minimal. There are therefore no requirements to raise this issue in the Memorandum to Cabinet and consult on this issue.

Report prepared by:

Louise Cote  
EAITC  
996-2110

Further information:

Christine Cadieux  
EAITC  
996-6399



General Assembly

Distr.  
LIMITED

A/CONF.151/PC/WG.III/L.32  
28 March 1992

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE UNITED  
NATIONS CONFERENCE ON ENVIRONMENT  
AND DEVELOPMENT

Fourth session  
New York, 2 March-3 April 1992  
Working Group III  
Agenda item 2

SURVEY OF EXISTING AGREEMENTS AND INSTRUMENTS, AND ITS  
FOLLOW-UP

Elements for section IV, chapter 8, of Agenda 21:  
Legal instruments and mechanisms

Draft proposal by the Chairman

I. BASIS FOR ACTION

1. The recognition that the following vital aspects of the universal, multilateral and bilateral treaty-making process should be taken into account:

(a) The further development of international law <sup>on</sup> ~~in the field of~~ sustainable development, giving special attention to the delicate balance between environmental and developmental concerns;

(b) The need to clarify and strengthen the relationship between existing international instruments or agreements in the field of environment and relevant social and economic agreements or instruments, taking into account the special needs of developing countries;

(c) At the global level, the essential importance of the participation in and the contribution of all countries, including the developing countries, to treaty making in the field of international law on sustainable development. Many of the existing international legal instruments and agreements in the field of environment have been developed without adequate participation and

contribution of developing countries, and thus may require review in order to reflect the concerns and interests of developing countries and to ensure a balanced governance of such instruments and agreements;

(d) Developing countries should also be provided with technical assistance in their attempts to enhance their national legislative capabilities in the field of environmental law;

(e) Future projects for the progressive development and codification of international law for sustainable development should take into account the ongoing work of the International Law Commission; and

(f) Any negotiations for the progressive development and codification of international law concerning sustainable development should, in general, be of universal application, taking into account special circumstances in the various regions.

*conducted on a universal basis.*

## II. OBJECTIVES

2. The overall objective of the review and development of international environmental law should be to evaluate and to promote the efficacy of that law and to promote the integration of environment and development policies through effective international agreements or instruments taking into account both universal principles and the particular and differentiated needs and concerns of all countries.

3. Specific objectives are:

(a) To identify and address difficulties which prevent some States, in particular developing countries, from participating in or duly implementing international agreements or instruments and, where appropriate, to review and revise them with the purposes of integrating environmental and developmental concerns and laying down a sound basis for the implementation of these agreements or instruments;

(b) To set priorities for future law-making on sustainable development at the global, regional or subregional level, with a view to enhancing the efficacy of international law in this field through, in particular, the integration of environmental and developmental concerns;

(c) To promote and support the effective participation of all countries concerned, in particular developing countries, in the negotiation, implementation, review and governance of international agreements or instruments, including appropriate provision of technical and financial assistance and other available mechanisms for this purpose, as well as the use of differential obligations where appropriate;

(d) To promote, through the gradual development of universally <sup>or</sup> multilaterally negotiated agreements or instruments, international standards



for the protection of the environment that take into account the different situations and capabilities of countries [, thus avoiding the possible use of unilaterally set environmental standards as barriers to trade] [in order to establish a framework for coexistence between environmental measures and international trade rules, and thus aiming at preventing the use of environmental measures for protectionist purposes];

(e) To ensure the effective and appropriate implementation [and compliance], and to facilitate timely review and adjustment of agreements or instruments by the parties concerned taking into account the special needs and concerns of all countries, in particular developing countries;

(f) To improve the effectiveness of institutions, mechanisms and procedures for the administration of agreements and instruments;

(g) To identify and prevent actual or potential conflicts, particularly between environmental and social/economic agreements or instruments, with a view to ensuring that such agreements or instruments are mutually reinforcing. Where conflicts arise they should be appropriately resolved;

(h) To establish and strengthen mechanisms to identify, prevent and settle international disputes in the field of the environment, duly taking into account existing bilateral and multilateral agreements for the settlement of such disputes.

### III. ACTIVITIES

4. Activities and means of implementation should be considered in the light of the above basis for action and objectives, without prejudice to the right of every State to put forward suggestions in this regard, in the General Assembly of the United Nations. These suggestions should be reproduced in a separate compilation on sustainable development, ~~for further consideration by the General Assembly~~.

#### A. Review, assessment and fields of action in international law for sustainable development

5. While ensuring the effective participation of all countries concerned, Parties should at periodic intervals review and assess both the past performance and effectiveness of existing international agreements or instruments as well as the priorities for future law making in the field of ~~environment and development~~. [This may include an examination of the possibility of elaborating general rights and obligations of States, as appropriate, in the field of the environment, as provided by General Assembly resolution 44/228, para. 50 (b).] In certain cases, attention should be given to the possibility of taking into account varying circumstances through

differential obligations or gradual application. As an option for carrying out this task, earlier UNEP practice may be followed whereby legal experts designated by Governments could meet at suitable intervals, to be decided later, with a broader environmental and developmental perspective.

[6. (a) In view of the importance of full compliance with the relevant rules of international law, all appropriate means should be considered to prevent any deliberate large-scale destruction of the environment, which cannot be justified under international law. The General Assembly and its Sixth Committee as well as the <sup>next</sup> International Conference of the Red Cross and the Red Crescent, in particular the ICRC expert meetings, are the appropriate forums to deal with ~~different aspects~~ of this subject.

(b) In view of the vital necessity of continuing to promote the highest level of safe and environmentally sound management of nuclear power worldwide, international cooperation should be strengthened by a step-by-step approach to a nuclear safety convention and its implementation. The relevant work already under way at the International Atomic Energy Agency should be welcomed and it is emphasized that there is a necessity to pass a nuclear safety convention in the framework of IAEA.]

7. <sup>B. Implementation [and compliance] mechanisms</sup> ~~The Parties to international agreements [shall] [should be encouraged~~ <sup>(to) include adequate procedures and mechanisms to promote and verify</sup> ~~to) include adequate procedures and mechanisms to promote and verify~~ compliance. They shall ensure that such mechanisms (including, where appropriate, national reports, joint expert reviews and assessments, complaint and/or fact-finding procedures etc.) are established by or under those agreements. To that effect, States <sup>and procedures</sup> ~~should~~, inter alia:

(a) Establish efficient reporting systems on the implementation of <sup>and</sup> ~~compliance with~~ international legal instruments, taking into account experience in other fields such as human rights and nuclear activities, providing, where appropriate, for public comments on such reports;

(b) Consider appropriate ways in which relevant international bodies, such as UNEP, might contribute towards the further development of such mechanisms.]

C. Effective participation in international law making

8. In all these activities and others that may be pursued in the future, based on the above basis for action and objectives, the effective participation of all countries, in particular developing countries, should be ensured through appropriate provision of technical assistance and/or financial assistance. Developing countries should be given "headstart" support not only in their national efforts to implement international agreements or instruments, but also to participate effectively in the negotiation of new or revised agreements or instruments and in the actual international operation of such agreements or instruments. Support should include assistance in building up expertise in international law particularly in relation to sustainable development, and in assuring access to the necessary reference information and scientific/technical expertise [on fair and equitable terms].

9. In the area of [prevention and] settlement of disputes, States should further study and consider methods to broaden and make more effective the range of techniques available at present, taking into account, among others, relevant experience under existing international agreements or instruments and, where appropriate, their implementing mechanisms such as modalities for dispute [prevention and] settlement. This may include [,inter alia,] mechanisms and [,notification, consultation and fact-finding] regarding situations that might lead to disputes with other States in the field of sustainable development; and consideration of the inclusion in treaties relating to sustainable development, of clauses providing for the effective peaceful settlement of disputes. [Existing institutions, in particular the International Court of Justice, should also play a role in this field.]"

[D. Dispute settlement

9. In the area of prevention and settlement of conflicts, States should further study and consider methods to broaden and make more effective the range of techniques available at present.]

*see at*  
*Dispute prevention and settlement*

[D. Identification, prevention and resolution of disputes]

9. States should broaden the range of techniques available for dispute prevention and settlement, in particular under international agreements or instruments, including fact-finding procedures and non-discriminatory mutual appropriate access to national judicial and administrative remedies. Optimal use should be made of relevant experience under international agreements in other areas, for example, in the context of the General Agreement on Tariffs and Trade, the International Labour Organisation, and the United Nations Commission on Human Rights. Provision for effective dispute resolution mechanisms should be included in all international environmental agreements.

To that effect, States should, inter alia:

(a) Establish procedures and mechanisms for the prevention of disputes by, in particular:

- (i) Utilizing and, if necessary, improving mechanisms and procedures for the exchange of data and information, notification, consultation and fact-finding regarding situations originating on their territory that might lead to disputes with other States concerning the environment;
- (ii) Adopting in appropriate cases effective international instruments providing for fact-finding to clarify and establish the factual issues of the situation on request of a State whose territory is likely to be impaired by transboundary environmental effects of activities or omissions on the territory of other States;
- (iii) Considering such a fact-finding commission within the framework of the United Nations Environment Programme;

(b) Strengthen their international commitments relating to the settlement of environmental disputes. They should, in particular:

- (i) Include in their treaties relating to the environment, clauses providing for the compulsory settlement of disputes arising from the interpretation or application of those treaties;
- (ii) Apply in good faith the settlement procedures that they have agreed on through general, regional or bilateral agreements or otherwise, when such disputes shall, at the request of any party thereof, be submitted to a procedure that entails a binding decision [to binding procedures such as arbitration or judicial settlement];

- (iii) Recognize the right of any State party to a dispute that could not be settled directly by the Parties to resort to means of settlement involving a third party;
- (iv) Consider recognizing the compulsory jurisdiction of the International Court of Justice, either by treaty or by bilateral declaration under Article 36, paragraph 2, of the Statute of the Court for legal disputes considering the environment;
- (c) Provide for Mixed Claims Commissions in appropriate cases in the event of disputes concerning the claims of nationals of one State against another State for compensation of losses or damages suffered by those national or their properties owing to transboundary environmental effects of activities or omissions on the territory of that State.]

-----

## I. BASIS FOR ACTION

In sub-para. 1 (a), "in the field of" should read "on".

In sub-para. 1 (e), "for" should read "on"

In sub-para. 1 (f), "of universal application" should read "conducted on a universal basis"

## II. OBJECTIVES

In para. 3 (d), "universally or" should read "universally and"

In para. 3 (g), "mutually reinforcing" should read "consistent"

Para. 3 (h), should read as follows:

"To study and consider the broadening and strengthening of mechanisms to identify [,prevent] and settle international disputes in the field of sustainable development, duly taking into account existing bilateral and multilateral agreements for the settlement of such disputes."

## III. ACTIVITIES

In para. 4, delete the bracket in the first sentence,

In para. 4, the second sentence should read as follows:

"These suggestions could be reproduced in a separate compilation on sustainable development." (delete the bracket).

In para. 5, first sentence, "in the field of environment and development" should read "on sustainable development."

In para. 5, second sentence, "possibility" should read "feasibility", and "the environment" should read "sustainable development"; delete "para. 50 (b)"; and delete the brackets.

In sub-para. 6 (a), first sentence, "any deliberate" should read "wilfully caused"; and "[in times of war]" should be inserted after "environment".

In sub-para. 6(a), the second sentence should read as follows:

"The General Assembly and its Sixth Committee as well as, in particular, the expert meetings of the International Committee of the Red Cross, are the appropriate fora to deal with this subject."

Before para. 7, the following sub-title should be inserted:

"B. Implementation [and compliance] mechanisms"

In para. 7, delete the first bracket.

In para. 7, the first sentence should read as follows:

"The Parties to international agreements should consider procedures and mechanisms to promote and review implementation [and compliance]."

In para. 7, delete the second sentence.

In para. 7, third sentence, "should" should read "could".

Sub-para. 7 (a) should read as follows:

"Establish efficient and practical reporting systems on the implementation of [and compliance with] international legal instruments;"

In sub-para. 7 (b), delete the last bracket.

In sub-title D., delete the bracket.

Sub-title D. should read as follows:

"Dispute [prevention and] settlement"

Para. 9 should read as follows:

"In the area of [prevention and] settlement of disputes, States should further study and consider methods to broaden and make more effective the range of techniques available at present, taking into account, among others, relevant experience under existing international agreements or instruments and, where appropriate, their implementing mechanisms such as modalities for dispute [prevention and] settlement. This may include [,inter alia,] mechanisms and procedures for the exchange of data and information [,notification, consultation and fact-finding] regarding situations that might lead to disputes with other States in the field of sustainable development; and consideration of the inclusion in treaties relating to sustainable development, of clauses providing for the effective peaceful settlement of disputes. [Existing institutions, in particular the International Court of Justice, should also play a role in this field.]"

Delete the alternative para. 9.

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE UNITED  
NATIONS CONFERENCE ON ENVIRONMENT  
AND DEVELOPMENT  
Fourth Session  
New York, 2 March-2 April 1992  
Working Group III  
Agenda item 2

SURVEY OF EXISTING AGREEMENTS AND INSTRUMENTS,  
AND ITS FOLLOW-UP

Elements for section IV, chapter 8, of Agenda 21;  
Legal instruments and mechanisms

Draft proposal by the Issue Coordinator,  
Ambassador Reynaldo Arcillia,  
for Working Group III

I. BASIS FOR ACTION

1. The recognition that the following vital aspects of universal and multilateral treaty-making or national legislative process should be taken into account:

- a) The further development of international law in the field of sustainable development, giving special attention to the delicate balance between environmental and development concerns;
- b) The need to clarify and strengthen the relationship between existing international instruments or agreements in the field of environment and relevant social and economic agreements or instruments, taking into account the special needs of developing countries;
- c) The essential importance of the participation in and contribution of all countries, in particular the developing countries, to the success of treaty-making in the field of international law on sustainable development. Many of the existing international legal instruments and agreements in the field of environment have been developed without adequate participation and contribution of developing countries, and thus do not fully reflect the concerns and interests of those States, as well as the consequent imbalances in the effective governance of such instruments and agreements;



d) The special needs and concerns of developing countries should be adequately covered in the treaty-making process, and they should be provided with technical assistance in their attempts to enhance their national legislative capabilities in the field of environmental law; and

e) Any negotiations for the codification of international law concerning sustainable development should, in general, be of universal application taking into account special circumstances in the various regions.

## II. OBJECTIVES

3. The overall objective of the review and development of international environmental law should be to promote the integration of environment and development policies through effective international agreements or instruments taking into account both universal principles and the particular and differentiated needs and concerns of all countries.

4. Specific objectives are:

a) To identify and address difficulties which prevent developing countries from participating in or duly implementing international agreements or instruments and, where appropriate, to review them with the end in view of integrating environmental and developmental concerns in order to lay down a sound basis for the implementation of these agreements or instruments;

b) To set priorities for future law-making at the global, regional or sub-regional level, with a view to integrating environmental and developmental concerns;

c) To promote and support the effective participation of all countries in the negotiation, implementation and review of international agreements or instruments, including appropriate provision of technical and financial assistance and other available mechanisms for this purpose, as well as the use of differential obligations where appropriate;

d) To promote, through the gradual development of universally or multilaterally negotiated agreements or instruments, international standards for the protection of the environment that take into account the different situations and capabilities of countries, thus avoiding the possible use of unilaterally set environmental standards as barriers to trade;

e) Taking into account the special needs and concerns

of all countries, in particular developing countries, to ensure the effective and appropriate implementation and compliance, regular assessment and timely review and adjustment of agreements or instruments by the parties concerned;

f) To identify and prevent actual or potential conflicts between environmental and social/economic agreements or instruments with a view to ensuring that such agreements or instruments are mutually reinforcing. Where conflicts arise, they should be appropriately resolved.

### III. ACTIVITIES

5. In general, activities and means of implementation should be considered in the light of the above Basis for Action and Objectives based on international consensus, without prejudice to the right of every State to put forward suggestions in this regard.

#### A. Review and assess international law for sustainable development

6. While ensuring the effective participation of all countries, States could at periodic intervals review and assess both the past performance and effectiveness of existing international agreements or instruments as well as the priorities for future law-making in the field of environment and development. This may include the possibility of elaborating a general convention for the protection of the environment which could introduce procedures for adoption and implementation of international regulations in areas where adequate special provisions and institutions are lacking, such as nuclear safety. In certain cases, attention should be given to the possibility of taking into account varying circumstances through differential obligations or gradual application.

7. As an option for carrying out this task, earlier UNEP practice may be followed whereby legal experts designated by governments could meet at suitable intervals to be decided later with a broader environmental and developmental perspective.

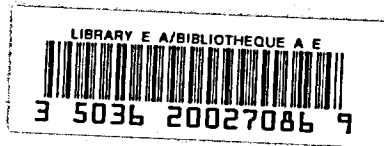
#### B. Promote effective participation in international law-making

8. In all these activities and others that may be pursued in the future, based on the above Basis for Action and Objectives, the effective participation of all countries, in particular developing countries, should be ensured through appropriate provision of technical assistance and/or financial assistance to cover the necessary travel expenses for this purpose. Developing

countries should be given "headstart" support not only in their national efforts to implement international agreements or instruments, but also to participate effectively in the negotiation of new or revised agreements or instruments and in the actual international operation of such agreements or instruments. Support should include assistance in building up expertise in international law particularly in relation to sustainable development, and in assuring access to the necessary reference information and scientific/technical expertise on fair and equitable terms.

C. Improve methods of dispute prevention and settlement

9. In the area of prevention and settlement of conflicts, States should further study and consider methods to broaden and make more effective the range of techniques available at present.



DOCS  
CA1 EA 92U55 ENG  
vol. 1  
United Nations Conference on  
Environment and Development (UNCED)  
fourth session of the Preparatory  
Committee, New York 2 Ma  
43264128