

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

**Third Session of the Preparatory Committee**

**GENEVA**

**12 August to 4 September 1991**

**FINAL REPORTS**

**Vol I**

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on Environment and Development  
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**CANADIAN DELEGATION TO  
THIRD UNCED PREPCOM**

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## UNCED THIRD PREPCOM: OVERVIEW AND EVALUATION

### SUMMARY

At the Third UNCED PrepCom, the UNCED process finally turned the corner from the declaratory phase to the negotiating phase. Delegations have now assumed responsibility for finding solutions to the many complex problems on the UNCED agenda, rather than simply requesting more studies from the Secretariat. The two basic documents that will emerge from Rio next June - the Earth Charter and Agenda 21 - have begun to take shape. Our rules of procedure for both the final PrepCom in New York next March, and for UNCED itself, have been largely hammered out. But with three PrepComs down, and only one more to go before the largest ever gathering of Heads of Government in Rio, there remains an enormous amount of substantive work left to be done on all issues. The texts on sectoral environmental issues are extremely uneven, heavily square bracketed and will need to be overhauled to accommodate the generic structure for Agenda 21 devised at this PrepCom. As for major cross-sectoral issues, actual negotiations began at this PrepCom on only text dealing with transfer of technology. On the critical issue of financial resources, the best we could obtain as an agreed point of departure, was a compilation of views prepared by Canada as chair of the informal negotiations. The greatest challenge of all, however, will be to overcome the widening North-South tensions in this process. We need to avoid structuring the final bargaining in New York as just a trade-off between increased environmental protection for the North, in return from increased development assistance for the South. Our common interest in combining environment with development will need to be re-affirmed through a political dialogue between governments, if we are to conclude the PrepCom process with a successful package for leaders to sign at Rio.

### REPORT

The Canadian delegation came to this PrepCom well prepared to make a substantive contribution to those issues where we believed that UNCED can make a difference. We were particularly involved in negotiating the outcomes dealing with forests, oceans (both living marine resources and marine pollution), the Earth Charter, institutional issues, and financial resources.

In co-operation with our NGOs and a number of other delegations, we helped to develop and co-sponsor specific resolutions that will strengthen the participation of women and indigenous people in the UNCED process. Lastly, through CANZ, we had a significant input into the decisions on the structure of Agenda 21 and the format of the Rio conference. The following paragraphs briefly review the major outcomes of the PrepCom.



## **EARTH CHARTER**

This PrepCom provided the first opportunity for delegations to discuss their views on the Earth Charter, a document envisaged by Maurice Strong as a succinct declaration of universal principles, encapsulating global thinking about environment and development. Since it is now clear that it will be one of the two main documents that leaders will sign at Rio (along with Agenda 21), Earth Charter discussions proved to be a magnet for political attention. Canada, Peru and the USSR kicked off the discussion by tabling their own drafts of an Earth Charter. The Canadian text was widely praised for its brevity and its potential as a basis for future environmental law. However, delegates had many other competing visions, especially LDCs which sought to highlight development principles in the charter. At the end of the PrepCom, a 19 page compendium of views on possible principles for an Earth Charter was compiled. It will be a major challenge at the fourth PrepCom to reduce this list to a politically punchy one or two page document.

## **AGENDA 21**

Agenda 21 also took to life for the first time at this PrepCom. Agenda 21 is intended to be an integrated action plan for governments and international organizations, covering all of the main sectoral issues on the UNCED Agenda. Working Groups I and II spent three weeks negotiating their way through ten separate draft chapters of Agenda 21 prepared by the Secretariat, with variable results. These texts will be extensively revised by the Secretariat before the final PrepCom, to take into account additional suggestions by delegations, and the new structure for Agenda 21 approved at this PrepCom. The CANZ group spent a considerable amount of time reviewing the overall structure of Agenda 21 and proposed that links with the cross-sectoral issues of financing and technology transfer be integrated into each chapter of Agenda 21. The final decision on the structure of Agenda 21 requires that separate chapters on each of the cross-sectoral issues be added as well. Thus, it now appears that Agenda 21 in Rio will be the compendium of action decisions by the PrepCom. Much work will have to be done at the final PrepCom to bring consistency to the structure of Agenda 21.

## **FORESTS**

As in the past two PrepComs, forests were the principal focus of interest in Working Group I, as delegates have agreed that UNCED will be the principal forum for debating global forest issues. Agreement reached at the last PrepCom to work towards a statement of principles on forests by Rio, and defer consideration of a convention until afterwards, reduced previous tensions between G-77 and Western delegations over this issue. Slow but steady progress was made working through the first draft of a text on forest principles. The Canadian draft of forest principles was widely used as a reference point by other delegations. The prospects are good that work will be completed at the fourth PrepCom on a set of principles. However, the Agenda 21 text on forests is yet to be discussed.

## OCEANS

The Oceans was characterized by different coalitions of forces around each of the program areas for oceans proposed for Agenda 21. Canada was principally interested in the sections dealing with living marine resources, where we sought to advance interests of coastal states in protecting straddling stocks; and in marine pollution, where we sought to follow up results of Halifax meeting on land based sources of marine pollution by drafting further guidelines for consideration by UNEP. The Canadian delegation chaired informal contact groups on both issues and drafted these sections of the Agenda 21 text. The most polemical oceans issues proved to be the sections of the text on Antarctica and on whaling. Other sections of the text that were actively debated dealt with management of coastal areas, climate change and sea level rise, and institutional issues. Three weeks of work were almost jettisoned in the final 24 hours as a result of a breakdown over how oceans text would be forwarded to the fourth PrepCom. In the end, agreement was reached that the Chairman of WGII would forward a compilation of different delegations proposals, plus the original Secretariat document.

## INSTITUTIONAL ISSUES

Institutional issues have been regarded as one of the three key cross-sectoral issues in the UNCED process (along with technology transfer and financial resources). Unfortunately, the discussion of institutions at this PrepCom was very preliminary. The Canadian delegation made two contributions to the discussion, by circulating in advance a discussion paper on institutional issues, outlining results of informal consultations in New York; and by producing a matrix of suggestions for institutional reforms that arise from the Secretariat documents on sectoral issues. The Canadian delegation also hosted a lunch to exchange views of delegations on means of strengthening UNEP. The Secretariat will build on Canadian matrix by compiling ideas for institutional reform that are emerging from discussion of sectoral environmental issues in Working Groups I and II. It remains to be seen at the fourth PrepCom what delegations really wish UNCED to accomplish in this area.

## TECHNOLOGY TRANSFER

The technology transfer issue got off to a more substantive start through negotiations on a draft decision proposed by G-77 and China. Among highlights in G-77 draft are: the need for technology capacity building in LDCs; the use of international data-bases to ensure LDCs access to scientific and technological information; purchasing patents with ODA for transfer to LDCs on non-commercial terms; developing safeguards on transfer of untested technologies, promoting long term technological partnerships on a commercial basis; promoting incentives in developed countries to stimulate technology transfer; establishing a global program of technology transfer by UN agencies; easing transfer of patents and period of patent protection. Japan, the US and Canada had difficulties with various parts of this text,

especially the last point on patent protection, but unlike on other issues, Western delegations found they could work with G-77 text. A bracketed version, combined with suggestions from other delegations will be forwarded for further negotiations at the fourth PrepCom.

## **FINANCIAL RESOURCES**

The head of the Canadian delegation, John Bell, was asked by PrepCom Chairman, Tommy Koh, to chair informal negotiations on this very sensitive issue. Discussion on financial resources at this PrepCom tended to focus on funding mechanisms, in particular, whether there should be separate funds for each convention, and the role for a general fund to deal with issues outside scope of conventions. Western and G-77 are divided over whether World Bank's GEF could serve as a general fund; and whether it is valid to separate, for funding purposes, global versus local environmental problems. The issue seems to revolve around appropriate degree of LDC control over governance of a general fund and the kind of environmental issues it would tackle. China and Brazil plus Argentina produced their own discussion papers on these issues, and G-77 tabled a joint draft decision. Australia also tabled a decision providing a framework for discussion. All of these texts will be forwarded to fourth PrepCom, along with a chairman's summary of the discussion, produced by the Canadian delegation. Negotiations on financial resources now scheduled to begin at the outset of the fourth PrepCom, and will probably continue for the duration of the PrepCom. The head of the Canadian delegation will probably be asked again to chair informal negotiations.

## **ORGANIZATION OF THE FOURTH PREPCOM**

At instigation of PrepCom, Chairman Koh, plenary adopted a decision on the organization of the fourth PrepCom. The PrepCom will now be five weeks long, from 2 March to 3 April 1992. The PrepCom will open with negotiations on cross-sectoral issues, starting with transfer of technology and financial resources. Work on the Earth Charter will also be scheduled from the outset of the PrepCom. No general debates will be scheduled, speeches will be discouraged and bulk of the work will be conducted by informal negotiations. Idea of designated period for attendance by Ministers, either at beginning or end of the PrepCom, was dropped.

## **ORGANIZATION OF RIO CONFERENCE**

PrepCom also adopted decision recommending to UNGA 46 a set of rules of procedure for final RIO conference. Decision recommends that heads of government/state attend in the final two days, 11-12 June, to participate in signing ceremonies for the Earth Charter, Agenda 21 - and the climate change and biodiversity conventions, if they are ready for signature. All NGOs accredited to the PrepCom process by the end of the fourth PrepCom would receive accreditation to the final Rio conference. The final conference will

have one main committee. A number of G-77 delegations resisted the recommendation that the main committee could set up subcommittees (to carry out last minute negotiations on outstanding issues), on the grounds that this would overtax small delegations. This provision was approved, but with accompanying decision asking UNGA 46 to review participation of developing countries at UNGA (i.e. Consider further financial assistance to facilitate their participation). All aspects of this decision will have to be confirmed by UNGA 46 this autumn. Many basic questions about program for leaders on last two days still need to be resolved by UNCED Secretariat and Brazilian hosts - including how many documents leaders will sign and whether there will be any form of "round table" to facilitate discussion between them. These decisions will probably not be finalized until the fourth PrepCom.

### **PARTICIPATION OF NGOs**

NGO's accreditation proceeded smoothly at this PrepCom, and the decision taken to accredit all NGOs to the final conference removed one major source of concern.

However, the shift in this PrepCom to informal negotiations between governments revealed limitations on effective participation of NGOs in this process. NGOs responded by more intensive lobbying of government delegations, and in some cases drafting texts for government delegations to use. NGOs remain very concerned that they will be excluded from observing most of the informal negotiations at the fourth PrepCom. Chairman Koh was unable to reach informal consensus among delegations to grant chairs the liberty to admit NGOs into informal negotiations. Uncertainty surrounding this issue will adversely affect delegate relations with NGOs until procedure is resolved at the fourth PrepCom.

The actual degree of participation of NGOs in fourth Conference is also up in the air. Canada developed the idea, which we presented through CANZ, that the final conference should dedicate different days of the conference to different NGO sectors (e.g. business, women, youth, indigenous people) and schedule a time each day for statements in main conference from representatives of designated sector. The purpose of this suggestion was to create a formal link between NGO parallel events and the main conference, which could help focus media attention on both events in a constructive fashion. The idea was well received however, CANZ elected not to push for formal adoption of this proposal until rules of procedure for the final conference are finalized by UNGA 46.

CANZ delegates worked with informal coalition on women delegates, both NGOs and government, to co-sponsor general resolution highlighting the need to consider gender dimensions of environment and development issues, and to follow up conclusions of UNCED Secretariat sponsored seminar held in May entitled "Women and Children First". Canada also followed up on initiative on indigenous people at the last PrepCom by assisting representative from the government of the Northwest Territories convene an informal panel on indigenous use of renewable natural resources. Canada included specific suggestions regarding indigenous peoples interests in our suggestions for Agenda 21 drafts on living marine resources, biodiversity and forests. Canada also co-sponsored a resolution presented

by Norway giving further guidance to UNCED sect to incorporate indigenous interests into future drafts on Agenda 21.

## CONCLUSION

For the most part, the dialogue at the third PrepCom did not revolve around building partnerships, or meshing economics with environment, but around three perceived dichotomies: North vs South, environment vs development, and global vs local problems. Our challenge at the next PrepCom will be to negotiate a package which overcomes these dichotomies, for our common good. If we are to have any chance of success, countries with a major stake in UNCED will have to start a process of political confidence building, through a direct dialogue between capitals prior to the Fourht PrepCom.



**UNCED THIRD SESSION OF THE PREPARATORY COMMITTEE**  
**SUMMARY OF FINAL REPORTS**

**WORKING GROUP I**

**PROTECTION OF THE ATMOSPHERE**

As a result of the deliberations at the Third Session of the PrepCom, the building blocks (programme areas) of the Protection of the Atmosphere component of Agenda 21 exist. The scope of this component has been broadened (or at least the potential to broaden it now exists) beyond that of merely energy and almost exclusively climate change. As it currently stands, however, the programme areas do not examine the atmospheric issues and "solutions" in an integrated approach nor does there appear to be consideration given to the implications of the atmospheric issues and proposed responses on other environment and development issues. A window of opportunity (prior to 1 October 1991) exists to advise the Secretary General as to what Canada would like to see in the protection of the atmosphere programme areas and as to how Canada would like to see the question of the "interconnections" dealt with for these issues.

**FORESTS**

The issue of forests once again proved to be the major focus of attention in UNCED working group I during the third PrepCom, although it was much less polemical than in previous PrepComs. The tone of the debate was aided by the confirmation in the London Summit Declaration of the consensus reached at the end of the second PrepCom, that UNCED would work for now towards an authoritative statement of principles. The possibility remains open that work could begin towards a global forest convention after UNCED. A first reading of a draft statement of principles was completed by the end of this PrepCom. More work will be required at the Fourth Session to remove many brackets and improve the internal structure of the text. The fourth PrepCom will also have to review the action plan for forests that leaders will approve in Rio, as part of Agenda 21.

## DESERTIFICATION AND MANAGEMENT OF LAND RESOURCES

### 1. Management of Land Resources

The debate was divided into the three sections addressed by the Secretariat documentation, namely fragile zones, integrated approaches to planning and management, sustainable agriculture and rural development (SARD). All three subjects were dealt with during the first week of the conference with most delegations agreeing that the Secretariat work on fragile zones was a good beginning but needed much more detailing. Most delegations agreed strongly that the integrated approach to planning and management of land resources using a broad definition of land resources was a valid approach and congratulated the secretariat on this particular element of the documentation. Unfortunately there was little time to discuss SARD and the subject was not revisited during informal discussions. The chairman of Working Group I prepared a summary of the discussion on these items which was eventually accepted by the meeting as presented.

### 2. Desertification

The discussion on desertification was delayed due to the lack of availability of the document in any language but English. It was also delayed somewhat to allow the forestry discussions to finish and thus permit the G-77 delegations to attend both sessions. Eventually 25 different countries and organizations spoke on the issue with a major representation from Africa. Key issues raised in the interventions were the importance of linkages to other issues especially to freshwater and poverty, the regional nature of the issue, the need to mobilize adequate resources to address desertification and the need to mobilize political will.

The discussion was hampered by the poor quality of the document (PC 62) and the lack of proposals for agenda 21. UNEP was supposed to have prepared a report which was to have included recommendations for Agenda 21. This was not completed in time and will be ready in draft form for the International Coordinating Committee on Desertification which meets in September. The discussion closed with a reiteration of how important the issue was. The New York meeting will be the first opportunity Working Group I will have to look at Agenda 21 items on land issues in any detail.

## CONSERVATION OF BIOLOGICAL DIVERSITY

Deliberations at the Third Session focused around three major issues: the relationship between biological diversity and biotechnology and whether or not the two issues should be dealt with as one; the relationship between the development of the biological diversity component of Agenda 21 and the biological diversity negotiations process; and means of implementing the Agenda 21 activities. Other issue that were raised included the sovereign rights of states over



their biological resources and the need to compensate those people who had conserved, will conserve or are developing the biological resources.

Detailed consideration of the Agenda 21 document did not occur at this session but will await the Fourth Session. Countries were asked to submit to the Secretariat prior to 1 October comments, additions, and amendments for this component of Agenda 21.

### **ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY**

Deliberations at this session included discussions on the need to identify means for promoting the transfer of technology and financial resources to support biotechnological developments; whether or not this issue should be considered in combination with biological diversity or separately with developing countries calling for their amalgamation; and the development of biotechnological capabilities in those countries which had the biological resources.

Detailed consideration of the Agenda 21 document did not occur at this session but will await the Fourth Session. Countries were asked to submit to the Secretariat prior to 1 October comments, additions, and amendments for this component of Agenda 21.

## **WORKING GROUP II**

### **HAZARDOUS WASTES**

The main contentious issues were those common to all PrepCom III discussion: the need for full identification of the financial, technological, scientific and human resources required to implement the proposed activities in the management of hazardous waste. A further issue of concern is the continuing call by many developing countries for a ban on all transboundary movement of hazardous wastes. These issues were not resolved at PrepCom III, and remain on the table for PrepCom IV.

The need to keep the recycling option open is recognised in the revised Agenda 21 draft document. The importance of the Basel Convention is also reflected, along with regional agreements such as the Bamako Convention.

### **ENVIRONMENTALLY SOUND MANAGEMENT OF SOLID WASTE AND SEWAGE-RELATED ISSUES**

The discussions and negotiations on this issue were largely non-contentious, and reflected a reasonable balance of interests between developing and industrialised countries. Developing countries emphasised their concerns regarding the implications for health of waste and sewage issues. Recycling and minimising waste production were well addressed. Due to time constraints, the programme area of Extending Waste-Disposal Service Coverage was not addressed in any detail. Rather surprisingly, there was little emphasis on changes of lifestyle and consumption patterns as a necessary component of waste management strategies; this aspect will no doubt be more thoroughly addressed at PrepCom IV.

### **ENVIRONMENTALLY SOUND MANAGEMENT OF TOXIC CHEMICALS**

The main contentious issue, as in other discussions of options for Agenda 21, was the inclusion of the need for provision of new and additional financial resources to developing countries to assist them in implementing actions under the programme areas. Developing countries are concerned about the transboundary movement of toxic products and dangerous wastes, as well as the need to develop the institutional capacity to assess chemical risks and control illegal traffic. The need for universal application of the prior informed consent (PIC) provisions of the London Guidelines is recognized along with the need for international coordination of chemical risk assessment.

### **ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS AND WASTES**

There was a relatively short debate on this issue, with the African countries continuing to stress its importance to them in the sense that all traffic is illegal under the Bamako Convention. This resulted in the inclusion in Annex IV of the decision document covering all waste issues, dealing with Toxic Chemicals, of a paragraph calling upon international organizations to cooperate with developing countries (changed from the original proposal to "provide assistance to developing countries") in strengthening institutional and regulatory capacities to prevent illegal traffic in toxic products and wastes. Also included are two options (square bracketed) for action by national governments in preventing illegal traffic.

## ENVIRONMENTALLY SOUND MANAGEMENT OF RADIOACTIVE WASTE

PrepCom III reached an impasse on the issue of radioactive waste. Developing countries (and some Nordics) called strongly for a move toward converting the IAEA Code of Practice into a legally-binding instrument, and for a legally-binding ban on the dumping of low-level radioactive waste at sea. Others, led by the United States, objected not only to these proposals but to the inclusion of this issue in Agenda 21, saying that the issue is being dealt with in other fora and should not be duplicated in UNCED. No resolution was reached, and the entire issue has been postponed to PrepCom IV.

## OCEANS

Subjects covered in the complex oceans discussion included: the role of the Law of the Sea Convention (UNCLOS) as a main framework for addressing oceans issues; marine pollution (especially from land-based sources); conservation and management of marine living resources, including such issues as driftnet fishing and whaling; coastal zone management; regional development, including capacity-building in developing countries; Antarctica; marine biodiversity; and, institutional mechanisms (including observation systems for monitoring critical uncertainties and climate change).

Following intense negotiations in the first two weeks of PrepCom III and lengthy procedural debates in the last week, delegates decided to ask the UNCED Secretariat to prepare a compilation document, based primarily on two draft proposals: The Chairman's text (L.18), representing a compilation of views under all the subject heading, and a submission by several delegations (L.24), which splits up the marine living resources section of L.18 into separate sections of high seas and national jurisdiction, respectively. The new compilation will identify which paragraphs come from the Secretariat's original document (PC/42/Add.6) and which are proposals by countries (either individually or in groups, given that much of the language in L.18 contains language which is fundamentally unacceptable to some countries (e.g. on Antarctica or on whaling). The general view is that much good work has been done on the oceans text and delegations are prepared to begin negotiations at PrepCom IV.

## FRESHWATER

Freshwater was, by and large, not a contentious issue at PrepCom IV. There was general agreement that the Mar del Plata Action Plan provides a still-valid basis for actions which need to be taken. The main contentious point was that which was common to consideration

of all issues was that developing countries were adamant that unless financial resources, technology transfer and other means of implementation were specifically laid out, they could not approve the proposed freshwater programme.

The revised Freshwater chapter of Agenda 21 emphasises the need to identify mechanisms for implementing, co-ordinating and funding all activities, including at the international level. The need for women and indigenous peoples to participate in policy and decision making at the local, national, regional and international levels is also recognised. The final PrepCom documents invite the Dublin Conference to identify options for implementation mechanisms, so that the final stages of UNCED preparations can benefit from the views of the experts in Dublin.

### WORKING GROUP III

#### LEGAL ISSUES

Most comments focused on amending the Secretariat's paper on "Survey of Existing Agreements and Instruments, and Criteria for Evaluation" to broaden its scope: delegates suggested including references, for example, to development agreements and arms control/disarmament treaties. Other key issues raised were the role of environmental agreements in promoting sustainable development, dispute prevention and settlement and environment and war. The general view seemed to be that UNCED could usefully highlight outstanding legal issues, but that, with the possible exception of dispute prevention and settlement, attention should be focused on agreement on the principles to be included in the Earth Charter.

#### INSTITUTIONS

Following on the discussions at PrepCom II, delegates continued to present ideas for reforming/revitalizing the UN to promote sustainable development objectives, but it remains to be seen if Working Group III can make some fundamental decisions on institutions. Virtually all delegations stressed the need to examine existing bodies, rather than adding major new institutions to the UN system. Several countries suggested stronger coordinating roles for the UN General Assembly (UNGA) and ECOSOC; as well, they called for improved interagency coordination. African countries called for UNEP to broaden its mandate to cover both environment and development; this view was countered by representatives from other regions, who advocated a narrower focus for UNEP. Developing countries spoke against utilizing the Global Environmental Facility (GEF) as a main funding mechanism for sustainable development. Other issues raised included the role of regional

organizations and non-governmental organizations (NGO's) in implementing UNCED's outcomes and dispute prevention and settlement (also raised under Legal Issues).

### EARTH CHARTER

Working Group III began the difficult and laborious task of drafting an "Earth Charter" or "Rio Declaration" at the third session of the PrepCom. The group in fact achieved more than many expected that it would although the really difficult negotiating session will be at the last PrepCom in New York. A G-77 initiative to establish "guidelines" for the drafting of the document was also deferred until New York. There was very broad agreement that the final document must be short, concise, comprehensible, closely linked to Agenda 21 and must build on, and go beyond earlier declarations (Stockholm, Charter for Nature). The one and a half page Canadian draft Earth Charter continues to influence the thinking of many delegations and remains important, if not a crucial, base document.

## IV. PLENARY

### AGENDA 21

One of the significant outcomes of PrepCom III was that, for the first time, delegations began to discuss Maurice Strong's concept of Agenda 21 as the principal output of UNCED. Preliminary negotiations were held on draft chapters of Agenda 21 as prepared by the UNCED Secretariat. At the next PrepCom, delegations will be working on texts that contain a greater amount of their own input. Governments also took the decision at this PrepCom to give Agenda 21 a more operational and development oriented structure. However, a number of fundamental questions remain to be resolved about Agenda 21 before it will be ready for signature in Rio de Janeiro.

### ORGANIZATION OF WORK AND PROVISIONAL RULES OF PROCEDURE OF THE CONFERENCE

This item covers:

- (a) the organization of work for the fourth Preparatory Commission in New York;

- (b) the organization of work for UNCED;
- (c) the provisional agenda and rules of procedure for UNCED.

The fourth PrepCom was addressed as the more urgent matter, particularly given the widespread dissatisfaction with the progress made at this PrepCom session. It was decided that the fourth PrepCom would be five weeks long rather than four, that meetings would be held on Saturday mornings, and that Plenary and Working Group III would begin their meetings in the first week.

As a result of discussions concerning the Rules of Procedure for the actual Conference, the 46th General Assembly may review the question of participation in UNCED of non-governmental entities.

### FINANCIAL RESOURCES

After one formal plenary debate and two informal negotiations chaired by the Head of the Canadian Delegation, John Bell, the third PrepCom plenary approved a procedural decision on financial resources, deferring the real negotiations to the fourth PrepCom. However, along the way, a very substantive exchange of views between developed and developing country delegations was held, which was captured in the Chairman's compilation of views attached to the decision. Key issues raised in the debate were the needs of developing countries for financial resources to cover the full incremental costs of implementing Agenda 21; the funding implications of dividing sustainable development problems into global and local issues; the future role of the Global Environmental Facility; possible new funding mechanisms, including two new proposals from China and from Argentina and Brazil; and the appropriate governance for the funding mechanisms used to channel financial resources to developing countries. While the real options regarding financial resources have yet to be defined, the questions that delegations wish to address in New York are now much clearer. Canada is likely to be asked again to chair these informal negotiations at the next PrepCom.

### SUSTAINABILITY, INTERNATIONAL ECONOMY, INTEGRATED ECONOMIC-ENVIRONMENTAL ACCOUNTING AND ECONOMIC INSTRUMENTS

This issue covers the interface between economy and the environment, and mechanisms for integrating environmental objectives into current trade and financial practices. The international economic system and current international trade rules were questioned from both developmental and environmental perspectives. It is clear that there is considerable pressure for change in the

way the international economy works and in the current framework for international trade, carrying implications for institutions concerned with these matters, particularly the GATT.

### **TRANSFER OF TECHNOLOGY**

The discussion on transfer of technology (TOT) made little progress during PrepCom III. Although this was "first" discussion of the issue, it was crowded into the last three working days of the PrepCom, allowing little real dialogue and thus no opportunity for a real exploration of what might be done in this crucial area. The G-77 in both their statements and draft resolution (A/CONF/151/ PC/L.46) continued to emphasize the need for new mechanisms to transfer technology on "concessional and preferential terms". There was also a direct link to the need for financial resources. OECD countries focused heavily on capacity building - with several variations on the theme developed in the Secretary General's report (PC/53). In the end, due only in part to the constrained time, no substantive draft decision could be agreed and the whole subject was put over to PrepCom IV with a request for Secretariat to produce "draft options" for Agenda 21. Of note is the requirement that each of ten sectors of Agenda 21 also deal with TOT. This has the potential to direct the issue towards specific TOT problems and activities.

### **POVERTY AND POPULATION**

The developing countries considered the issue of poverty to be the key 'development' issue of the conference and were thus concerned that it came so late in the agenda and was allocated only one full day for consideration along with a cluster of other issues which included health, education and population. Interventions spoke mainly to the issue of poverty but many, including developing country delegations, said that population was an essential issue to address in combatting poverty. Other issues which were highlighted were the role of the international financial and trading systems in creating and perpetuating poverty in developing countries, the need for developed countries to reduce consumption and change lifestyles, the role of women and the need to work more with indigenous peoples and local communities. The issues of the international financial and trading systems were raised again and discussed in more detail during the debate on the international economy.

### **ENVIRONMENT AND HEALTH**

The issue of environment and health was dealt with during the PrepCom among a cluster of issues which also included education, poverty and population. Of these four issues poverty was by far the one which was the focus of most interventions. Several developed country

interventions did refer to health, notably the European Community, the United States and Australia. The ILO, ICFTU (International Confederation of Free Trade Unions) and WHO also made strong pleas for the meeting to look more seriously at health and environment. The WHO presented the preliminary findings of its Commission on Health and the Environment and asked that these recommendations be integrated in the Agenda 21 chapter on health. Timing may be difficult for this as the final report of the Commission is due in November while final documentation for the next PrepCom is due by December first. Decision A/CONF.151/PC/L.51 annexes the chairman's brief summary for the discussion of the four items and the summary does devote one section to health.

### HUMAN SETTLEMENTS

The discussion on human settlements was clearly a priority for delegations and one of growing importance for both developing and developed countries alike. The chairman's summary of the discussion is annexed to this report. The plenary adopted a decision making human settlements a separate chapter in Agenda 21 as well as recommending that the issue be integrated into key sector programmes, in particular but not limited to, atmosphere, land, coastal areas and freshwater. Underlying issues with respect to this area centre on the need not to forget rural human settlements, the role of UNCHS (Habitat) in coordinating international activities and the need to link the many activities occurring at the local level such as the World Cities and their Environment Congress which was held in Toronto in August and the third Summit Conference of Major Cities of the World being held in Montreal from October 15 to 17.

### NGO ACTIVITIES

Over 350 NGOs are now accredited to the UNCED preparatory process, according to the previously-established criteria of "competence and relevance", with many more expected by the end of PrepCom IV. The accreditation is in effect for the preparatory process only, and PrepCom III addressed the question of NGO accreditation and access at the Conference itself. Plenary adopted a decision that all NGOs which had been accredited to the preparatory process would be invited to participate "in like manner" in the Conference; this decision, however, is subject to review and debate at the 46th session of UNGA, where the issue could be reopened.

There was a significant increase in the number of developing country NGOs present over PrepCom II. Many had received travel assistance from the donors' fund initiated by Canada at PrepCom II. The Secretariat is encouraging more donor countries to contribute in time for PrepCom IV.



As at PrepCom II, NGOs were very active in the corridors, lobbying delegates on every item on the UNCED agenda. Daily meetings for debriefing and developing strategies were held. While encouraged by access to formal meetings of the Plenary and working groups, NGOs have expressed concerns regarding an inconsistent approach to granting them access to informal consultations and how this will affect their participation at PrepCom IV.

During the intersessional period, NGO interest will continue to be focused on these matters, in particular the outcome of the UNGA debate on participation at UNCED and the impact on NGO accreditation and access to the Conference.



## NON-GOVERNMENTAL PARTICIPATION

### **SUMMARY**

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### **Documentation**

- |                    |   |   |
|--------------------|---|---|
| A/CONF.151/PC/L.40 | - | Decision on Women in Environment and Development  |
| A/CONF.151/PC/L.47 | - | Decision on Youth in Environment and Development  |
| A/CONF.151/PC/L.48 | - | Decision on Indigenous People and Local Communities   |
| A/CONF.151/PC/L.42 | - | Provisional Agenda, Organisation of Work and Provisional Rules of Procedure of the Conference |

## **CANADIAN ACTIVITIES**

Five seats on the Canadian Delegation were shared among eight accredited representatives of NGOs: United Nations Association in Canada, Canadian Environmental Law Association (representing the Canadian Environmental Network), Canadian Council for International Cooperation, Third World Resource Centre, Canadian Labour Congress, Women's Education and Environments Development Group (WEED), Canadian Youth Foundation, and Native Council of Canada. The Canadian delegation continued to find that the inclusion of NGO representatives on our delegation is a valuable means of obtaining NGO input into our approach to the negotiations. One Canadian NGO representative on the official delegation has recommended ways that this arrangement might be made more effective. These recommendations and other arrangements will be reviewed before PrepCom IV.

Briefings with NGOs were held by several country groups (G-77, CANZ, etc.) throughout the PrepCom. In addition, the Working Group coordinators of the Canadian delegation held regular briefings with Canadian NGOs. These were considered useful for purposes of keeping NGOs informed about the views of the countries concerned. In addition, the Canadian delegation hosted several luncheons for small numbers of NGOs and delegates to provide an opportunity for focused dialogue on issues such as institutions, women in environment and development and poverty.

Canada co-sponsored two key decisions prepared by NGOs which were adopted by the Plenary on the final day. The first, which Canadian NGO delegates helped to draft, was a decision prepared by the International Women's Working Group to ensure that the role of women in sustainable development and resource management is fully recognized and referenced in Agenda 21, the Earth Charter and other UNCED outputs. The second decision, proposed by Norway, acknowledged the role of indigenous traditional knowledge and resource management practices in the achievement of sustainable development.

## **ATTENDANCE AND ACCREDITATION**

Some 350 NGOs from around the world representing a variety of sectors (environment, development, women, youth, religious groups, indigenous people, etc.) have now been accredited by the Preparatory Committee subject to the criteria of competence and relevance established previously. Accredited Canadian NGOs include the Assembly of First Nations, Association Québécoise des Organismes de Coopération Internationale (AQOCI), Canadian Participatory Committee for UNCED (CPCU), Canadian Council for International Cooperation, Canadian Labour Congress, Grand Council of the Crees, Native Council of Canada, Inuit Circumpolar Conference, United Nations Association in Canada, Western Canada Wilderness Committee, and the Whistler Foundation for Sustainable Environment.

Approximately 90 developing country NGOs attended this PrepCom (almost three-fold the number at PrepCom II). This was an encouraging response to a call by Chairman Tommy Koh at PrepCom II for better representation from developing country, as well as development-oriented, NGOs. The increased participation was largely due to financial support made available through a special donors' fund initiated at PrepCom II by Canada to cover travel expenses of developing country NGOs. Contributions to the fund to date are limited: Canada has contributed \$100,000, Denmark \$50,000, and Norway has also made funds available through its contributions to UNDP.

NGOs devoted considerable attention to the modalities of NGO accreditation and access at UNCED in Rio. The Secretariat sought the views of the Centre for Our Common Future's International Facilitating Committee (IFC) and Committee of NGOs in Consultative Status with ECOSOC (CONGO) on how to address these issues. Both groups suggested that all NGOs accredited by the Preparatory Committee be invited as observers to the Conference, recognizing that access will depend on available space and views of delegations regarding the role of NGOs. The IFC proposed that NGOs select among themselves the representatives who will be granted access to the official proceedings and make statements on behalf of the various sectors, taking into account the need for North/South and intersectoral balance.

The proposed decision on provisional arrangements and procedures for the Conference (PC/L.42) recommends that all NGOs accredited by the end of PrepCom IV receive invitations to attend UNCED in Rio. During the Plenary debate on this item on the last day, consideration of NGO accreditation became linked to concerns raised by Tunisia, that consideration be given to measures for ensuring "adequate and full participation" of developing countries at the Conference. In the end, Plenary adopted the decision but specifically recommended that the 46th session of UNGA examine the question of participation in the Conference. The possibility exists, therefore, that the issue of NGO participation at UNCED will be reopened at UNGA.

NGO concerns about this issue were fueled at PrepCom III by inconsistent policy among Working Group chairs with respect to NGO access to informal consultations, as distinct from the formal sessions of the PrepCom. This inconsistency is a concern particularly in light of the acknowledgement by Chairman Koh and many delegations that transparency is essential, and that NGOs bring to the proceedings valuable experience and expertise which would otherwise be lacking. At a briefing with NGOs on the final day, Koh stated that there was as yet little he could do to alleviate these concerns since there is still no consensus among delegations regarding NGO access to informal consultations. He indicated that, in an attempt to strengthen communications, he and Secretary General Maurice Strong are considering ways and means of facilitating exchange of views between NGOs and negotiators at PrepCom IV.

While one NGO representative expressed appreciation for Koh's continuing efforts to enhance NGO access to, and participation in the UNCED preparatory process, some have indicated that, in view of the fact that PrepCom IV will be primarily a negotiating session which could further restrict NGO access to meetings, they would review the situation before finalizing plans to attend.

## **NGO PARALLEL EVENTS IN RIO**

The International Facilitating Committee and the Brazilian NGO Forum are collaborating on preparations and logistics for a series of NGO events, known as Global Forum-Rio '92 that will take place during UNCED. This will include exhibits, discussion groups, seminars, etc. and NGOs are being asked to indicate their intent to participate as soon as possible.

In the last week of the PrepCom, the Canadian delegation developed a discussion paper on behalf of the CANZ group which set out a proposal for linking the NGO parallel events at Rio with the official Conference (Attachment I). Known as the "Sector Days" concept, its purpose is to provide during each day of the Conference an opportunity for one independent sector group to highlight its activities in the area of sustainable development. This would provide an opportunity for sectors to "showcase" their activities in the area of sustainable development to government delegations, and through the media to a wide global audience.

The responsibility for implementing a concept such as this would rest jointly with Brazil, the UNCED Secretariat and the NGOs (International Facilitating Committee and the Brazilian NGO Forum). The proposal was well received by both Brazil and the UNCED Secretariat, but little feedback has been received from NGOs as of the end of PrepCom III. The discussion paper was not formally approved as a decision document by the PrepCom; in light of the debate over participation at UNCED (see above report on accreditation) CANZ elected not to seek more formal consideration of the proposal until after the rules of procedure for the Conference are finalised by UNGA 46.

## **PANEL ON TRADITIONAL KNOWLEDGE**

An official from the Department of Renewable Resources, Government of Northwest Territories, organized a panel of speakers from North and South America, Norway and Southeast Asia to describe indigenous experiences and the role of indigenous traditional knowledge and management of renewable resources in the achievement of sustainable development. The purpose of the panel was to target government delegates with a view to encouraging them to incorporate references to these types of knowledge into Agenda 21. This strategy was supported by Canadian indigenous

organizations prior to PrepCom III and was particularly timely in light of Secretary General Strong's remarks that he would like to see more input to the preparatory process from indigenous people, as called for in the PrepCom II resolution on this subject. The presentation was well attended. Plans are under way to build on this at PrepCom IV as a lead-up to indigenous parallel events at Rio.

CANZ  
AUGUST 28, 1991

NGO "SECTOR DAYS" AT UNCED

DISCUSSION PAPER

Your views and opinions on any part of this discussion paper would be appreciated. Please provide comments to Tim Leah, Canadian Delegation; David Payton, New Zealand Delegation; or Brian Babbington, Australian Delegation.

CONCEPT:

In order to establish a clear link between the official conference in Rio and the concurrent events being organized by the IFC and Brazilian NGO Forum, each of the first nine days of the Conference could be devoted to a specific independent sector (e.g. youth, science, women, business, etc.). The purpose of these "Sector Days" would be to provide an opportunity to focus attention of delegates and media on the contributions of specific independent sectors towards sustainable development.

APPROACH:

The International Facilitating Committee (IFC) was established by the Centre for Our Common Future to facilitate input to the UNCED process from a variety of independent sectors including environment and development NGOs, women, youth, indigenous people, business and others. The Brazilian NGO Forum is a network of Brazilian NGOs established to coordinate Brazilian NGO input to that country's preparations for UNCED. The IFC and Brazilian NGO Forum are collaborating on infrastructure and logistics for UNCED in June 1992 so that all sectors will have the opportunity to express their independent views.

The two organizations have been working since May 1991 to create an organizational framework tentatively called the Global Forum - Rio '92 within which a series of separate events (discussion groups and seminars, exhibitions and outdoor events) with their own separate agendas and participants can take place.

The Sector Days initiative could focus attention on the activities of the Global Forum. The elements of the initiative might include:



- a formal recognition by the Conference Chairman, through media release, statement to Plenary, etc. of the contributions made by the sector towards the achievement of sustainable development, including its role in UNCED preparations;

- a visit to the sector's exhibition site (Flamengo Park) by some Heads of Delegation, Conference officials, etc. to focus the attention of delegates, media and others on the sector and its role in UNCED and sustainable development.

- a formal report to the Conference by one or two representative(s) of the sector. The address might include such items as the sector's views on the Earth Charter, sustainable development, Agenda 21, etc.

The Sector Day initiative would provide:

- an opportunity to independent sectors to "showcase" themselves and their sustainable development activities in front of the world press.

- an opportunity to Heads of State to associate themselves with each sector and its goals,

- the media with an opportunity to make the links between the official process and the parallel events at the Conference. This would facilitate individual awareness of, and interest in the Conference and its outcomes, which will be essential to the success of future efforts by governments to implement at the national and local levels, the resolutions adopted at the Conference.

SELECTION OF SECTORS:

Since the number of days available for this initiative will be limited (8-10 maximum), a selection process will be required. Selection criteria should permit equitable North/South representation. Sectors with a common focus or approach to sustainable development could choose to share the same Sector Day.

The decision of which sectors would be selected would rest with the Preparatory Committee, taking into account the views of NGOs accredited by the PrepCom.

Once the selection of sectors has been made, each sector would propose the representative(s) who would address the Conference on its behalf. The final decision on representative(s) would rest with the Chair of the Conference.

Given that environment and development are the major themes of the conference, it may be desirable to focus on the role of sectors other than environment and development, and their efforts to integrate the two themes in the context of their work.

Candidate sectors could include, but not necessarily be limited to, the following:

1. Rural People. Rural people and residents of small communities have a clear role and vested interest in the sustainable management of land resources.

A "Sector day" devoted to these groups could highlight advances in sustainable agricultural practices, for example, low tillage to reduce soil erosion, organic farming methods and integrated pest management.

2. Business and Industry. The Business Council for Sustainable Development (BCSD) and other international business and industry groups such as the International Chamber of Commerce would welcome an opportunity to publicize the role of the marketplace in implementing sustainable development.

A "Sector Day" would provide an opportunity for a formal presentation to Heads of State of the reports under preparation by the BCSD and an occasion to promote the Trade Fair at Sao Paulo.

3. Labour. The transition to sustainable development has profound impacts on workers in terms of retraining requirements and compensation. Workers around the world have a clear interest in ensuring that workplace health and safety issues are fully addressed in the context of protection of the environment outside the workplace.

A "Sector Day" devoted to these issues could focus on the efforts of labour to link sustainable development with workplace health and safety.

4. Indigenous People. As a result of the efforts of indigenous people and some delegations, momentum is building in support of recognizing the contribution that traditional knowledge can make towards sustainable management of resources.

A "Sector Day" devoted to the contributions of indigenous people to sustainable development would be popular with media and Heads of Delegation alike in light of the increase in public interest in indigenous issues in many countries.

5. Religious Groups. The Working Group of Religious Communities on UNCED has submitted a declaration on the Earth Charter to the PrepCom.

A "Sector Day" devoted to the contributions to UNCED from the religious communities could highlight the spiritual and ethical dimensions of sustainable development. Leaders from various faiths could pray for a successful outcome of the Conference and appeal to their constituents, which number in the millions, to embrace the concept of sustainable development in their day to day activities.

6. Urban Dwellers. Many of the world's cities embody all of the problems that result from unsustainable lifestyles and resource management practices. Cities are often viewed as resource sinks which return nothing to natural systems but human waste, garbage and residues from industrial processes.

A "Sector Day" devoted to urban dwellers could focus on the outcomes of several conferences on sustainable human settlements (World Cities and their Environment Conference, Toronto; World Urban Forum, Curitiba; the proposed UN Conference on Human Settlements). In addition it could highlight initiatives of individual urban dwellers to adopt sustainable lifestyles. Examples would include reduction of domestic waste through curbside recycling and backyard composting, increased use of public transit, bicycles to mitigate carbon dioxide emissions and urban afforestation activities.

7. Women. Women have been working to gain proper recognition of their role as resource managers and educators, particularly at the grass roots community and family level.

A "Sector Day" focusing on the role of women in sustainable development would attract considerable interest and would complement other UN initiatives in this area, e.g. International Women's Week.

8. Science and Academia. The importance of the role of science and education in sustainable development (development of knowledge and solutions and enhancement of endogenous capacity) could be highlighted. The ASCEND Conference, organized by the International Council of Scientific Unions (ICSU) will take place in Vienna, November 1991 and will explore the role of science in sustainable development.

9. Youth. Youth, including children has a clearly vested interest in the Conference as they will assume increased responsibility for implementing sustainable in the near term. As a result of the initiative of Canadian youth representatives at the Bergen Conference in March, 1990, the Canadian Youth Working Group on Environment and Development has been given the lead role in organizing world youth to create a global position on sustainable development.

The inclusion of children in this sector would underscore the futuristic dimension of the UNCED process and reinforce the fact that UNCED is a beginning, not an end.

A "Sector Day" devoted to Youth and children would not only focus attention on their contribution to sustainable development, but could serve to remind all people that it is ultimately future generations that will be the recipients of what world leaders accomplish at UNCED.



## General Assembly

Distr.  
LIMITED

A/CONF.151/PC/L.40  
23 August 1991

Original: ENGLISH

PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Third session  
Geneva, 12 August-4 September 1991  
Item 2 (c) of the provisional agenda

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

Canada, Finland, Germany, Ghana\*, Japan, Netherlands\*\*, New Zealand,  
Norway, Sweden, United States of America: draft decision

#### Women in environment and development

The Preparatory Committee recalling General Assembly resolution 44/228 calls inter alia for the development of human resources, particularly in developing countries for the protection and enhancement of the environment, noting that the gender dimension is important in implementing this resolution and its decisions 1/24 (Guidelines for national reports), 1/25 (Environment and Development), 1/28 and 2/6 (Cross-sectoral issues) and taking due account of the recommendations on development in the Nairobi Forward-looking Strategies for the Advancement of Women as they relate to the work of the

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\* On behalf of the States Members of the United Nations that are members of the Group of 77.

\*\* On behalf of the States Members of the United Nations that are members of the European Community.

United Nations Conference on Environment and Development, which state inter alia that national and international emphasis on ecosystem management and the control of environmental degradation should be strengthened and women should be recognized as active and equal participants in this process, requests the Secretary-General to undertake the following activities in collaboration with the relevant organizations and bodies of the United Nations system, Governments, intergovernmental and non-governmental organizations.

(a) To ensure that key elements relating to women's critical economic, social and environmental contributions to sustainable development be addressed at the United Nations Conference on Environment and Development as a distinct cross-cutting issue in addition to being mainstreamed in all the substantive work and documentation, particularly Agenda 21, the Earth Charter and the Conventions.

(b) To establish mechanisms:

- (i) To include a global goal in Agenda 21 promoting the effective participation of women in knowledge generation, decision-making and management at local, national, regional and international levels;
- (ii) To recommend specific actions needed in each of the sectoral and cross-sectoral areas of Agenda 21 to ensure that progress towards sustainable development incorporate measures which will have beneficial impacts on women;
- (iii) To identify human and material resources and infrastructural support needed from international, regional and national agencies, to promote women's participation in UNCED activities at all levels and in each sector.

(c) To ensure that recommendations from relevant meetings undertaken by non-governmental and intergovernmental organizations and Governments such as the UNCED/UNICEF/UNFPA symposium "Women and Children First"; the United Nations Commission on the Status of Women; the NGO World Women's Congress for a Healthy Planet and the UNEP/SWAG coordinated Global Assembly of Women, be made available to the Preparatory Committee and reflected in Agenda 21.

19 August 1991

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## General Assembly

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31 August 1991

Original: ENGLISH

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PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Third session  
Geneva, 12 August-4 September 1991  
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

Ghana\*: draft decision

#### Youth in environment and development

The Preparatory Committee,

Recalling the United Nations General Assembly resolution 44/228 as well  
as decision 1/25 on environment and development and decisions 1/28 and 2/6 on  
cross-sectoral issues.

Recalling also the vital role that youth can and should play in the  
protection of the environment and the promotion of economic and social  
development.

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\* On behalf of the States Members of the United Nations that are members  
of the Group of 77.

1. Decides to include a global goal in Agenda 21, as well as in the Rio de Janeiro declaration on environment and development, the promotion of the effective participation of youth in the field of environment and development;

2. Invites the Secretary-General to present to the Preparatory Committee at its fourth session concrete recommendations and specific actions needed in each of the sectoral and cross-sectoral areas of Agenda 21 to ensure the effective participation of youth towards the integration of environment and development. In this context special attention should be given to the needs of the youth in developing countries.

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## General Assembly

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A/CONF.151/PC/L.48  
2 September 1991

Original: ENGLISH

PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Third session  
Geneva, 12 August-4 September 1991  
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

Australia, Bolivia, Canada, Colombia, Denmark, Ecuador,  
Finland, Iceland, Mexico, New Zealand, Nicaragua,  
Norway, Peru, Philippines, Solomon Islands, Sweden,  
United Republic of Tanzania and Venezuela:  
draft decision

### Indigenous people and local communities

The Preparatory Committee for the United Nations Conference on  
Environment and Development,

Recalling its decision 2/7 of 5 April 1991,

Recognizing the important contribution being made by organizations of  
indigenous people and local communities to the preparations for the  
United Nations Conference on Environment and Development,

1. Decides to incorporate, inter alia, the following elements for the consideration of the Preparatory Committee at its fourth session in the further elaboration of Agenda 21:

(a) Recognizing the traditional knowledge and resource management practices of indigenous people and local communities as contributions to environmentally sound and sustainable development;

(b) Recognizing that traditional and direct dependence on renewable resources and ecosystems, including sustainable subsistence harvesting, continues to be essential to the cultural, social, economic and physical well-being of indigenous people and local communities;

(c) Recognizing the need to protect the habitats of indigenous people and local communities from environmentally unsound development projects and from inappropriate integration processes;

(d) Strengthening the viability and sustainability of traditional management practices in the context of environmentally sound development, including by means of collaboration between Governments and the people and communities concerned;

(e) Supporting capacity building for indigenous people and local communities based on the adaptation and exchange of traditional experience, knowledge and resources management practices within and between regions;

(f) Supporting their development of alternative, environmentally sound means of production, to ensure the improvement of their quality of life so that they can participate in sustainable development;

(g) Mobilizing international technical and financial cooperation for the self-development of these people and communities, as a first step by means of the opportunity provided by the International Year for the World's Indigenous People;

2. Invites the Chairman of the Working Group on Indigenous Populations to contribute to the work of the secretariat, and to participate in the further deliberations on this topic by the Preparatory Committee and the Conference.

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## AGENDA 21

### **SUMMARY**

One of the significant outcomes of PrepCom III was that, for the first time, delegations began to discuss Maurice Strong's concept of Agenda 21 as the principal output of UNCED. Preliminary negotiations were held on draft chapters of Agenda 21 as prepared by the UNCED Secretariat. At the next PrepCom, delegations will be working on texts that contain a greater amount of their own input. Governments also took the decision at this PrepCom to give Agenda 21 a more operational and development oriented structure. However, a number of fundamental questions remain to be resolved about Agenda 21 before it will be ready for signature in Rio de Janeiro.

### **Documentation**

- |                    |  |
|--------------------|--|
| A/CONF.151/PC/42   | Discussion Document, and draft Agenda and ten addenda<br>21 documents on ten sectoral issues |
| A/CONF.151/PC/L.49 | Decision Document on Structure and Organisation of<br>Agenda 21                              |

### **BACKGROUND**

Maurice Strong's concept is that Agenda 21 should be an integrated action plan for governments and international organizations to deal with the specific sectoral issues on the UNCED agenda. The three key features of Agenda 21 are:

- that its objectives will be negotiated, but the means of achieving them will be voluntary
- that it will emphasize the linkages between different kinds of human activities and their impact on sustainable development
- that it will integrate environment and development to the maximum extent possible in its definition of UNCED's objectives and the means of achieving them.

The overview discussion paper prepared for PrepCom III outlined Strong's view of the structure for Agenda 21. It would be comprised of a number of building blocks or chapters - at least one for each of the ten sectoral issues handled by Working Groups I and II. Each chapter would identify a number of programme areas, which would list

the rationale or "basis for action", quantifiable objectives, and specific activities that governments could pursue to achieve them.

The UNCED Secretariat could then cross-reference the objectives and activities agreed upon in Agenda 21, using an electronic data-base, by such categories as: economic sectors affected (e.g. agriculture, industry, transport); primary institutions co-ordinating these activities; public constituencies most directly involved (e.g. women, youth, unions, indigenous people); and by regions or sub-regions, especially in fragile eco-systems (e.g. tropical forests, arid zones, mountainous regions). This methodology could reveal the linkages - both positive and negative - between different activities undertaken by governments and the public to achieve sustainable development.

Finally, to provide a yardstick to evaluate the success or failure of Agenda 21, there would be a set of global goals - such as eradicating poverty, ensuring food security, revitalizing the economies of developing countries, halting destruction of renewable natural resources, protecting the global commons - which would apply to all programme areas. Strong proposed ten such global goals in his overview of Agenda 21 and the Secretariat tabled ten Agenda 21 options papers for Working Groups I and II to consider.

## **PREPCOM DISCUSSION**

Unfortunately, Strong's complex and visionary approach to the structure of Agenda 21 was never adequately explored at this PrepCom. Neither Strong's global goals, nor the linkages between programme areas, were discussed. This was largely due to the failure to schedule a general debate on Agenda 21 at the start of PrepCom. Instead, the delegations arrived with their own very hazy conceptions of what Agenda 21 should look like, and found themselves scheduled to begin negotiating in each Working Group on the basis of the sectoral Agenda 21 drafts provided by the Secretariat.

The result was inconsistency and confusion. On some issues, such as freshwater and waste, delegations proceeded with a line-by-line negotiation on the Secretariat text. On other issues, such as oceans, delegations provided their own competing programme areas for Agenda 21. On yet other issues, such as forests and biodiversity, the Working Group never got around to negotiations on the Agenda 21 draft and delegations were invited to submit their own written suggestions on programme areas to the Secretariat for PrepCom IV.

Nevertheless, delegations have now left the PrepCom seized with the necessity of coming to terms with Agenda 21 and determined to put their own stamp on the programme areas to be negotiated at PrepCom IV.

Despite the confusion in the Working Group debates, a very intensive negotiation on the overall structure of Agenda 21 did, however, emerge in the final week of the Plenary. The debate was triggered by a G77 draft decision and a subsequent CANZ proposal on the subject. The G77 draft was intended to insert a more explicit developmental focus into the chapters of Agenda 21 and to identify the means of implementing its agreed activities, through provision of financial resources, transfer of technology, human resource development and institutional capacity building. Their text also demanded a clear differentiation between developed and developing countries in the expectations for action under Agenda 21. The CANZ proposal was intended to ensure that each of the cross-sectoral issues also has an explicit Agenda 21 chapter. This CANZ objective was advanced in order to facilitate the negotiation of a single Agenda 21 package, and avoid separating the issues of technology transfer and financial resources that are of greatest interest to the G77 from the sectoral issues, such as forests and oceans, that are of greater priority to us. After two intensive negotiating sessions under the chairmanship of Tommy Koh, a text was approved which meets both the G77 and CANZ basic objectives.

## **OUTCOMES AND ASSESSMENT**

The agreed structure of Agenda 21 now requires that each chapter identify three categories of activities: policies and management actions, data gathering, and regional and international co-operation. Each of the cross sectoral issues will now also have their own chapter for Agenda 21. How the cross-sectoral policy issues can be fitted into this framework remains to be seen. Finally, the agreed structure of Agenda 21 provides the Secretariat with a framework for costing the programme areas under Agenda 21, an obligation of the Secretariat, dictated by the UNGA Resolution 44/228.

While we have made considerable progress in defining Agenda 21, major gaps remain. The first concerns priority setting. Agenda 21 is still a bottom-up exercise, whether the drafting is being done by the Secretariat or by delegations in the PrepCom Working Groups. Each chapter is being developed in isolation, and programme areas are proposed based on generalized notions of desirable goals and recommended activities. The lack of priority setting inherent in this approach will become more apparent once the Secretariat attempts to cost out each programme area.

Before the Agenda is finalized, a top-down approach will be needed, in which delegations identify their highest priorities, their minimum quantifiable goals and the critical activities which will provide the greatest amount of leverage, across different programme areas (e.g. reforestation programmes, which can absorb CO<sub>2</sub>, stop soil loss, slow desertification, curb flooding and provide fuel wood).

Second, we will need some equivalent to Strong's global goals, if there is going to be any coherence in the priorities set for each chapter of Agenda 21. The Earth Charter should provide some guidance, but it will consist of universal principles, rather than global goals. It is not clear how or when such goals could be negotiated under the present process. This may prove to be a task left to the end for leaders at UNCED itself.

Third, Agenda 21 will need a review mechanism and some institutional framework. In the past, Strong has spoken of assigning this task to the office of the UN Director-General. The issue did not arise at this PrepCom, but it was flagged in a discussion paper circulated by the EC, which suggested a regular high-level body, meeting at the ministerial level, to give policy guidance for the implementation of Agenda 21. The EC also linked this idea to reviving a UN-wide environmental co-ordination board, to monitor progress within the UN system on implementing Agenda 21. These ideas are very similar to Canadian views on institutional issues and will need to be taken up in Working Group III at PrepCom IV.

Fourth, the PrepCom needs to find an appropriate level of detail for Agenda 21. Delegates in Working Group II found themselves completely bogged down when they tried to negotiate their way line by line through the Secretariat drafts on freshwater and wastes. Given the level of detail in the sectoral drafts, such a task is better left to technical working parties, rather than diplomatic fora such as an UNCED PrepCom. Unfortunately, this would entail ceding more authority to the Secretariat rather than less, contrary to delegations' clear preference at this PrepCom. The alternative is to reduce the number of programme areas, and describe both objectives and activities in a more general and more political fashion.

Finally, it is unclear what degree of political commitment is entailed in the signing of Agenda 21 by leaders in Rio de Janeiro. Will it be simply an indicative list of objectives and activities, or will it be a series of international commitments on which governments will be expected to deliver, domestically and internationally? Most delegations incline towards the former, but in Strong's vision, it is the latter. In the end, individual governments will probably determine their own level of commitment by the actions they take domestically to implement Agenda 21.

CANADIAN INTERVENTION on AGENDA 21  
... Statement by Arthur Campeau, Canada

Mr. Chairman, we have listened with great interest to the presentations by Secretariat staff on its views on Agenda 21 over the last two and during this PrepCom and have also read very carefully the many secretariat documents on this subject. We have stood in awe witnessing the exponential growth in this Agenda. We appreciate, that from the UN Agency point of view, this is the definitive step in the creation of the environment/development work plans for at least the next decade. But we feel it can and must be more than information management and UN Agency work plan creation and ultimately, monitoring.

As we have said before, it is our view and, I am sure, one shared by other delegations, that global environmental and development problems are now so complex and inter-related that governments or UN Agencies alone can not adequately define with sufficient specificity the problems let alone the solutions. In short, all sectors of society must play an important role in defining both the problems and their solutions and be part of Agenda 21. We believe that management systems and work plans that secure effective citizen participation, offer our best collective opportunity for creating the required linkages between environment and development.

We, like Maurice Strong, see Agenda 21 as one of the major outputs of Rio. We have offered individual, and often our collective, Country concerns on each of the sectoral Agenda 21 documents presented at this session. We are very concerned about priority setting. Of particular concern to CANZ is how we are going to set these priorities both now and after June 1992? How will the priority setting mechanisms established within the context of UNCED relate to the priority setting mechanisms of other UN sanctioned fora or Agencies? What mechanisms will we be able to use to resolve difference of views? We believe that the Secretariat should look into these questions and offer some views for consideration at Prepcom IV.

Agenda 21 must be acknowledged as an opportunity for each sector of society to undertake a holistic introspection of itself, its goals, its aspirations and most importantly its responsibilities and an opportunity to spell out the remediation measures it will pursue. If we can agree to do this, we will clearly be on the road to creating the new social contract for a secure world for future generations.

CANZ fully supports the concept of Agenda 21 but is concerned that the Agenda 21 up to now is being created solely by a "bottom up" approach. This approach will undoubtedly produce, in fact, has produced, a very comprehensive list of what needs to be done....



perhaps too exhaustive a list to put before Ministers and Heads of Governments.

Now is the time for reflection and some "top down" guidance regarding Agenda 21. To the best of our knowledge, little consideration has been given to concerns such as the cost, and to some degree, institutional implications of addressing all of these actions.

CANZ is of the view that it is time now to change our perspective from one of observing the trees, to one of examining the forest. Metaphorically speaking, the time has come to precisely audit the the Agenda 21 books, that is, review both expected debits and expected credits. The best way to do this is to look at Agenda 21 from the "top down" and imagine ourselves in RIO. We must consider now what it is we will want to have before us for decision taking on Agenda 21 at RIO. When one looks down from the top one always sees the bottom so I am not suggesting that we disregard the tremendous ammount of work already made from the bottom up, but rather we commence motion on both ends.

Mr. Chairman, in the way of top down guidance CANZ would like to offer the following observations on the creation of Agenda 21. There appears to be a clear need:

- 1) To begin discussions with a view to establishing priorities both within each of the ten issues as set out in PC/42/Add 1-10 and, after that, between these issues.
- 2) To give each issue group, and perhaps even sector groups, a framework for including in Agenda 21 options, responsibility and accountability for delivering the expected products and achievements in the specified time period.
- 3) To identify the higher priority items and the costs associated with the higher priority items;
- 4) To examine each of the priority items with regard to what is needed in the way of institutional adjustment to deliver;
- 5) To define what it is we realistically expect Heads of Governments to agree to (vis-a-vis Agenda 21) at RIO.
- 6) To define precisely the cost implications (as a function of time) and the time frame for delivering the expected outputs.
- 7) To create a Chart which places clearly on one page what outputs, or cluster of outputs, are expected by what dates. This may require re-packaging Agenda 21 in prioritized clusters;

- 8) We need to focus on whether we hope to encourage Governments to develop their own Agenda 21 in time for RIO and the ways and means all of the various Agenda 21s can be made to be dynamic (perhaps there is a need to consider and set in place in RIO a mechanism for periodic review;
- 9) Similarly, we have to decide where business/industry, NGO and other independent sector groups that intend to produce their own Agenda 21 will fit into the RIO process.

Mr. Chairman, the CANZ Group is of the view that we must remain realistic as to what it is we expect Heads of Government to buy onto at RIO. We are hopeful that negotiations on Agenda 21 (by this I mean the determination of what Agenda 21 items governments are prepared to support and fund over what period of time) can begin at PrepCom IV. We realize that Agenda 21 is but one of the areas for which financial commitments from Governments will be sought at UNCED. It is therefore imperative that we begin this Agenda 21 focusing exercise as soon as possible so we can get on with the negotiations.

Mr. Chairman, I hope that these observations will assist the Secretariat in delineating our collective will regarding Agenda 21.

Thank you Mr. Chairman



General Assembly

*Adopted!*

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PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Third session  
Geneva, 12 August - 4 September 1991  
Agenda item 2 (a)

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

ACTIVITIES OF THE CONFERENCE SECRETARIAT

Draft decision proposed by the Chairman on the basis of  
informal consultations held on A/CONF.151/PC/L.39/Rev.1

Structure and organization of Agenda 21

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\* Re-issued for technical reasons.

The Preparatory Committee of the United Nations Conference on Environment and Development, notes with appreciation the proposals of the Secretary-General of the Conference <sup>1/</sup> and decides:

1. That Agenda 21 shall be a wide-ranging instrument containing objectives, activities and means of implementation for specific action proposals;

2. To request the Secretary-General of the Conference to integrate fully development considerations and needs and realities, in particular of the developing countries, in all Agenda 21 programme documents, taking into account the close relationship between development and the environment. In accordance with its decision 1/25, this should include, where appropriate, at least the following:

(a) Poverty, economic growth and environment;

(b) Demographic pressures and unsustainable consumption patterns and environment;

(c) International trade and environment;

(d) Structural adjustment and environment;

(e) Commodities and environment;

(f) External indebtedness, resource flows and environment;

(g) Large industrial enterprises, including transnational corporations; business practices and environment;

3. That Agenda 21, and each of its programme documents, to be adopted at the Conference in 1992, should fully take into account the following elements:

(a) Identification of ways and means to provide new and additional financial resources, particularly to developing countries, in accordance with paragraph 15 (j) of General Assembly resolution 44/228;

(b) Action-oriented proposals for effective modalities for favourable access to and transfer of environmentally sound technology, in particular, to developing countries including on concessional and preferential terms as well as for the development of the endogenous capacities of developing countries;

(c) Differentiation of actions to be taken by developed countries and those to be taken by developing countries, keeping in mind that the

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1/ A/CONF/151/PC/42.

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 capabilities and responsibilities;

(d) Identification of responsibilities for actions to be performed by international and regional organizations;

(e) Full recognition of the specificities and realities of the developing countries including their social, economic and developmental needs;

4. That the structure of Agenda 21 be:

[Earth Charter/Rio de Janeiro Declaration - separable]

[Overview of goals and implementation mechanisms]

#### A. Sectoral issues

Each sectoral issue/programme area, as defined by and considered under the Preparatory Committee's agenda, will be a separate chapter and should as far as practicable follow the following pattern:

(a) Basis for actions;

(b) Objectives;

(c) Activities:

(i) Management-related (for example, policy and planning framework, and national programmes, etc.);

(ii) Data and information;

(iii) International and Regional Cooperation and Coordination;

(d) Means of implementation:

(i) Financing and Cost Evaluation;

(ii) Scientific and Technological Means;

(iii) Human Resource Development;

(iv) Capacity Building of Developing Countries for Preventive and Corrective Action in the Field of Environment Protection and Promotion of Development.

#### B. Cross-sectoral issues

There will be separate chapters on each cross-sectoral issue, as defined by and considered under the Preparatory Committee's agenda.

Where appropriate these chapters will also consolidate, and draw conclusions from relevant sections of the sectoral papers.

The basic elements of each chapter will be:

- (a) Basis for action;
  - (b) Objectives;
  - (c) Activities;
  - (d) Means of implementation.
-



**ORGANIZATION OF PREPCOM IV**  
**AND PROVISIONAL RULES OF PROCEDURE FOR UNCED**

**SUMMARY**

This item covers:

- (a) the organization of work for the Fourth Preparatory Commission in New York;
- (b) the organization of work for UNCED;
- (c) the provisional agenda and rules of procedure for UNCED.

The fourth PrepCom was addressed as the more urgent matter, particularly given the widespread dissatisfaction with the progress made at this Prepcom session. It was decided that the fourth PrepCom would be five weeks long rather than four, that meetings would be held on Saturday mornings, and that Plenary and Working Group Three would begin their meetings in the first week.

As a result of discussions concerning the Rules of Procedure for the actual Conference, the 46th General Assembly may review the question of participation in UNCED of non-governmental entities.

CANZ introduced the Canadian initiative for 'sector days' at UNCED. This idea, to have each day of the Conference dedicated to a specific group, was received positively.

**Documentation**

- |                               |   |   |
|-------------------------------|---|---|
| A/CONF.151/PC/56              | - | Draft provisional agenda, organization of work and draft rules of procedure of the Conference |
| A/CONF.151/PC/95              | - | Provisional Agenda for the fourth session   |
|                               | - | CANZ Intervention   |
| A/CONF.151/PC/L.52            | - | Canadian Discussion Paper on Sector Days  |
|                               | - | Arrangements for future sessions on the Plenary Committee                                     |
| A/CONF.151/PC/L.42 and Corr.1 | - | Structure and organization of Agenda 21: Report of the Secretary General                      |



## PREPCOM DISCUSSION

The primary Canadian objectives were:

- The participation in UNCED of entities outside national delegations, including non-governmental organizations, regional organizations and provincial representatives;
- The Canadian initiative for 'sector days' at UNCED, and our interest in its acceptance by Brazil as host and other delegations, forms an important element in our strategy to ensure broad public participation in UNCED.

The session opened with statements by Maurice Strong, Brazil and the Chair on the organization of the Conference. The Brazilian Government expects official delegates to begin arriving on the last weekend of May for final pre-Conference consultations. The Conference will open on 1 June 92 with the morning of the first day given over to organizational matters. General debate will follow, and continue for three days. A break occurs on 5 June 1992 (the 20th anniversary of the opening of the Stockholm Conference and World Environmental Day). General debate will re-open on 8 June 1992 and be scheduled to end on 10 June 1992 (i.e., 40 hours of general debate). Nothing specific was said about a programme for heads of state/government, although Brazil said it continued to review options for a special event. The Brazilians welcomed the participation of non-governmental and inter-governmental institutions in UNCED.

A fuller briefing on logistics and organization for both official and NGO participants was given later, and notes on that briefing are attached as Annex 1.

The CANZ intervention introduced the Canadian initiative for 'sector days' and a Canadian produced discussion paper was available for distribution. The Brazilian delegation received an advance copy from us to which they responded most positively. The head of the Brazilian delegation advised that it had been sent by facsimile to the Foreign Ministry.

The general debate concentrated on the fourth session of the PrepCom. Most delegations agreed with the view expressed by Colombia that before dealing with the actual Conference, some attention had to be given to the Fourth session of the Prepcom, as the organization of the current session was less than satisfactory. This was echoed by the Chair who issued a paper containing suggestions and questions for the next session.

Colombia made a number of suggestions, including starting Plenary at the same time as the working groups with Plenary holding only informal meetings except at the beginning and end of the session to deal more effectively with Agenda 21 and the

cross-sectoral issues. The Chair's paper also proposed using mainly an informal consultation format with Plenary meetings throughout the session, Working Groups I and II starting in the second week and Working Group III beginning in the first week; the Chair proposes to request General Assembly authority to hold up to six meetings per day. His final suggestions concerned documentation, with Secretariat distribution to occur six weeks before the beginning of the session and restrictions on document submission and processing during the session.

## **OUTCOMES AND ASSESSMENT**

Following formal discussion of this matter, the Chair submitted his proposals, issued as A/CONF.151/PC/L.52 (Arrangements for Future Sessions of the Preparatory Committee), together with PC/95 (Provisional Agenda for the Fourth Session) and A/CONF.151/PC/L.42 and corr.1, (both on Provisional Agenda, Organization of Work and Provisional Rules of Procedure of the Conference) for consideration by Plenary.

### **A. Organization of the Conference (L.42)**

Discussion on paragraph 4(b) of L.42 led the Chair to request six delegations (Brazil, Mauritania, Saudi Arabia, Tunisia, Colombia and Uruguay) to withdraw for private consultations in an effort to resolve the disagreement that arose over the number of subsidiary bodies the Main Committee of the Conference would be permitted to create. The Chair asked them to consider how, contrary to Tunisia's proposal, a decision might be made at the PrepCom to avoid putting it forward for discussion and decision by the General Assembly (UNGA 46). The source of disagreement was the concern put forth that if there were no limits on the establishment of subsidiary organs at UNCED, then they would proliferate beyond the means of many delegations and thereby inhibit the full participation of some developing countries.

The result of those consultations was that L.42 and corr.1 were adopted together with a third (unnumbered) decision requesting UNGA 46 to examine the question of "adequate and full participation of developing countries at UNCED and to examine the question of participation in the Conference and its subsidiary organs". The wording of the decision goes beyond addressing the concerns of the delegations involved to encompass the question of who may take part in UNCED. This may be directed at the participation of non-governmental organizations at UNCED with a view to establishing restrictive measures.

Canada early committed itself to broad participation in UNCED by non-governmental organizations, and these efforts have so far been successful. It will be necessary to follow discussions in UNGA should the question arise.

**B. Organization of the Fourth Prepcom**

The adoption of L.52 reflects the level of frustration with the Third Session of the Prepcom which has led to growing pessimism about the achievements possible for UNCED in light of the slow pace of work and often high level of dissension at this Prepcom. Concerns centre on the work programmes of Working Group III, principally on the construction of the Earth Charter, and the Plenary, i.e., cross-sectoral issues.

These views were evidently shared by the Chair and the Secretariat and the modified organization should contribute to faster progress at the next session.

ANNEX 1

to

FINAL REPORT ON  
ORGANIZATION OF THE CONFERENCEPresentation by Brazil  
Organization of the Conference

Speakers: Carlos Garcia, GTN  
Chip Lindner, Centre for Our Common Future  
Tony Gross, Brazil Forum

Garcia went over logistical arrangements for the official portion of the Conference and for heads of state/government. They require, as soon as possible, the name of one person from each delegation whom they might contact on accommodation. They also would like to schedule the HOG advance teams; they plan to receive them in February and March and will have five teams ready for three day visits. Finally, they plan to make arrangements for scientists/ technical experts from national delegations to meet with Brazilian counterparts and would therefore like the names of any scientists travelling to Rio for the Conference.

Garcia briefly mentioned other official events being organized: a meeting in October 1991 on environmental law in Rio, a meeting, again in Rio, in May 1992 of international editors on the environment, a World Cities Congress (Local Agenda 21) in Curitiba just before the Conference and the Environmental Technology Fair taking place in Sao Paulo at the time of the Conference.

Chip Lindner and Tony Gross spoke about Global Forum, the NGO parallel event taking place during the Conference. There will be "dozens if not hundreds" of events included in Global Forum, all taking place in the Gloria/Flamengo area, with the Gloria Hotel as the HQ, linked to Rio Centro electronically. The objective of Global Forum is to bring together all sectors of society to bring their message to governments. They are hoping that they will be the principal element in a network of NGO Conferences occurring all over the world in support of UNCED.

This document to be revised by Secretariat to accord with change made to Para 4(a), ie, to replace references to "Main Committees" (plural) to "Main Committee" (singular).

UNITED  
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## General Assembly

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PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Third session  
Geneva, 12 August - 4 September 1991  
Agenda item 2 (d)

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

PROVISIONAL AGENDA, ORGANIZATION OF WORK AND PROVISIONAL  
RULES OF PROCEDURE OF THE CONFERENCE

Draft decision proposed by the Chairman

The Preparatory Committee, recalling the provisions of General Assembly resolutions 44/228 of 28 December 1989 and 45/211 of 21 December 1990, and having considered the report of the Secretary-General of the Conference on the draft provisional agenda, organization of work and draft rules of procedure of the Conference (A/CONF.151/PC/56) decides:

A.

Draft provisional agenda

1. That the draft provisional agenda should consist of the following items:
  1. Opening of the Conference.
  2. Election of the President.
  3. Adoption of the rules of procedure.
  4. Adoption of the agenda.
  5. Election of officers other than the President.
  6. Organization of work, including establishment of the Main Committee of the Conference.

7. Credentials of representatives to the Conference:
  - (a) Appointment of the members of the Credentials Committee;
  - (b) Report of the Credentials Committee.
8. General debate.
9. Adoption of agreements on environment and development\*.
10. Signature of Conventions\*\*.
11. Adoption of the report of the Conference.

B.

Pre-session consultations

2. To recommend to the General Assembly that pre-session consultations be held in Rio de Janeiro on 29 and 30 May 1992, in order to reach final agreement and recommendations to be made on all procedural and organizational matters to be dealt with at the Conference on the opening day, including the election of officers, the composition and distribution of posts on the Bureau among the regional groups, the adoption of the rules of procedure, the adoption of the agenda and organization of work, the appointment of members of the Credentials Committee and arrangements for the preparation of the report of the Conference;

C.

Participation in the Conference

3. That further to the provisions of paragraph 7 of its resolution 45/211 in which the General Assembly invited the Secretary-General to issue invitations to all States Members of the United Nations or members of the specialized agencies and observers, in accordance with the established practice of the General Assembly:

(a) To recommend to the General Assembly that all intergovernmental and non-governmental organizations invited to participate in the work of the Preparatory Committee should receive invitations to participate in like manner in the Conference;

(b) That only those intergovernmental and non-governmental organizations invited to participate in the work of the Preparatory Committee by the conclusion of the fourth session of the Preparatory Committee should receive such invitations;

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\* Sub-items will subsequently be listed under item 9 in the light of the decisions of the Preparatory Committee at its fourth session.

\*\* Sub-items will subsequently be listed under item 10 in the light of the results of ongoing negotiations.

(c) To invite the Secretary-General of the Conference to ensure the widest possible dissemination of this decision to all relevant and competent non-governmental and intergovernmental organizations concerned;

(d) To recommend to the General Assembly that relevant United Nations specialized agencies, organizations and programmes be issued invitations by the Secretary-General in accordance with established practice.

D.

Organization of the work of the Conference

4. To recommend that,

(a) The plenary of the Conference establish one Main Committee to consider the substantive item or items before the Conference;

(b) The Main Committee could establish subcommittees or working groups as required

(c) The Conference would have a General Committee composed of the President, the Vice-Presidents, a Rapporteur-General and the Chairman of the Main Committee;

(d) The Conference elect 39 Vice-Presidents, distributed on the following basis:

African States	11
Asian States	9
Eastern European States	4
Latin American and Caribbean States	8
Western European and Other States	7

(e) The Main Committee should complete its work by the end of the first week of the Conference;

(f) The plenary would hold a general debate between 1 and 10 June;

(g) No delegation be allowed to speak more than once in the general debate and that a time-limit of 15 minutes be established for statements by representatives of Governments, 10 minutes for representatives of United Nations specialized agencies, organizations and programmes and intergovernmental organizations and 7 minutes for all other statements;

(h) To recommend that Heads of State or Governments participate in the concluding events of the Conference to take place on 11 and 12 June 1992.

E.

Draft provisional rules of procedure

5. To recommend to the Conference the adoption of the draft provisional rules of procedure set out in Annex I.

Annex

DRAFT PROVISIONAL RULES OF PROCEDURE

I. REPRESENTATION AND CREDENTIALS

Composition of delegations

Rule 1

The delegation of each State participating in the Conference shall consist of a head of delegation and such other representatives, alternate representatives and advisers as may be required.

Alternates and advisers

Rule 2

The head of delegation may designate an alternate representative or an adviser to act as a representative.

Submission of credentials

Rule 3

The credentials of representatives and the names of alternate representatives and advisers shall be submitted to the Secretary-General of the Conference, if possible not less than one week before the date fixed for the opening of the Conference. The credentials shall be issued either by the Head of the State or Government or by the Minister for Foreign Affairs.

Credentials Committee

Rule 4

A Credentials Committee of nine members shall be appointed at the beginning of the Conference. Its composition shall be based on that of the Credentials Committee of the General Assembly of the United Nations at its forty-sixth session. It shall examine the credentials of representatives and report to the Conference without delay

Provisional participation in the Conference

Rule 5

Pending a decision of the Conference upon their credentials, representatives shall be entitled to participate provisionally in the Conference.



## II. OFFICERS

### Elections

#### Rule 6

\* The Conference shall elect from among the representatives of participating States the following officers: a President, (...) Vice-Presidents and a Rapporteur-General, as well as a Chairman for each of the Main Committees established in accordance with rule 46. These officers shall be elected on the basis of ensuring the representative character of the General Committee. The Conference may also elect such other officers as it deems necessary for the performance of its functions.

### General powers of the President

#### Rule 7

1. In addition to exercising the powers conferred upon him elsewhere by these rules, the President shall preside at the plenary meetings of the Conference, declare the opening and closing of each meeting, put questions to the vote and announce decisions. The President shall rule on points of order and, subject to these rules, shall have complete control of the proceedings and over the maintenance of order thereat. The President may propose to the Conference the closure of the list of speakers, a limitation on the time to be allowed to speakers and on the number of times each representative may speak on a question, the adjournment or closure of the debate and the suspension or the adjournment of a meeting.
2. The President, in the exercise of his function, remains under the authority of the Conference.

### Acting President

#### Rule 8

1. If the President is absent from a meeting or any part thereof, he shall designate one of the Vice-Presidents to take his place.
2. A Vice-President acting as President shall have the same powers and duties as the President.

### Replacement of the President

#### Rule 9

If the President is unable to perform his functions, a new President shall be elected.

Voting rights of the President

Rule 10

The President, or a Vice-President acting as President, shall not vote in the Conference, but may appoint another member of his delegation to vote in his place.

III. GENERAL COMMITTEE

Composition

Rule 11

The President, the Vice-Presidents, the Rapporteur-General and the Chairmen of the Main Committees shall constitute the General Committee. The President, or in his absence one of the Vice-Presidents designated by him, shall serve as Chairman of the General Committee. The Chairman of the Credentials Committee and other committees established by the Conference in accordance with rule 48 may participate, without the right to vote, in the General Committee.

Substitute members

Rule 12

If the President or a Vice-President of the Conference is to be absent during a meeting of the General Committee, he may designate a member of his delegation to sit and vote in the Committee. In case of absence, the Chairman of a Main Committee shall designate the Vice-Chairman of that Committee as his substitute. When serving on the General Committee, the Vice-Chairman of a Main Committee shall not have the right to vote if he is of the same delegation as another member of the General Committee.

Functions

Rule 13

The General Committee shall assist the President in the general conduct of the business of the Conference and, subject to the decisions of the Conference, shall ensure the coordination of its work.

IV. SECRETARIAT OF THE CONFERENCE

Duties of the Secretary-General of the Conference

Rule 14

1. The Secretary-General of the Conference shall act in that capacity in all meetings of the Conference and its subsidiary organs.
2. The Secretary-General of the Conference may designate a member of the secretariat to act in his place at these meetings.

3. The Secretary-General of the Conference shall direct the staff required by the Conference.

Duties of the secretariat

Rule 15

The secretariat of the Conference shall, in accordance with these rules:

- (a) Interpret speeches made at meetings;
- (b) Receive, translate, reproduce and circulate the documents of the Conference;
- (c) Publish and circulate the official documents of the Conference;
- (d) Prepare and circulate records of public meetings;
- (e) Make and arrange for the keeping of sound recordings and provide summary records of meetings;
- (f) Arrange for the custody and preservation of the documents of the Conference in the archives of the United Nations;
- (g) Generally perform all other work that the Conference may require.

Statements by the secretariat

Rule 16

The Secretary-General of the United Nations, the Secretary-General of the Conference, or any member of the secretariat designated by either for that purpose, may, at any time, make other oral or written statements concerning any question under consideration.

V. OPENING OF THE CONFERENCE

Temporary President

Rule 17

The Secretary-General of the United Nations or, in his absence, the Secretary-General of the Conference, shall open the first meeting of the Conference and preside until the Conference has elected its President.

Decisions concerning organization

Rule 18

The Conference shall at its first meeting:

- (a) Adopt its rules of procedure;

- (b) Elect its officers and constitute its subsidiary organs;
- (c) Adopt its agenda, the draft of which shall, until such adoption, be the provisional agenda of the Conference;
- (d) Decide on the organization of its work.

## VI. CONDUCT OF BUSINESS

### Quorum

#### Rule 19

The President may declare a meeting open and permit the debate to proceed when at least one third of the representatives of the States participating in the Conference are present. The presence of representatives of a majority of the States so participating shall be required for any decision to be taken.

### Speeches

#### Rule 20

1. No one may address the Conference without having previously obtained the permission of the President. Subject to rules 21, 22 and 25 to 27, the President shall call upon speakers in the order in which they signify their desire to speak. The secretariat shall be in charge of drawing up a list of speakers.
2. Debate shall be confined to the question before the Conference and the President may call a speaker to order if his remarks are not relevant to the subject under discussion.
3. The Conference may limit the time allowed to each speaker and the number of times each participant may speak on any question. Permission to speak on a motion to set such limits shall be accorded only to two representatives in favour of and to two opposing such limits, after which the motion shall be immediately put to the vote. In any event, with the consent of the Conference, the President shall limit each intervention on procedural matters to five minutes. When the debate is limited and a speaker exceeds the allotted time, the President shall call him to order without delay.

### Points of order

#### Rule 21

During the discussion of any matter, a representative may at any time raise a point of order, which shall be immediately decided by the President in accordance with these rules. A representative may appeal against the ruling of the President. The appeal shall be immediately put to the vote, and the President's ruling shall stand unless overruled by a majority of the representatives present and voting. A representative may not, in raising a point of order, speak on the substance of the matter under discussion.

Precedence

Rule 22

The Chairman or Rapporteur of a Main Committee, or the representative of a subcommittee or working group may be accorded precedence for the purpose of explaining the conclusions arrived at by the body concerned.

Closing of the list of speakers

Rule 23

During the course of a debate, the President may announce the list of speakers and, with the consent of the Conference, declare the list closed.

Right of reply

Rule 24

1. Notwithstanding rule 23, the President shall accord the right of reply to a representative of any State participating in the Conference who requests it. Any other representative may be granted the opportunity to make a reply.
2. The statements made under this rule shall normally be made at the end of the last meeting of the day, or at the conclusion of the consideration of the relevant item if that is sooner.
3. The representatives of a State may make no more than two statements under this rule at a given meeting on any item. The first shall be limited to five minutes and the second to three minutes; representatives shall in any event attempt to be as brief as possible.

Adjournment of debate

Rule 25

A representative may at any time move the adjournment of the debate on the question under discussion. In addition to the proposer of the motion, permission to speak on the motion shall be accorded only to two representatives in favour and to two opposing the adjournment, after which the motion shall, subject to rule 28, be immediately put to the vote.

Closure of debate

Rule 26

A representative may at any time move the closure of the debate on the question under discussion, whether or not any other representative has signified his wish to speak. Permission to speak on the motion shall be accorded only to two representatives opposing the closure, after which the motion shall, subject to rule 28, be immediately put to the vote.

Suspension or adjournment of the meeting

Rule 27

Subject to rule 38, a representative may at any time move the suspension or the adjournment of the meeting. No discussion on such motions shall be permitted and they shall, subject to rule 28, be immediately put to the vote.

Order of motions

Rule 28

The motions indicated below shall have precedence in the following order over all proposals or other motions before the meeting:

- (a) to suspend the meeting;
- (b) To adjourn the meeting;
- (c) To adjourn the debate on the question under discussion;
- (d) To close the debate on the question under discussion.

Submission of proposals and substantive amendments

Rule 29

Proposals and substantive amendments shall normally be submitted in writing to the Secretary-General of the Conference, who shall circulate copies to all delegations. Unless the Conference decides otherwise, substantive proposals shall be discussed or put to a decision no earlier than 24 hours after copies have been circulated in all languages of the Conference to all delegations. The President may, however, permit the discussion and consideration of amendments, even though these amendments have not been circulated or have only been circulated the same day.

Withdrawal of proposals and motions

Rule 30

A proposal or a motion may be withdrawn by its sponsor at any time before a decision on it has been taken, provided that it has not been amended. A proposal or a motion thus withdrawn may be reintroduced by any representative.

Decisions on competence

Rule 31

Subject to rule 21, any motion calling for a decision on the competence of the Conference to adopt a proposal submitted to it shall be put to the vote before a decision is taken on the proposal in question.

Reconsideration of proposals

Rule 32

When a proposal has been adopted or rejected, it may not be reconsidered unless the Conference, by a two-thirds majority of the representatives present and voting, so decides. Permission to speak on a motion to reconsider shall be accorded only to two speakers opposing reconsideration, after which the motion shall be immediately put to the vote.

VII. DECISION-MAKING

General agreement

Rule 33

The Conference shall make its best endeavours to ensure that the work of the Conference is accomplished by general agreement.

Voting rights

Rule 34

Each State participating in the Conference shall have one vote.

Majority required

Rule 35

1. Subject to rule 33, [decisions of the Conference on all matters of substance shall be taken by a two-thirds majority of the representatives present and voting.]
2. Except as otherwise provided in these rules, decisions of the Conference on all matters of procedure shall be taken by a majority of the representatives present and voting.
3. If the question arises whether a matter is one of procedure or of substance, the President of the Conference shall rule on the question. An appeal against this ruling shall be put to the vote immediately, and the President's ruling shall stand unless overruled by a majority of the representatives present and voting.
4. If a vote is equally divided, the proposal or motion shall be regarded as rejected.

Meaning of the phrase "representatives present and voting"

Rule 36

For the purpose of these rules, the phrase "representatives present and voting" means representatives casting an affirmative or negative vote. Representatives who abstain from voting shall be regarded as not voting.

Method of voting

Rule 37

1. Except as provided in rule 44, the Conference shall normally vote by show of hands, except that a representative may request a roll-call, which shall then be taken in the English alphabetical order of the names of the States participating in the Conference, beginning with the delegation whose name is drawn by lot by the President. The name of each State shall be called in all roll-calls, and its representative shall reply "yes", "no" or "abstention".
2. When the Conference votes by mechanical means, a non-recorded vote shall replace a vote by show of hands and a recorded vote shall replace a roll-call. A representative may request a recorded vote, which shall, unless a representative requests otherwise, be taken without calling out the names of the States participating in the Conference.
3. The vote of each State participating in a roll-call or a recorded vote shall be inserted in any record of or report on the meeting.

Conduct during voting

Rule 38

After the President has announced the commencement of voting, no representative shall interrupt the voting, except on a point of order in connection with the process of voting.

Explanation of vote

Rule 39

Representatives may make brief statements consisting solely of explanations of vote, before the voting has commenced or after the voting has been completed. The President may limit the time to be allowed for such explanations. The representative of a State sponsoring a proposal or motion shall not speak in explanation of vote thereon, except if it has been amended.

Division of proposals

Rule 40

A representative may move that parts of a proposal be decided on separately. If a representative objects, the motion for division shall be voted upon. Permission to speak on the motion shall be accorded only to two representatives in favour of and to two opposing the division. If the motion is carried, those parts of the proposal that are subsequently approved shall be put to the Conference for decision as a whole. If all operative parts of the proposal have been rejected, the proposal shall be considered to have been rejected as a whole.



Amendments

Rule 41

A proposal is considered an amendment to another proposal if it merely adds to, deletes from or revises part of that proposal. Unless specified otherwise, the word "proposal" in these rules shall be considered as including amendments.

Order of voting on amendments

Rule 42

When an amendment is moved to a proposal, the amendment shall be voted on first. When two or more amendments are moved to a proposal, the Conference shall vote first on the amendment furthest removed in substance from the original proposal and then on the amendment next furthest removed therefrom and so on until all the amendments have been put to the vote. Where, however, the adoption of one amendment necessarily implies the rejection of another amendment, the latter shall not be put to the vote. If one or more amendments are adopted, the amended proposal shall then be voted upon.

Order of voting on proposals

Rule 43

1. If two or more proposals, other than amendments, relate to the same question, they shall, unless the Conference decides otherwise, be voted on in the order in which they were submitted. The Conference may, after each vote on a proposal, decide whether to vote on the next proposal.
2. Revised proposals shall be voted on in the order in which the original proposals were submitted, unless the revision substantially departs from the original proposal. In that case, the original proposal shall be considered as withdrawn and the revised proposal shall be treated as a new proposal.
3. A motion requiring that no decision be taken on a proposal shall be put to the vote before a decision is taken on the proposal in question.

Elections

Rule 44

All elections shall be held by secret ballot unless, in the absence of any objection, the Conference decides to proceed without taking a ballot when there is an agreed candidate or State.

Rule 45

1. When one or more elective places are to be filled at one time under the same conditions, those candidates, in a number not exceeding the number of such places, obtaining in the first ballot a majority of the votes cast and the largest number of votes, shall be elected.

2. If the number of candidates obtaining such majority is less than the number of places to be filled, additional ballots shall be held to fill the remaining places.

#### VIII. SUBSIDIARY BODIES

##### Main Committees

###### Rule 46

The Conference may establish Main Committees as required which may set up subcommittees or working groups.

##### Representation on the Main Committees

###### Rule 47

Each State participating in the Conference may be represented by one representative on each Main Committee established by the Conference. It may assign to these Committees such alternate representatives and advisers as may be required.

##### Other committees and working groups

###### Rule 48

1. In addition to the committees referred to above, the Conference may establish such committees and working groups as it deems necessary for the performance of its functions.
2. Each committee may set up subcommittees and working groups.

###### Rule 49

1. The members of the committees and working groups of the Conference, referred to in rule 48, paragraph 1, shall be appointed by the President, subject to the approval of the Conference, unless the Conference decides otherwise.
2. Members of the subcommittees and working groups of committees shall be appointed by the Chairman of the committee in question, subject to the approval of that committee, unless the committee decides otherwise.

##### Officers

###### Rule 50

Except as otherwise provided in rule 6, each committee, subcommittee and working group shall elect its own officers.

Quorum

Rule 51

1. The Chairman of a Main Committee may declare a meeting open and permit the debate to proceed when representatives of at least one quarter of the States participating in the Conference are present. The presence of representatives of a majority of the States so participating shall be required for any decision to be taken.
2. A majority of the representatives of the General or Credentials Committee or of any committee, subcommittee or working group shall constitute a quorum.

Officers, conduct of business and voting

Rule 52

The rules contained in chapters II, VI (except rule 19) and VII above shall be applicable, mutatis mutandis, to the proceedings of committees, subcommittees and working groups, except that:

(a) The Chairmen of the General and Credentials Committees and the chairmen of the committees, subcommittees and working groups may exercise the right to vote,

(b) Decisions of committees, subcommittees and working groups shall be taken by a majority of the representatives present and voting, except that the reconsideration of a proposal or an amendment shall require the majority established by rule 32.

IX. LANGUAGES AND RECORDS

Languages of the Conference

Rule 53

Arabic, Chinese, English, French, Russian and Spanish shall be the languages of the Conference.

Interpretation

Rule 54

1. Speeches made in a language of the Conference shall be interpreted into the other such languages.
2. A representative may speak in a language other than a language of the Conference if the delegation concerned provides for interpretation into one such language.

Languages of official documents

Rule 55

Official documents of the Conference shall be made available in the languages of the Conference.

Sound recordings of meetings

Rule 56

Sound recordings of meetings of the Conference and of any Main Committee shall be made and kept in accordance with the practice of the United Nations. Unless otherwise decided by the Conference or the Main Committee concerned, no such recordings shall be made of the meetings of any working group thereof.

X. PUBLIC AND PRIVATE MEETINGS

General principles

Rule 57

The plenary meetings of the Conference and the meetings of any committee shall be held in public unless the body concerned decides otherwise. All decisions taken by the plenary of the Conference at a private meeting shall be announced at an early public meeting of the Plenary.

Rule 58

As a general rule, meetings of the General Committee, subcommittees or working groups shall be held in private.

Communiqués on private meetings

Rule 59

At the close of a private meeting, the presiding officer of the organ concerned may issue a communiqué through the Secretary-General of the Conference.

XI. OTHER PARTICIPANTS AND OBSERVERS

Representatives of organizations that have received a standing invitation from the General Assembly to participate in the capacity of observers in the sessions and work of all international conferences convened under its auspices

Rule 60

Representatives designated by organizations that have received a standing invitation from the General Assembly to participate in the sessions and work of all international conferences convened under its auspices, have the right

to participate as observers, without the right to vote, in the deliberations of the Conference, any Main Committee and, as appropriate, any other committee or working group.

Representatives of national liberation movements

Rule 61

Representatives designated by national liberation movements invited to the Conference may participate as observers, without the right to vote, in the deliberations of the Conference, any Main Committee and, as appropriate, any other committee or working group on any matter of particular concern to those movements.

Representatives of the specialized agencies 1/

Rule 62

Representatives designated by the specialized agencies may participate, without the right to vote, in the deliberations of the Conference, any Main Committee and, as appropriate, any other committee or working group on questions within the scope of their activities.

Representatives of other intergovernmental organizations

Rule 63

Representatives designated by other intergovernmental organizations invited to the Conference may participate as observers, without the right to vote, in the deliberations of the Conference, any Main Committee and, as appropriate, any other committee or working group on questions within the scope of their activities.

Representatives of interested United Nations organs

Rule 64

Representatives designated by interested organs of the United Nations may participate as observers, without the right to vote, in the deliberations of the Conference, any Main Committee and, as appropriate, any other committee or working group on questions within the scope of their activities.

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1/ For the purpose of these rules, the term "specialized agencies" includes the International Atomic Energy Agency and the General Agreement on Tariffs and Trade.

Representatives of non-governmental organizations

Rule 65

1. Non-governmental organizations invited to the Conference may designate representatives to sit as observers at public meetings of the Conference and any Main Committee.

2. Upon the invitation of the presiding officer of the conference body concerned and subject to the approval of that body, such observers may make oral statements on questions in which they have special competence.

Written statements

Rule 66

Written statements submitted by the designated representatives referred to in rules 60 to 65 shall be distributed by the secretariat to all delegations in the quantities and in the language in which the statements are made available to it at the site of the Conference, provided that a statement submitted on behalf of a non-governmental organization is related to the work of the Conference and is on a subject in which the organization has a special competence.

XII. SUSPENSION AND AMENDMENT OF THE RULES OF PROCEDURE

Method of suspension

Rule 67

Any of these rules may be suspended by the Conference provided that 24 hours' notice of the proposal for the suspension has been given, which may be waived if no representative objects. Any such suspension shall be limited to a specific and stated purpose and to a period required to achieve that purpose.

Method of amendment

Rule 68

These rules of procedure may be amended by a decision of the Conference taken by a two-thirds majority of the representatives present and voting, after the General Committee has reported on the proposed amendment.

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GENERAL ASSEMBLY

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PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Third session  
Geneva, 12 August-4 September 1991  
Agenda item 3

ARRANGEMENTS FOR FUTURE SESSIONS OF THE PLENARY COMMITTEE

Draft decision proposed by the Chairman on the  
basis of informal consultations

Organization of work of the fourth session

The Preparatory Committee, having considered the question of arrangements for its fourth session, decides:

1. That its fourth session shall be designated as a negotiating session. In consequence, no general discussions on issues or reports will be held. The discussions will focus on proposals and negotiating texts;
2. That the bulk of the work of the session shall be conducted through the mechanism of informal consultations (with interpretation);
3. That the plenary will meet throughout the session. It will begin from the first week to discuss the cross-sectoral issues, starting with financial resources and the transfer of technology and that time will be given to the negotiations of these issues with a view to reaching a final agreement before the end of the session;

4. That Working Groups I and II will begin their meetings from the second week;
5. That Working Group III will begin its work from the first week to discuss the Earth Charter/Rio de Janeiro Declaration on Environment and Development and the question of institutions;
6. That the secretariat will distribute documentation in all official languages six weeks before the opening of the session;
7. That delegates shall endeavour to submit position papers before the session begins;
8. That during the session, the only documentation processed will be formal proposals by delegations presented in the customary form and revisions of texts for negotiations. A cut-off date early in the session shall be established for the submission of all draft proposals under all items;
9. To endeavour to adhere strictly to the programme of work for its fourth session, once it has been adopted;
10. To request the General Assembly to approve the dates of 2 March to 3 April 1992 in New York for its fourth session;
11. To request the General Assembly to allow it to hold up to six meetings a day. As a general rule, it will hold two meetings in the mornings, and two meetings in the afternoons, from Monday to Friday, and two meetings on Saturday mornings.



United Nations

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**GENERAL ASSEMBLY**

Unnumbered  
4 September 1991

Original: English

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PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Third Session  
Geneva, 12 August-4 September 1991  
Agenda Item 2(d)

**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**

**PROVISIONAL AGENDA, ORGANIZATION OF WORK AND PROVISIONAL  
RULES OF PROCEDURE OF THE CONFERENCE**

**Draft Decision proposed by Brazil**

**Preambular:** The Preparatory Committee, having adopted L.42, on the understanding that, as necessary, relevant parts of it could be reviewed at its 4th session in light of the decision on this matter by the United Nations General Assembly at its 46th session

**Operative:** recommends to the United Nations General Assembly at its 46th Session to consider measures to ensure adequate and full participation of developing countries at UNCED and to examine the question of participation in the Conference and its subsidiary organs.



## PROTECTION OF THE ATMOSPHERE

### SUMMARY

As a result of the deliberations at the third session of the PrepCom, the building blocks (programme areas) of the Protection of the Atmosphere component of Agenda 21 exist. The scope of this component has been broadened (or at least the potential to broaden it now exists) beyond that of merely energy and almost exclusively climate change. As it currently stands, however, the programme areas do not examine the atmospheric issues and "solutions" in an integrated approach nor does there appear to be consideration given to the implications of the atmospheric issues and proposed responses on other environment and development issues. A window of opportunity (prior to 1 October 1991) exists to advise the Secretary General as to what Canada would like to see in the protection of the atmosphere programme areas and as to how Canada would like to see the question of the "interconnections" dealt with for these issues.

### Documentation

- |                               |   |  |
|-------------------------------|---|--|
| A/CONF.151/PC/42/Add.1        | - | Protection of the Atmosphere:<br>Options for Agenda 21       |
| A/CONF.151/PC/57              | - | Protection of the Atmosphere:<br>Climate Change              |
| A/CONF.151/PC/58              | - | Protection of the Atmosphere:<br>Ozone Depletion             |
| A/CONF.151/PC/59              | - | Protection of the Atmosphere:<br>Transboundary Air Pollution |
| A/CONF.151/PC/60              | - | Protection of the Atmosphere:<br>Sectoral Issues             |
| A/CONF.151/PC/WG.I/L.21/Rev.2 | - | Protection of the Atmosphere<br>Decision                     |
| A/CONF.151/PC/WG.I/L.25/Rev.2 | - | Protection of the Atmosphere:<br>Options for Agenda 21       |

## PREPCOM DISCUSSIONS

The following objectives were identified for the third session of the UNCED PrepCom:

1. Identifying the linkages between the atmospheric issues of climate change, transboundary air pollution, and ozone depletion. This would include aspects of the climate change issue which are aggravated by proposed international responses to the other issues, which aggravate the other atmospheric issue or for which there are opportunities for complementary or synergistic response actions.
2. Identifying 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 for dealing with these linkages which could be considered by the relevant sectoral bodies.
3. Identifying critical linkages and possible elements of an agenda for action including consideration of the linkages between climate change and such issues as demographic pressures, international economic development, poverty, quality of the living environment, health, condition of women and children, vulnerable groups, international economic environment and food security.
4. Encouraging the UNCED PrepCom to proceed expeditiously with its work on policy and other response mechanisms (cross-sectoral objectives) such as capacity development; technology development, cooperation and transfer; normative measures; economic policy and instruments; information, monitoring and data; and financial resources so that the results of these deliberations will be available for consideration by the FCCC, INC and other negotiating bodies.
5. Encouraging discussions on effective means of strengthening cooperation on the 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 the environmental, social (including human health concerns) and economic consequences (costs and benefits) of climate change on a regional basis;

- increasing the resilience of key climate dependent sectors (e.g., agriculture and forestry);
  - improving communications 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. Encouraging discussions on the needs and mechanisms for establishing multiple-use regional and global monitoring and assessment capabilities including physical, biological, social and economic variables that could be used to assess the state of the regional and global climates, their variations and trends, and the responses of managed and unmanaged ecosystems (including protected areas) and related social and economic systems.
  7. Encouraging the discussion of 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 seeking the development of a comprehensive global energy strategy as proposed by the UNCED Secretariat in PC 22. The second PrepCom decision of Working Group I on climate change underlined that UNCED should complement but not duplicate or pre-empt the work of the INC. The development of a comprehensive energy strategy, if necessary, is an issue that should be addressed within or, at least, in cooperation with the INC process.

Discussions on the Protection of the Atmosphere issues (climate change, ozone depletion and transboundary air pollution) began with J. Ripert, chairman of the INC, providing a detailed account of the most recent negotiating session.

This was followed by a series of delegation interventions that added little to what is already known. General concerns repeated by many LDC delegations was to ensure that funds to support developing country participation in the INC process remained available beyond the September 1991 Nairobi session. A short intervention by the US was upbeat on the positive atmosphere surrounding the INC negotiations and stressed the importance that UNCED not duplicate the INC process.

The Netherlands, speaking on behalf of the EC, expressed the view that further work needed to be done on economic instruments related to the atmospheric issues. They also noted that emphasis on energy in the Secretariat documents was necessary but not

a sufficient first step suggesting that the scope had to be expanded to include other sectors such as agriculture and forests.

For its part, Brazil expressed hope that the Nairobi INC session would produce a convention structure while Malaysia stressed that any effort to produce protocols at this time would be counter productive and dilute LDC contributions to the main INC process. Ghana expressed the view that "right to development" must figure in the framework convention and added that LDC cooperation would only be forthcoming when resources are made available. To this and similar statements Ripert responded that even though it was recognized that developed countries had to take the lead in addressing atmospheric issues, responsibility for atmospheric issues was a shared one, involving both developed and developing countries. In concluding, J. Ripert also noted (a) LDC concern over participation if additional funds were not made available by mid-October; (b) need of LDCs to prepare for, and not just participate in, INC sessions (i.e., necessity of economic cost studies); and (c) Agenda 21 should take account of programmes which will be financed under the climate change convention but which do not yet exist.

The ozone discussion was even more pro-forma. One common theme ran throughout virtually all presentations: the need for those countries that had not signed on to or ratified the revised Montreal undertaken financial commitments to pay up by November 1991. Australia also noted satisfactory progress in developing non-compliance aspects of the Montreal Protocol while China underlined its recent joining of the Montreal Protocol and called for speedy technology transfer and financial assistance.

Discussions on transboundary air pollution (TBAP) was introduced by P. Sand who had managed the ECE Long Range Transboundary Air Pollution (LRTAP) Convention before joining the UNCED Secretariat. He noted that information on TBAP was really only available from Europe and North America, a result of the ECE activity and that current technical exchanges outside this region are limited. He suggested that the number one question that needed to be addressed was whether the regional experience of the ECE could be transferred and built on by other regional groups, possibly through other UN regional economic commissions. Increasing concern was raised by several LDCs over the growing levels of TBAP and the effects this was having, in particular in urban areas. The Brazilian delegation noted that if, as the Secretariat has posited, technology exists that can successfully begin to address issue of TBAP, the question PrepCom must ask is how to develop the necessary mechanisms for the transfer of existing technology to developing countries.

The remainder of the discussions at this third session, dealt almost exclusively with the options for Agenda 21. In the Secretariat's introduction to this subject, it was noted that the options set out in PC/42/Add.1 could provide the building blocks for

Agenda 21 actions to address the Protection of the Atmosphere issues and could establish the links with the INC process through identifying guiding principles or programme actions that could augment ongoing activities, or status or speed of INC negotiations.

Debate on Agenda options began with delegations focusing on three major issues: (a) how linkages could or should be made with other sectors where activity affected the atmosphere; (b) whether the Secretariat's concentration on the energy issues in setting out the programme activities undermined the utility of the document through transgressing into issues that fall under the purview of the INC; and (c) the cost and institutional of the proposed programme activities.

The US delegation noted that the Secretariat had not done what the second PrepCom had requested, namely examine the linkages at the national, regional, and global levels on atmospheric issues, but rather the Secretariat had concentrated almost exclusively on one atmospheric issue (change climate) and on one sector related to that issue (energy). As a result, proposals advocated extensive regulation, centralized decision making and, by focusing almost exclusively on policy recommendations, addressing climate change "inappropriate" to develop Agenda 21 on the basis of the documents PC/42/Add.1 and PC/60. Most OECD delegations, including Canada, echoed the US concerns over the inappropriate concentration on the energy sector, and their disappointment that the linkage issues had not been better dealt with in documentation prepared for this session of the PrepCom.

Nordic delegations, and to a degree those from the EC countries, accepted that UNCED had to address energy issues in a manner which did not cross over into policy areas that more properly fall under the INC. Sweden proposed that a separate category be created for the transportation sector and that several of the proposed activities should be merged to create just four programme areas. The UK while strongly supporting the view that UNCED must avoid duplication with the INC and the IPCC, also stated that there was no case for new international energy bodies, and encouraged the UNCED Secretariat to follow closely the work of the IPCC WGIII.

Developing countries generally accepted the documentation as a basis for specific discussions although some (Algeria) were quite critical that the Secretariat had not more clearly identified linkages with other sectors. It was also stated that institutional issues should be addressed globally and that this should take place in WGIII of the PrepCom. The Philippines noted that most LDCs were already a decade behind in developing energy plans to meet population growth and demand, and that, therefore, rather than proposing new programmes, the existing plans and facilities should remain a priority (e.g., ensure provision of environmental equipment for coal fired electrical plants). China expressed its view that action programmes should have had more substance on air pollution and that for developing countries, energy efficiency should remain a priority rather than a shift to renewable energy sources. Argentina, along

with several other developing countries, reminded the Secretariat that impact assessments and costing were crucial before they could agree to sign on to specific proposals being made for Agenda 21.

The brief Canadian intervention stressed the importance of UNCED work on linkages, expressed disappointment that the Secretariat had overly concentrated on the energy sector, and strongly urged that UNCED not attempt to duplicate the work of the INC. Canada's statement noted the importance of adaption to atmospheric issues and the fact that actions/"solutions" in one sector will have implications in other sectors. UNCED was urged to examine these interrelationships as a matter of priority. Finally, the Canadian intervention noted that the "energy transition" would have to build on existing systems and that improved local management of renewable resources, along with the adaptation of existing and new technologies to local conditions were of equal, if not greater value, than proposals for large scale funding increases for R&D on environmentally sound energy systems and new technologies.

The discussions on the Protection of the Atmosphere issues during the second week began with an informal session to consider the chairman's summary a narrative which is the chairman's understanding of the earlier interventions (PC/WG.I/CRP.II) plus his views of the atmosphere component of Agenda 21 (PC/42/Add.1).

Concerns were expressed by a number of delegations that this document did not properly reflect the statements by countries. A number of OECD countries reiterated the need for Agenda 21 to take a broader view (more than just energy and climate change) and a more comprehensive approach to addressing the atmospheric issues and questioned the restricting of activities to only the energy sector. The G-77 countries called for specific recognition within each of the programme areas of the means and mechanisms for implementing the identified activities including financial resources and technology.

To address the concern of the limited scope of Agenda 21, proposals were put forwarded for structuring the programme for actions. There appeared to be a consensus that an effective structure would be to divide the programme into four areas: energy sector, transport sector, industrial sector, and addressing the uncertainties. The three atmospheric issues could then be dealt within these areas, thereby providing an integrated approach to responding to the atmospheric issues.

Canada supported the call for a broadening of the scope of the atmospheric proposals within Agenda 21 and further suggested that the proposals should recognize that the atmosphere and not energy is the issue. Energy should be a component of the programmes within the atmospheric issues, however, the other components such as industry (agriculture, forestry, and manufacturing) also need to be part of the response.



The chairman of WG I during the informal discussions on the proposed Agenda 21 pointed to the need to distinguish between per and post-UNCED in terms of the relative roles of the INC-Climate and UNCED processes. He indicated that after UNCED, Agenda 21 would "kick in".

Formal negotiations on the atmospheric component of Agenda 21 began on Friday, 23 August with a revised version of the text (PC/42/Add.1) which following considerations at this session will be used for the negotiations at the fourth session. The initial version of this revised proposal (PC/WG.I/L.25), however, did not reflect the changes suggested during the informal consultations. The result was a reiteration of the same concerns and suggestions as had been raised during the informal consultations. Canada reiterated its concerns regarding the unbalanced approach and the need for an atmospheric centered approach rather than an energy-centred approach to this component of Agenda 21. These concerns and suggestions received the support of a number of countries.

Suggestions for concepts or activities that should be included within Agenda 21 are:

- differentiated responsibilities of countries should be identified and countries classified based on this responsibility (Tunisia);
- in each area, the responsibility for implementation should be identified based on the recognition for differentiated responsibility and for those areas where developing countries are expected to take action, the need for new and additional financial resources should be identified;
- the heart of the energy related problems is the per-capita consumption of developed countries;
- need to include activities directed at strengthening education, information, research and development programmes;
- sustainable lifestyles and consumption patterns should not be limited to energy but should also include other sectors;

The discussions during the third week continued to focus on the proposals for Agenda 21 document prepared by the Secretariat for this session. A number of delegations, primarily OECD countries identified the need to more fully integrate into Agenda 21 the other atmospheric issues (transboundary air pollution and ozone depletion), to broaden the activities to include limitation responses in non-energy sectors and to recognize the need for adaptation in agriculture, forests, biodiversity, freshwater, oceans, land management, and wastes.

The developing countries, lead primarily by India with the support of Mexico and Brazil, pushed for recognition within every activity of the special circumstances of developing countries, the need for new and additional financial resources and the transfer of technology on preferential and non-commercial terms, and the differentiated responsibility between developed and developing countries. It was

pointed out that the means and modalities for the transfer of financial resources and technologies for those activities under negotiations under the climate change convention should not be duplicated or pre-empted by deliberations within UNCED. It was therefore suggested that the concerns of developing countries and those not wanting to pre-empt or duplicate the INC-CLIM process (which India indicated it also did not wish to do) were dealt with by including the following "chapeau" in the revised option for Agenda 21 for this issue:

The energy component of Agenda 21 should be flexible and evolve with changing needs and circumstances. In particular, the INC on Climate Change is separately addressing many of the issues contained in the following text. The following proposals referring to climate related activities as being negotiated within the INC process should not be interpreted as prejudging those negotiations including questions of general objectives and commitments, standards, conditionality, institutional mechanisms for funding incremental costs.

The proposal by India for this chapeau illustrates their preoccupation with the funding and technology transfer issues, as well as the conditionality question. The INC on Climate Change is separately addressing many of these issues. Throughout the text that follows, it is understood that:

- a) commitments on the part of developing countries are of a contractual character, conditional upon the provision of full incremental costs as may be provided in the Framework Convention on Climate Change; and
- b) the term "international or intergovernmental organizations" may cover existing or new mechanisms, a decision on this will have to await the outcome of the INC on Climate Change.

Another point that was raised during the debate was whether along with developing countries, countries with economies in transition should also receive special consideration and be the target of funding and technology mechanism. The basis for the developing countries with economies in transition was that this class of countries were not identified in UNGA Res. 44/228 and that they did not understand who was included in this class of countries. A debate on this issue was averted by placing square brackets around this phrase where it appears in the option paper.

At the end of the third week, Working Group I had managed to "go through" the option paper identifying by square

brackets those areas on which there was disagreement or a need for further clarification before acceptance. The programme areas that currently make up the options paper are:

- promoting the energy transition
- increasing energy efficiency
- promoting renewable energy sources
- promoting transport systems which are specifically safe and environmentally sound.

Programme areas on: promoting industrial development that does not adversely impact the atmosphere; promoting agricultural and forestry policies that do not adversely impact the atmosphere; promoting sustainable energy consumption patterns and life styles; and addressing the uncertainties were not dealt with during this session and will be the subject of deliberations at the fourth session (square brackets). Promoting renewable energy sources, although discussed at this session of the PrepCom will be further developed at the fourth session when the report of the UN Intergovernmental Committee on New Renewable Sources of Energy will be available.

The programme area on industrial development was identified by several developed countries as one which should be part of Agenda 21. Several developing countries could not see how this programme area would add to the activities as industrial development, from their perspective, was dealt with under the energy programmes. A number of countries, both developed and developing supported the addition of this programme area and one on agriculture and forestry noting that these sectors contribute to atmospheric problems through more than just their associated energy aspects.

The need not to duplicate the work of the INC-CLIM was also introduced into the decision by the Netherlands as had been the case at the second session of the PrepCom.

A significant factor in the debate on this decision, particularly that on ozone depletion and transboundary air pollution, was the lack of knowledge on this subject by the majority of the delegations. A number of points were raised during the debate that demonstrated a complete lack of scientific knowledge or lack of knowledge on how these issues were being dealt with in their respective fora.

## **OUTCOMES AND ASSESSMENT**

The results of the deliberations at the third session on the protection of the atmosphere issues are contained in the decisions A/CONF.151/PC/WG.I/L.21/Rev.2 and A/CONF.151/PC/WG.I/L.33/Rev.3. The first of these documents deals with the

three atmospheric issues and the manner in which the Secretariat is to carry out the remaining work.

Under climate change the Secretary General is requested to continue to follow the ongoing process related to climate change, to make available to the INC process relevant documents and decisions from the third session of the PrepCom, and, without duplicating or pre-empting the work of the INC, to follow that committee's work and to keep it informed of the interconnections between climate change and other environment and development issues as they emerge from the PrepCom process.

The issues of transboundary air pollution and ozone depletion are dealt with in the protection of the atmosphere decision through identifying programme areas and/or activities for Agenda 21. Under ozone depletion, the decision calls for all states to ratify, accept, or approve the Montreal Protocol and its 1990 amendments, to support further expansion of the observing network and for Parties to the Protocol to actively participate in the assessments. The parties to the Montreal Protocol are also invited to consider further actions that prove warranted and feasible on the basis of their assessment.

Under transboundary air pollution, the draft decision includes the need for a more balanced geographic coverage of the Global Atmospheric Watch network and addresses the need for Parties of the Convention on Long-range Transboundary Air Pollution to share developing information with respect to monitoring, assessment and technologies and the need for identification of other regions which could benefit from similar programmes. Also included is a proposal calling for the identification of environmental impacts of air pollution resulting from natural disasters and the deliberate and/or accidental destruction of natural resources.

Decision A/CONF.151/PC/WG.I/L.33/Rev.3 identifies the building blocks for the protection of the atmosphere component of Agenda 21. The programme areas which currently make up this component are:

- promoting the energy transition;
- increasing energy efficiency;
- promoting renewable energy sources;
- promoting transport systems which are specifically safe and environmentally sound;
- promoting industrial development that does not adversely impact the atmosphere;
- promoting agricultural and forestry policies that do not adversely impact the atmosphere;
- promoting sustainable energy consumption patterns and life styles; and
- addressing the uncertainties.

This decision recognizes the fact that the latter four programme areas were not discussed in detail at the third session and therefore would be the subject of negotiations at the fourth session. Governments have been invited to submit any additional comments on document L.25/Rev.2 to the UNCED Secretariat in writing before 1 October 1991.



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Third session  
Geneva, 12 August - 4 September 1991  
Working Group I  
Agenda item 2

### PROTECTION OF THE ATMOSPHERE

Revised draft decision proposed by the Chairman

#### A. Climate change

The Preparatory Committee,

(a) Takes note of the report of the Secretary-General of the Conference on protection of the atmosphere: climate change (A/CONF.151/PC/57) concerning the ongoing processes related to climate change, and requests the Secretary-General of the Conference to continue to follow those processes in order to ensure that the relevant results are reflected in the work of the Preparatory Committee;

(b) Requests the Secretary-General of the Conference to make available the documents prepared for the third session of the Preparatory Committee relevant to climate change and the protection of the atmosphere to the Intergovernmental Negotiating Committee, including the summary of discussions of the relevant Working Group and plenary sessions and the decisions of the Preparatory Committee;

(c) Further requests the Secretary-General of the Conference without duplicating or preempting the work of the Intergovernmental Negotiating

Committee to continue to follow the work of that Committee and to keep the INC informed on the interconnections between climate change and other environment and development issues, as they emerge from the Preparatory Process of the United Nations Conference on Environment and Development, in particular the elaboration of Agenda 21.

B. Ozone depletion

The Preparatory Committee,

(a) While noting the growing concern over the continuing depletion of the Earth's stratospheric ozone layer, with the ongoing work within the framework of the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer, as amended in London in 1990;

(b) Agrees, in light of its evaluation of ongoing activities under the Vienna Convention and the Montreal Protocol, on the following with regard to Agenda 21 in relation to ozone depletion:

- (i) All States that have not already done so should be urged to ratify, accept or approve the Montreal Protocol and its 1990 amendments, and to pay their contributions towards the Vienna/Montreal Trust Funds and the Interim Multilateral Ozone Fund;
- (ii) All States and relevant international organizations should be encouraged to support further expansion of the Global Ozone Observing System Network coordinated by the World Meteorological Organization, by facilitating - through bilateral and multilateral funding - the establishment and operation of additional monitoring stations, especially in the tropical belt and the Southern Hemisphere;
- (iii) All parties to the Montreal Protocol and relevant international organizations should, with appropriate support to developing countries, be encouraged to participate actively in the continuous assessment of scientific information, health and environmental effects as well as technological/economic implications of stratospheric ozone depletion;
- (iv) The parties to the Montreal Protocol ~~should agree to take~~ <sup>are invited to consider further</sup> further actions that prove warranted and feasible on the basis of these assessments, encouraged by the new and additional funding resources technologies and mechanisms through the establishment of the Interim Multilateral Ozone Fund; by the balanced representations in management and the smooth development work to implement the fund in order to compensate developing countries in meeting the incremental cost for complying with the Montreal Protocol;
- (v) The industries concerned and the international business community at large should be urged to contribute fully towards ongoing efforts under the Montreal Protocol and its implementing mechanisms.

Committee to continue to follow the work of that Committee and to keep the INC informed on the interconnections between climate change and other environment and development issues, as they emerge from the Preparatory Process of the United Nations Conference on Environment and Development, in particular the elaboration of Agenda 21.

## B. Ozone depletion

### The Preparatory Committee,

(a) While noting the growing concern over the continuing depletion of the Earth's stratospheric ozone layer, satisfaction was expressed with the ongoing work within the framework of the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer, as amended in London in 1990;

(b) Takes note of the report of the Secretary-General of the Conference on Protection of the atmosphere: ozone depletion (A/CONF.151/PC/58);

(c) Encouraged by the new and additional financial resources contributed to the interim multilateral ozone fund and by the balanced representation in its management, and noting the progress made in work to implement the fund, which was established to meet all agreed incremental costs in order to enable developing countries to comply with the provisions of the Protocol;

(d) Agrees, in light of its evaluation of ongoing activities under the Vienna Convention and the Montreal Protocol, on the following with regard to Agenda 21 in relation to ozone depletion:

- (i) All States that have not already done so should be urged to ratify, accept or approve the Montreal Protocol and its 1990 amendments, and to pay their contributions towards the Vienna/Montreal Trust Funds and the Interim Multilateral Ozone Fund;
- (ii) All States and relevant international organizations should be encouraged to support further expansion of the Global Ozone Observing System Network coordinated by the World Meteorological Organization, by facilitating - through bilateral and multilateral funding - the establishment and operation of additional monitoring stations, especially in the tropical belt and the Southern Hemisphere;



- (iii) All Parties to the Montreal Protocol and relevant international organizations should, with appropriate support to developing countries, be encouraged to participate actively in the continuous assessment of scientific information, health and environmental effects as well as technological/economic implications of stratospheric ozone depletion;
- (iv) The Parties to the Montreal Protocol are invited to consider further actions that prove warranted and feasible on the basis of these assessments;
- (v) The industries concerned and the international business community at large should be urged to contribute fully towards ongoing efforts under the Montreal Protocol and its implementing mechanisms.

### C. Transboundary Air Pollution

#### The Preparatory Committee,

(a) Takes note of the report of the Secretary-General of the Conference on Protection of the atmosphere: transboundary air pollution (A/CONF.151/PC/59).

(b) Agrees, also taking into account the potential legal conflicts over transboundary damage and the need for cooperative arrangements to deal with major accidents and environmental emergencies, on the following with regard to Agenda 21, in relation to transboundary air pollution:

- (i) All States should be urged to ensure a more balanced geographical coverage of the Global Atmosphere Watch network coordinated by the World Meteorological Organization, by facilitating, where appropriate - through multilateral and bilateral funding - the establishment and operation of additional monitoring stations in developing countries; and by contributing to the development of emission inventories and further basic information on air pollution, with special emphasis on human health and environmental impacts, including in urban areas;
- (ii) Parties to the Convention on Long-range Transboundary Air Pollution should participate in the ongoing review process, with a view to strengthening its implementation;
- (iii) The parties to the Convention on Long-range Transboundary Air Pollution should be encouraged to (1) share with

developing countries the ongoing process of monitoring, modelling, assessment and information exchange on the best available technologies for control of emissions from stationary and mobile sources of air pollution, and (2) to make available multilateral and bilateral funding to facilitate the participation and training of experts from developing countries, for example, in the context of the relative regional programmes of the Economic Commission for Europe;

(iv) Appropriate international organizations, in cooperation with regional and/or subregional organizations concerned, should be encouraged to identify areas that could benefit from similar cooperative programmes for transboundary air pollution monitoring and abatement, including the environmental impacts of air pollution resulting from natural disasters and the deliberate and/or accidental destruction of natural resources.

Oral revisions to draft decision A/CONF.151/PC/WG.I/L.21/Rev.2

(a) In the preamble of section B, the words "of all delegations" before the words "over the continuing depletion" were deleted and the words "express general satisfaction with the ongoing work" were replaced by the words "satisfaction was expressed with the ongoing work";

(b) In section B, two new paragraphs were inserted before paragraph (b), to read as follows:

"Takes note of the report of the Secretary-General of the Conference on Protection of the atmosphere: ozone depletion (A/CONF.151/PC/58)"

"Encouraged by the new and additional financial resources contributed to the interim multilateral ozone fund and by the balanced representation in its management, and noting the progress made in work to implement the fund, which was established to meet all agreed incremental costs in order to enable developing countries to comply with the provisions of the Protocol.";

(c) Sub-paragraph (b), (iv) was replaced by the following:

"The Parties to the Montreal Protocol are invited to consider further actions that prove warranted and feasible on the basis of these assessments";

(d) In section C, a new paragraph was inserted before paragraph (a), which read as follows:

"Takes note of the report of the Secretary-General of the Conference on Protection of the atmosphere: transboundary air pollution (A/CONF.151/PC/59)".

C. Transboundary Air Pollution

The Preparatory Committee,

(a) Agrees, also taking into account the potential legal conflicts over transboundary damage and the need for cooperative arrangements to deal with major accidents and environmental emergencies, on the following with regard to Agenda 21, in relation to transboundary air pollution:

- (i) All States should be urged to ensure a more balanced geographical coverage of the Global Atmosphere Watch network coordinated by the World Meteorological Organization, by facilitating, where appropriate - through multilateral and bilateral funding - the establishment and operation of additional monitoring stations in developing countries; and by contributing to the development of emission inventories and further basic information on air pollution, with special emphasis on human health and environmental impacts, including in urban areas;
  - (ii) Parties to the Convention on Long-range Transboundary Air Pollution should participate in the ongoing review process, with a view to strengthening its implementation;
  - (iii) The parties to the Convention on Long-range Transboundary Air Pollution should be encouraged to (1) share with developing countries the ongoing process of monitoring, modelling, assessment and information exchange on the best available technologies for control of emissions from stationary and mobile sources of air pollution, and (2) to make available multilateral and bilateral funding to facilitate the participation and training of experts from developing countries, for example, in the context of the relative regional programmes of the Economic Commission for Europe;
  - (iv) Appropriate international organizations, in cooperation with regional and/or subregional organizations concerned, should be encouraged to identify areas that could benefit from similar cooperative programmes for transboundary air pollution monitoring and abatement, including the environmental impacts of air pollution resulting from natural disasters and the deliberate and/or accidental destruction of natural resources.
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Agenda Item 2

### PROTECTION OF THE ATMOSPHERE

#### Proposal submitted by the Chairman

#### Protection of the Atmosphere: Options for Agenda 21

#### INTRODUCTION

1. The Atmosphere component of Agenda-21 is flexible and evolving. The INC negotiations on climate change address 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 preempt, 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.

2. [Six][Eight] major programme areas are proposed with regard to the protection of the atmosphere, for the relevant sectors - energy, transport and industry, which are major sources of atmospheric pollution. Programme Areas A-C in particular could be organized under the overall heading of "Promoting Environmentally [Safe and] Sound Energy Development". The Programme areas are as follows:

- A. PROMOTING THE ENERGY TRANSITION
- B. INCREASING ENERGY EFFICIENCY
- C. PROMOTING RENEWABLE ENERGY SOURCES
- D. PROMOTING ENVIRONMENTALLY SOUND AND SUSTAINABLE TRANSPORT SYSTEMS
- {E. PROMOTING INDUSTRIAL DEVELOPMENT THAT DOES NOT ADVERSELY IMPACT THE ATMOSPHERE
- F. PROMOTING AGRICULTURAL DEVELOPMENT THAT DOES NOT ADVERSELY IMPACT THE ATMOSPHERE
- G. PROMOTING SUSTAINABLE ENERGY CONSUMPTION PATTERNS AND LIFE STYLES
- H. ADDRESSING THE UNCERTAINTIES]

{Note: One country suggested that these programme areas should be divided into those dealing with energy consumption on the one hand, and energy production on the other.}

#### A. Promoting the Energy Transition

#### Basis for Action

3. Most of the World's energy for human consumption is produced and used

today in unsustainable ways. The World must continually strive for energy development paths that are increasingly sound environmentally. This will require a transition to Environmentally [Safe and] Sound Energy Systems (ESES). Conventional, as well as new and renewable energy sources should be used in ways which respect the environment, subject to the imperative requirements of meeting basic human needs. There is a considerable scope for improvement in all the sectors. The path to increased reliance on environmentally [safe and] sound energy systems must be vigorously pursued.

#### Objectives

4. The long-term objective is to implement an energy transition from the present polluting and wasteful energy production and consumption patterns, toward one relying on environmentally [safe and] sound energy systems (ESES), increasingly based on efficiency in energy production, transmission and consumption, as well as on the use of renewable sources of energy. Fossil fuels and other conventional energy sources will continue to be important, and consequently it is essential that new developments employ the most efficient and least polluting technologies[, taking into consideration the Capital/Output ratio in the case of developing countries.]

5. Countries should/could set objectives for increasing the contribution of ESES to their energy supply and consumption mix, in particular through the promotion of the development of alternative and less polluting technologies.

6. Developing countries [and countries with economies in transition] will need considerable increases in energy consumption to support economic and social development efforts, even if the most energy efficient technologies are utilized. Increasing the availability of energy supplies in economically and environmentally [safe and] sound ways is a major priority.

7. The energy transition will entail major changes in the patterns of energy production and consumption[, especially in so far as fossil fuels [and nuclear energy] are concerned]. In this context, special consideration will need to be given to developing countries, and economies heavily dependent on the production, exports and/or consumption of fossil fuels, to ensure that the transition does not adversely affect their development, taking into account the rights of each country to choose its own path to the transition. Furthermore, the energy transition should not lead to the promotion of existing or new energy technologies that are unsafe and have significantly more adverse environmental impacts.

8. In order to fulfill the increasing energy requirements of developing countries, and to enable them to make progress on the energy transition, ways and means will need to be identified to ensure funding and technology transfer, consistent with United Nations General Assembly resolution 44/228, with a view to fulfil the objectives of the Conference, in particular those stipulated in Section I, paragraph 15, sections (j) and (k).

#### 9. Activities

##### a. Energy Supply Development

Recognizing the need for increasing energy supplies in developing countries, developed countries, the relevant UN bodies, inter-governmental organizations, and financial institutions, the private sector as appropriate, should/could cooperate with developing countries to achieve increased energy supplies to support their development efforts, taking into account environmental considerations.

##### b. Availability of Energy Technologies

Developed countries should/could cooperate with developing countries [and countries with economies in transition] to enable them to acquire or develop the relevant new, technologies, practices and policies.

c. Incorporation of Environmental Costs

Governments, in cooperation with relevant UN Agencies should/could develop mutually agreeable and comparable methodologies and criteria for incorporating the full costs of the environmental impacts caused by the production, transmission and consumption and treatment/disposal of wastes generated, of energy into the price of energy, to facilitate full environmental costing of energy in all countries[, particularly those with high per capita energy consumption levels].

d. Increasing the Contribution of ESES

Countries [with high per capita energy consumption levels] should/could re-examine current energy supply mixes to determine how increased reliance on ESES could be pursued in cost-effective manner, in the light of their unique social, physical, economic and political characteristics. To facilitate this, countries should/could coordinate their energy plans regionally, where applicable. Countries should/could also exchange information on their energy and environment situations in order that all could learn from each other on how to best pursue sustainable energy development.

e. Research Priorities on ESES

Countries and regional economic integration organizations should/could, [to the maximum extent possible, increase their][review priorities for] research and development of ESES. In addition to technology development, energy management practices and policies, barriers to relevant technology transfer and market penetration of technologies, including new ones may need to be examined.

f. Integration of Environment into Energy Decision Making

Governments, at local, regional and international levels, industry as well as the private sector should/could seek to incorporate environmental concerns into their decision making concerning energy production and use.

g. Integrated Energy-environment Planning

Governments and international organizations, with special support from the developed countries should/could cooperate in the development of appropriate methodologies for the making of integrated energy-environment policy decisions. Governments should/could be encouraged to carry out environmental assessments of policy decisions and projects. Such assessments should/could be made widely available, including harmonized inter-country analyses.

h. Education and Awareness

Education and awareness raising programmes at the local, national and international levels concerning energy efficiency, environmentally [safe and] sound energy systems, should/could be introduced or intensified.

i. Information

Countries, in cooperation with the relevant United Nations bodies, international and regional and sub-regional bodies, and NGOs, should/could give priority to strengthening their efforts at collecting, analyzing and disseminating relevant information.

j. Capacity building

Countries, in cooperation with the relevant United Nations bodies and international donors, and NGOs, should/could mobilize technical and financial resources, and facilitate technical cooperation to developing countries [and countries with economies in transition] to reinforce their technical, managerial, planning and administrative capacities to develop, and implement environmentally [safe and] sound energy systems.

[k. Review of Public Financial Institutions

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

10. Means of Implementation

{The cross-sectoral issues which have a bearing on this programme area will be included under this section following their discussion, for the 4th session of the PrepCom.}

B. INCREASING ENERGY EFFICIENCY

Basis for Action

11. While there are different ways of defining energy efficiency, it is generally accepted that efficiency in the production, transmission and consumption of energy are key areas to support the overall transition to a more sustainable energy future. Options for improving energy efficiency exist with the potential for producing multiple environmental and economic benefits. Where cost effective, such options should/could be pursued. Actions and technologies should be tailored to the unique social economic and political and physical characteristics of each country. Options which are cost effective in developed countries may not be cost effective in developing countries. [Moreover, even cost effective options can be adopted only where the requisite capital resources are available.] [Nonetheless many cost effective actions exist in all countries which can be adopted immediately.]

Objectives

12. Countries and the [EC][regional integration organizations], international and intergovernmental organizations should/could take steps, and cooperate to ensure that energy efficiency and promotion of less energy intensive technologies are undertaken, taking into account the differences between [developed and developing countries][countries at different stages of development] [, and other differing national circumstances].

[13. [Developed] Countries and the [EC][regional integration organizations], [as well as relevant UN and intergovernmental organizations] should/could increase their institutional capacities and policy focus [to support the management of energy demand and, where appropriate, the reduction of fossil fuel use or its growth per unit of output in the major energy using sectors,] in order to increase output per unit of energy input and reduce the environmental impacts per unit activity.]]

14. Countries, and the [EC][regional integration organizations], [international and intergovernmental organizations, [new] international funding mechanisms] should/could endeavour to help the developing countries [and countries with economies in transition] increase their capacity, to enable them to undertake the necessary technical, research, development and adoption measures.



## 15. Activities

### a. Planning for Energy Efficiency

Planning for energy efficiency should/could, as much as possible, be adopted by countries, as well as by the private sectors taking into account regional and sub-regional energy planning, where appropriate. The use of planning for energy efficiency would be encouraged in all sectors, public and private.

### b. Pricing and other Economic Mechanisms

Governments, in collaboration with United Nations and other international organizations, and, as appropriate with the private sector should/could examine economic and other policies, which may lead to inefficient energy production and use, [such as the incomplete inclusion of the full costs of the environmental impacts caused by the production, manufacture, transmission and consumption of energy in the energy price], and seek to remove policies leading to inefficient energy use through policy measures available to them.

### c. Setting of Energy Efficiency Standards

[Developed]Countries and the [EC][regional integration organizations] should/could strengthen existing and/or create new energy efficiency standards on specific technologies and for economic sectors, as appropriate. These should/could be coordinated at regional levels, where relevant. Such standards should provide ongoing incentives for more efficient energy use, with special attention being paid to the promotion of the development and use of [alternative] and less polluting technologies.

### d. Technical Cooperation on Efficiency Measures

Specific case studies in developing countries could be initiated by INC and other appropriate agencies, on a priority bases, to determine energy consumption patterns, the identifications of areas where energy efficiency improvements are required and the technologies, facilities and cost that are required to improve energy efficiency, bearing in mind the needs to minimize atmospheric emissions.]

### e. Availability of Efficient Energy Technologies

Developed countries should/could cooperate with developing countries [and countries with economies in transition] to enable them to acquire or develop the relevant new, energy efficient technologies, practices and policies[, inter alia through meeting incremental costs].

### f. Education and Awareness

Education and awareness raising programmes concerning the benefits and applicability of energy efficiency measures at the local, national, regional and international levels should/could be introduced or intensified.

### g. Information

Countries, in cooperation with the relevant UN bodies, international and regional and sub-regional bodies, and NGOs, should/could give priority to strengthening their efforts at collecting, analyzing and disseminating relevant information.

### h. Capacity building

Developed Countries, [in cooperation with the relevant United Nations bodies and international donors, and NGOs,] should/could mobilize technical and financial resources, and facilitate technical

cooperation to developing countries [and countries with economies in transition] to reinforce their technical, managerial, planning, administrative [and financial] capacities to develop, and implement efficient energy systems.

#### 16. Means of Implementation

{The cross-sectoral issues which have a bearing on this programme area will be included under this section following their discussion, for the 4th session of the PrepCom.}

#### C. PROMOTING RENEWABLE ENERGY SOURCES

##### Basis for Action

17. The path to increased reliance on renewable, environmentally [safe and sound] energy systems must be pursued.

{Notes: This Programme Area will be further developed as the formal report of the United Nations Inter-governmental Committee on New and Renewable Sources of Energy becomes available by the 4th session of the PrepCom.}

##### Objectives

18. The long-term objective of this programme area is to implement an energy transition from the present polluting and wasteful energy patterns, to one increasingly relying on the application of environmentally sound, renewable energy systems [, which in the long-term should/could provide increased stability and security in energy supply].

19. To facilitate this, countries should/could [set objectives of, and] develop economic and other policies for increasing or keeping high the contribution of renewable energy sources to the supply mix. [Regional and global indicative goals should/could also be set, and national and international indices for reliance on renewable energy sources [applicable to developed countries] should/could be made available.] Countries should/could increase the amount of money devoted to research and development for energy systems using renewable sources. [The long-term objective is to reverse the present situation, where most money is spent in conventional energy systems.]

#### 20. Activities

##### a. Increasing the Contribution of Renewables

Countries [particularly countries with high per capita energy consumption] should/could seek to increase the contribution of renewable sources of energy to the overall supply mix, on the basis of availability, and where justified on the basis of economic cost effectiveness and overall environmental costs.

##### b. Research Priorities on Renewables

[Developed] Countries, [as well as regional and international bodies,] should/could agree to review research priorities [to ensure, where appropriate substantially increased funding to][for] research and development on, and application of renewable sources of energy[, and promote research in developing countries], [as far as possible, research and development should be in the public domain, to facilitate transfer and diffusion of new technologies].

##### c. Increasing the Contribution of Biomass

Developed countries and international organizations should/could cooperate to increase the availability of capacity in developing countries [and countries with economies in transition] to produce

environmentally sound biomass-based fuels, such as fuelwood or methanol, and to promote alternatives, in order to foster development and minimize unsustainable environmental stress and health impacts from the combustion of biomass, recognizing that the issue of energy from biomass is not just a technical issue, but one involving managing local renewable resources in a sustainable manner.

d. Local Application of Renewables

Activities should be directed at the local applications and adaptation of viable (defined locally) renewable energy resources.

e. Education and Awareness

Education and awareness raising programmes concerning the benefits and applicability of renewable energy at the local, national, regional and international levels should/could be introduced or intensified.

f. Information

Countries, in cooperation with the relevant UN bodies, international and regional and sub-regional bodies, and NGOs, should/could give priority to strengthening their efforts at collecting, analyzing and disseminating relevant information.

g. Capacity building

Countries, in cooperation with the relevant United Nations bodies and international donors, and NGOs, should/could mobilize technical and financial resources, and facilitate technical cooperation to developing countries [and countries with economies in transition] to reinforce their technical, managerial, planning and administrative capacities to develop, and implement renewable energy systems.

21. Means of Implementation

{The cross-sectoral issues which have a bearing on this programme area will be included under this section following their discussion, for the 4th session of the PrepCom.}

D. PROMOTING ENVIRONMENTALLY SOUND TRANSPORT SYSTEMS

Basis for Action

22. There is need for a wide-ranging [review of existing transport systems][response], involving vehicle emissions and fuel efficiency, the reorientation and management of traffic and transport systems, and infrastructural issues including land use and urban planning. Special attention should/could be given to public transport (mass transit)[and to means of transport based on low emission energy sources].

Objectives

23. The general objective is to implement measures [particularly in developed countries] to limit further harmful atmospheric emissions from the transport sector, covering road, rail and air transport systems, thereby contributing to the international response to the threat of climate change, as well as reducing local and regional air pollution, taking into account the specific local and national circumstances.

24. An immediate objective is to ensure that developing countries are assisted to develop further their transportation systems to support economic development efforts, in environmentally sound ways[, through the provision of funding for the incremental costs].

25. Special attention should be given to urban and metropolitan areas, where transport produces the majority of atmospheric emissions.

## 26. Activities

Many of the actions in the Programme Areas for the Energy Transition, Energy Efficiency, and Renewable Energy are relevant here. Options include the use of standards, economic instruments, information and awareness raising programmes.

### [a. UN Conference on Sustainable Transport Systems

The United Nations should study the feasibility of convening and the scope of an international conference on transport and the environment. Such a conference could involve governmental representation, relevant international organizations, as well as the private sector, such as automobile manufactures.][The United Nations could initiate the preparation of an international conference on transport and the environment, which could be held in 1994 or 1995. The Conference could also involve the automobile manufacturers with a view to agreements on long-term improvements of fuel performance and emission standards.]

### b. Fuel Performance & Emission Standards

[Developed] Countries and the [EC][regional integration organizations] should/could strengthen existing and/or create new national fuel performance and emission standards[, to be coordinated regionally or globally, as appropriate] [, and to be compatible with internationally accepted criteria and norms].

### c. Use of Economic Incentives

[[Developed] Countries and the [EC][regional integration organizations] should/could introduce economic mechanisms, including pricing which discourage large fuel-consuming and polluting vehicles and encourage [environmentally sustainable transportation systems][alternative fuels and less polluting transportation means]. In particular, they should/could seek to remove possible policy distortions that lead to unsustainable transport systems, and tend to ensure, to the extent possible that transport providers bear the marginal costs associated with the transport, including the social and environmental costs.]

### d. Promotion of Mass Transit

Countries should/could review the means at their disposal to promote more efficient and less polluting mass transit, and[, where financially feasible] prepare appropriate plans to implement these, including through the removal of existing policy distortions.

### e. Education and Awareness

Education and awareness raising programmes concerning transport and the environment at the local, national, regional and international levels should/could be introduced or intensified.

### f. Information

Countries, in cooperation with the relevant UN bodies, international and regional and sub-regional bodies, and NGOs, should/could give priority to strengthening their efforts at collecting, analyzing and disseminating relevant information.

### g. Capacity building

Countries, in cooperation with the relevant United Nations bodies and international donors, and NGOs, should/could mobilize technical and financial resources, and facilitate technical cooperation to developing countries [and countries with economies in transition] to

reinforce their technical, managerial, planning and administrative capacities to develop, and implement sustainable transport systems.

## 27. Means of Implementation

{The cross-sectoral issues which have a bearing on this programme area will be included under this section following their discussion, for the 4th session of the PrepCom.}

{Note: The following sections have not been discussed at the third session of the PrepCom, and consequently the whole text from here to the end is in square brackets.}

### [E. PROMOTING INDUSTRIAL DEVELOPMENT THAT DOES NOT ADVERSELY IMPACT THE ATMOSPHERE

{Note: This section is to be developed by the 4th Session of the PrepCom}

### F. PROMOTING SUSTAINABLE CONSUMPTION PATTERNS AND LIFE STYLES

{Note:

Energy Consumption Patterns and Life Styles, while crucial in the energy sector, is equally important in all the other economic sectors, such as in Agriculture, Industry, Forests, etc., and consequently also needs to be dealt with at those levels.}

## Basis for Action

28. Most of the atmosphere-related environmental problems stem from an overuse of energy by the affluent. This is reflected by the wide variations in per capita energy consumption levels between countries with comparable levels of income, as well as between different socio-economic sectors within countries. There is an urgent need to promote sustainable life styles and energy consumption patterns.

29. At the same time, basic energy service requirements of a majority of the world's population are not being met. There must now be a concerted effort to provide all inhabitants of this planet, on an equitable basis, with sufficient energy services for sustainable development.

## Objectives

30. [Developed] Countries should/could develop [Sufficient][Maximum] Energy Service Requirements, develop plans, incentives, and other means at their disposal to [manage][restrict] energy consumption accordingly.

31. Developing countries should/could accelerate efforts to provide adequate energy services to all their citizens, to ensure sustainable development and decent livelihoods.

## 32. Activities

### a. [Managing][Restricting] Energy Consumption

[Developed] Countries should/could promote sustainable life-styles in all areas of energy consumption, inter alia, through research and study of possible economies and by incorporating global environmental costs into energy prices.

### b. Studies on Energy Use and Sustainable Development

Relevant UN bodies should/could conduct and encourage studies on sustainable life-styles in relation to energy consumption, including studies on [Maximum][Sufficient] Energy Service Requirements.

c. Indicators of Energy Service Requirements

Countries, especially the developing countries should/could develop indicators for Basic Energy Service Requirements, make them an integral part of conditions for sustainable livelihoods, and develop plans for everybody to have access to these. Countries should/could also develop indicators for Sufficient Energy Service Requirements, and develop plans to not go beyond these. These indicators are to be used for domestic purposes only, as their inter-country comparison may be meaningless.

d. Consumption Patterns

In addition to energy efficiency measures, countries could promote less energy intensive life styles and economic activities, to ensure that energy efficiency gains are not offset by increased activities.

e. Promotion of Waste Minimization

[Developed] Countries and the [EC][regional integration organizations] should/could support initiatives promoting clean technologies, waste minimization and recycling with a view to reducing pollution, including greenhouse gas emissions.

f. Global Ceiling on Per Capita Energy Consumption

Negotiations should/could be held in the appropriate UN forum to conclude a global agreement fixing a mutually agreed common ceiling on per capita energy consumption/ carbon dioxide emissions therefrom, applicable uniformly to all countries.

33. Means of Implementation

(The cross-sectoral issues which have a bearing on this programme area will be included under this section following their discussion, for the 4th session of the PrepCom.)

G. ADDRESSING THE UNCERTAINTIES: ATMOSPHERE

Basis for action

34. Substantial knowledge of the environmental and development issues related to the atmosphere has been gained through international cooperation and exchange of data and information to all nations. However, concern with climate change, air pollution, and ozone depletion has created new demands for scientific and economic information. Better understanding of physical, chemical and biological properties of the affected ecosystems, as well as health impacts are needed, through expanded and strengthened research programmes, through comprehensive observing systems to detect trends, variations and changes in these ecosystems in a timely manner. Better understanding of the economic, social and political implications of changes, of the effects of these changes, and of possible response to those changes are also needed.

Objectives

35. Countries and the [EC][regional integration organizations] should/could agree to promote cooperation in conducting research to improve the understanding of the physical, chemical, biological, economic and social processes that influence and are influenced by the Earth's atmosphere global, regional and local scales.

36. Countries should/could agree to promote developing and maintaining systematic observations of ecosystems as well as health impacts affected by human activities in the energy, industry and transport sectors, and to exchange these data and information to the fullest extent possible.

37. Countries and regional economic integration organizations, in cooperation with intergovernmental and international organizations, should/could cooperate with developing countries and with economies in transition in building their capacity to conduct this research and data collection, and to participate in the exchange of the resulting information.

38. Activities

a. Identification of Priority Research Areas

The relevant United Nations bodies, in cooperation with Governments, industry, research institutions, and NGOs and within the framework of existing research programmes, such as the WCRP and the IGBP should/could identify priority areas of scientific, technical, and socio-economic research related to the critical linkages between the environmental and development issues arising in the energy, transport and industry sectors, as they relate to the atmosphere.

b. Information Sharing

Countries should/could promote the full and open exchange of data and information.

c. Early Detection Systems

The relevant United Nations bodies, in cooperation with countries and NGOs should/could promote cooperation in the development of early detecting systems concerning changes in the atmosphere, resulting from impacts from energy, industry and transport.

39. Means of Implementation

{The cross-sectoral issues which have a bearing on this programme area will be included under this section following their discussion, for the 4th session of the PrepCom.}}

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end

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PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Third Session  
Geneva, 12 August - 4 September 1991  
Working Group I  
Agenda Item 2

PROTECTION OF THE ATMOSPHERE

Decision Proposed by the Chairman

Protection of the Atmosphere: Options for Agenda-21

The Preparatory Committee.

Having considered documents A/CONF.151/PC/60,  
A/CONF.151/PC/42/Add.1, and A/CONF.151/PC/WGI/L.25/Rev.2,

Recalling decision 2/8, in particular paragraph (f),

1. Notes the following:

(a) that document A/CONF.151/PC/WGI/L.25/Rev.2  
(contained in an annex to this document) contains the  
following programme areas:

- A. PROMOTING THE ENERGY TRANSITION
- B. INCREASING ENERGY EFFICIENCY
- C. PROMOTING RENEWABLE ENERGY SOURCES
- D. PROMOTING TRANSPORT SYSTEMS WHICH ARE SPECIFICALLY  
SAFE AND ENVIRONMENTALLY SOUND

(b) that the proposals contained in Programme Areas A-D  
could be a basis for further discussions/negotiations. A  
number of points will, however, need detailed  
consideration at the next session of the Preparatory  
Committee, particularly those in brackets.

(c) Programme areas on Industry, agriculture and  
forestry, consumption patterns and life styles and  
uncertainties with regard to the atmosphere have not been  
considered in detail during this session, even though a



number of comments were made in the course of the discussion. Negotiation of these programme areas will take place at the fourth session.

(d) delete

(e) It is understood that final agreement on the contents of document A/CONF.151/PC/WGI/L.25/Rev.2 will be dependent on a satisfactory outcome of the negotiation of Agenda-21 as a whole. Further, in all areas under consideration by the INC on climate change, finalization of the formulation of Agenda-21 will have to reflect the outcome of the negotiation of a Framework Convention on Climate Change.

2. Requests the UNCED Secretary General, that in addition to the energy and transport sectors, proposals be also presented for Basis for Action, Objectives and Activities for the areas mentioned under paragraph 1.(c) above, for the fourth session.

3. Further requests the UNCED Secretary General to integrate in the proposals provisions for means of implementation, in accordance with the general decision on Agenda-21.

4. Invites governments to submit any additional comments to document A/CONF.151/PC/WGI/L.25/Rev.2 in writing to the Secretariat of UNCED before 1 October 1991.

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## **FORESTS**

### **SUMMARY**

The issue of forests once again proved to be the major focus of attention in Working Group I during PrepCom III, although the debate was much less polemical than in previous PrepComs. The tone of the debate was aided by the confirmation in the London Summit Declaration of the consensus reached at the end of the PrepCom II, that UNCED would work for now towards an authoritative statement of principles on forests. The possibility remains open that work could begin towards a global forest convention after UNCED. A first reading of a draft statement of principles was completed by the end of PrepCom III. More work will be required at PrepCom IV to remove many brackets and improve the internal structure of the text. PrepCom IV will also have to review the action plan for forests that leaders will approve in Rio, as part of Agenda 21.

### **Documentation**

- |                         |   |   |
|-------------------------|---|---|
| A/CONF.151/PC/64        | - | Background Paper: Conservation and Development of Forests                     |
| A/CONF.151/PC/6         | - | Guiding Principles for a Consensus on Forests                                 |
| A/CONF.151/PC/42/Add.3  | - | Options for Agenda 21   |
| A/CONF.151/PC/WG.I/L.22 | - | Draft Guiding Principles proposed by Ghana (on behalf of G-77)                |
| A/CONF.151/PC/WG.I/L.24 | - | Draft Guiding Principles proposed by Canada                                   |
| A/CONF.151/PC/WG.I/L.35 | - | Decision on Forests submitted by Working Group I chairman Bo Kjellen (Sweden) |

- A/CONF.151/PC/WG.I/CRP.14/Rev.1 - Draft on Contact Group Discussion submitted by the Vice-Chairman, Mr. Charles A. Liburd (Guyana)
- Canadian Intervention on Guiding Principles Canadian Intervention on Agenda 21

### PREPCOM DISCUSSION

Canada's objectives on forests at PrepCom III in Geneva were twofold. The first was to work towards approval at UNCED of an "Authoritative Statement of Guiding Principles" on the management, conservation, and sustainable development of forests, as well as a commitment by world leaders to begin negotiation after UNCED of a legally-binding convention on forests. The second was to develop an Agenda 21 on Forests that will merit a high level of political commitment from leaders in Rio. The main elements of the Canadian position on forests for Agenda 21 include: 1) negotiation of a global forest convention; 2) improving international institutional arrangements for forest activities including reform of TFAP, renegotiating the ITTA and potentially consideration of a new world forest organization; and, 3) country commitments to targets for "greening the world" by maintaining existing forests and creating new ones.

### Guiding Principles

The first procedural problem at this Prepcom was to achieve an agreed text on which to begin work negotiating a statement of principles on forests. The UNCED secretariat tabled a paper outlining possible elements for a statement of principles. The US, Germany, France and Canada all arrived at the prepcom with our sets of principles; and Malaysia had developed a package from a developing country perspective. After the general statements were delivered, the G77 tabled its own draft set of principles. Following two days of procedural discussions, this text was accepted as a basis for discussion, following a series of amendments adding new principles to the text, largely moved by Canada drawing on language from the Secretariat paper.

The group then spent two more weeks slowly making its way through the negotiating text. Large number of developed and developing country delegations actively participated in the debate, including US, Netherlands (for the EC), UK, Japan, Norway, Sweden, Finland, Australia, New Zealand, USSR, Malaysia, China, India, Kenya, Uganda, Zambia, Brazil, Bolivia, and Mexico.

The first reading of the proposed Guiding Principles on the Management, Conservation, and Sustainable Development of Forests was finally completed on Tuesday, August 27. On Thursday, August 28th, the Secretariat released a typed version in which Chairman Liburd (Guyana) rearranged the text into four subject areas. Malaysia objected to this subdivision of the text, on the grounds that it would move the draft principles closer towards a prototype for future forest convention, and they were subsequently dropped.

Although it had been intended that the typed text would be subject to a second reading, Working Group I ran out of time for this task. At India's request, delegations were permitted to submit additional principles into the text up until the end of the PrepCom, which by agreement will be treated as if they were in brackets. The text contained in CRP/14/Rev.1 will be basis for negotiations on forests at the start of PrepCom IV.

### Agenda 21

Though of less importance in the forests discussions, Agenda 21, the action plan for the 21st Century for all the issues being considered by the UNCED, also must address forests. As Agenda 21 is to be approved by world leaders at Rio, the forests section ought to be able to claim appropriate prominence in this document. Unfortunately, the UNCED Secretariat draft was a rather conventional process-oriented recital of the requests national forest services make every year - more inventories, more research, more planting, etc. (i.e.: more of the same). It lacked political appeal and was an agenda written by foresters for foresters.

For Agenda 21 on forests, Canada is interested in promoting agreement on voluntary flexible targets regarding the scope and quality of forest cover, which could be set on a national basis by national governments. We are also interested in improving national and global monitoring systems for assessing the state of forests. This would be, in general, to review progress in conserving and sustainably developing forests. Particularly, though, it would enable measurement of governments' successes in meeting their self-imposed targets. Furthermore, Canada is advocating that states have a responsibility to manage the export of their products in a manner that promotes the sustainable development of their forests.

Canada led off the debate on Agenda 21 and argued that we "need to present Agenda 21 in terms that attract the attention of the world's leaders and engage them to make a strong political commitment for the conservation and sustainable development of the world's forests." The core of our proposal for voluntary country targets for overall forest cover, permanent forest cover and protected forests was outlined on page four of our intervention.

There was no consensus in support of the UNCED Agenda 21 draft. The European Community, the USA, Japan and Canada have developed separate proposals for improving Agenda 21 and we expect that other nations will also wish do so.

We had hoped to have the opportunity to offer our proposals for inclusion in the PrepCom III decision. Once again, however, no time remained to discuss Agenda 21 in detail,

and in the final decision countries were given until October 1, 1991 to submit proposals for Agenda 21. The Canadian delegation will submit its views on Agenda 21 following further analysis in Ottawa.

### OUTCOMES AND ASSESSMENT

The draft of the forest principles contained in CRP.14/Rev.1 has eight preambular paragraphs and seventeen paragraphs under the heading of "Principles/Elements". The following is a brief summary of the main elements in each paragraph. (Since the text is in many places repetitious and contains unrelated elements in the same paragraph, the following notes do not attempt to identify all of the important points in the text.)

The preambular paragraphs deal the purpose and scope of the forest principles.

Paragraph c) repeats the conclusion of the PrepCom II decision on forests that "The UNCED process is the most appropriate forum for conclusive decisions on pertaining to a global consensus on forests .." The EC moved the addition, in brackets, after this phrase "[which should for the basis for [any subsequent preparations and adoption of a legal instrument on forests]...", in order to lay down a marker for future discussion of the convention issue.

Under the Principles/Elements, paragraphs 1 deals with sovereignty over forest resources and states rights to determine the development of forests and principles of burden sharing in the protection of forests.

Paragraph 2 contains a definition of forests. It affirms states' rights to determine the objectives of their forest management policies. It also includes Canadian proposals which address the need for popular participation in decision making over forest policies and the need for governments to provide a timely and accurate flow of information on forests as a basis for public understanding and informed decision-making.

Paragraph 3 addresses the broad aims of national forest policies, and includes the Canadian proposal that "Each state has ... the responsibility to establish plans [including individual targets and timeframes] for the management, conservation and sustainable development of all types of forests..".

Paragraph 4 deals with the ecological functions of forests and their role as sources of biodiversity and biotechnology.

Paragraph 5 deals with the social role of forests, including their importance for indigenous people and the role of women in forest management.

Paragraph 6 addresses the role of forests as an energy source. It also includes a sub-principle dealing with the contributions made by plantation forests, introduced by New Zealand.

Paragraph 7 covers the economic roles of forests, and includes proposals dealing with economic compensation for forest users for forests protected to meet environmental needs.

Paragraph 8 addresses broad objectives for maintaining and increasing forest cover, as well as a number of unrelated concerns, including the need for appropriate institutional arrangements on forests, and the sharing of profits from the genetic resources of forests.

Paragraph 9 deals with the relationship between the poverty, indebtedness, negative resource flows from developing countries and the causes of deforestation.

Paragraphs 10 and 11 deal with principles for providing financial resources to compensate developing countries for protecting their forests.

Paragraph 12 covers the purposes for technology transfer to improve the conservation of forests.

Paragraph 13 covers the needs for scientific research, monitoring and information exchange on forest management and the importance of local knowledge regarding forest management.

Paragraphs 14 and 15 deal with principles for trade and pricing of forest products.

Paragraph 16 addresses control of pollutants that affect forests.

Paragraph 17 states that the role of forests in the carbon cycle should be recognized in national forest plans.

Overall, as a result of PrepCom III, the forest issue in UNCED is now on a productive track and will yield a valuable set of forest principles for leaders to approve in Rio. The challenge for delegations at PrepCom IV, however, will be to inject enough substantive commitments into the forest principles, and even more so

into Agenda 21, to meet the very high public expectations for action at UNCED on this issue.



UNCED 3rd PREPCOM  
LAND RESOURCES: FORESTS

CANADIAN INTERVENTIONS

"TOWARDS A GLOBAL CONSENSUS FOR THE CONSERVATION  
AND SUSTAINABLE DEVELOPMENT OF ALL TYPES OF FORESTS"

Delivered by Dr. J.S. Maini  
Assistant Deputy Minister, Forest Environment  
Department of Forestry, Ottawa

A. Intervention on Guiding Principles  
August 14, 1991

Mr. Chairman:

Thank you for this opportunity to present the views of the Canadian delegation on the issue of guiding principles on the conservation and sustainable development of forests. Our views have been evolving since we first discussed this issue at the first meeting of this Preparatory Committee.

At the second meeting of this Committee, significant progress was made by the agreement to work towards the adoption of an "authoritative statement of principles for the management, conservation and sustainable development of the world's forests" while continuing the important analysis of a wide range of forest issues. The extent of international cooperation is reflected in the success of the technical workshop on global options for forest management in Bangkok, generously hosted by the Government of Thailand and the very timely initiative of the Government of China in hosting the ministerial meeting of developing countries in Beijing which recognized the importance of global action to enhance forests.

Principles of Forest Management

Mr. Chairman:

The Canadian delegation wishes to congratulate the UNCED Secretariat on the quality and extent of the work that has been accomplished since the last meeting of the PrepCom. The proposal on an Authoritative Statement of Principles is to be commended. It has served to focus and encourage the efforts of individual countries and NGOs in preparing for this meeting. These efforts, Mr. Chairman, have been impressive. Several countries and a number of NGOs have developed proposals for guiding principles. A study of these documents shows that a clear convergence of views is developing. Canada, too, has prepared a discussion paper that describes our views as to the form and basic content that the statement of principles might take. We have based our paper on the work of the UNCED Secretariat which provides an excellent basis to build a consensus on an authoritative Statement of Guiding Principles.

I would like to make a few proposals on the guiding principles. In formulating an authoritative statement, it would be useful to organise it into four sections - a preamble; guiding principles; areas for international cooperation; and, institutional issues.

The preamble could consist of well accepted, undisputed, economic and scientific elements in the UNCED paper.

The second section on guiding principles should guide our national policies and activities and international cooperation. In order to give force to this statement the Canadian delegation feels that the guiding principles should be as few as possible and expressed in clear, concise and crisp language. In the view of the Canadian delegation, sovereignty and responsibility are two fundamental principles that must be recognized.

The guiding principles could be followed by a third section identifying areas of international cooperation in support of the principles.

The fourth section could identify several institutional questions that need to be examined to facilitate global acceptance and implementation of an agreed statement of principles and to provide for periodic assessment of the state of the world's forests. This latter activity will be important to measure the effectiveness of our policies and programs.

Using this conceptual framework, the Canadian delegation has attempted to structure the ideas in the UNCED document along these lines. Copies of the Canadian paper on guiding principles, entitled "Towards a Global Consensus for the Conservation and Sustainable Development of all Types of Forests World-Wide", are available at the back of the conference room in English, French, Spanish and Portuguese. We hope that our paper will contribute to the exchange of ideas leading to a well structured authoritative statement of principles for approval by the heads of world governments gathered at Rio de Janeiro next June.

### The Way Ahead

Looking ahead, the task of developing an authoritative statement of principles for the management, conservation and sustainable development of all the world's forests is momentous and we must succeed. If we do, this process of international cooperation leading to Brazil in June 1992 and beyond will long be remembered as one of the finest achievements of the international community. Rio '92 provides an unprecedented window of opportunity to lay the foundation for the conservation and sustainable development of forests, world-wide.

Thank You, Mr. Chairman

B. Intervention on Agenda 21  
August 15, 1991

Mr. Chairman:

Thank you for this opportunity to provide the views of the Canadian Delegation on Agenda 21 and related issues.

Institutional Arrangements

Clearly there is a wide range of forest-related issues that need to be addressed by the world community at the national, bilateral and international levels. At present a large number of international organizations are involved in these issues. For example, a great deal, but not all of the necessary work is being undertaken by the FAO; development assistance is being addressed by the Tropical Forestry Action Programme; trade in tropical timber is dealt with by the ITTO; northern countries are beginning to work together on the study of boreal forests; and the countries sharing the Amazon Basin are engaged in similar cooperation.

However, existing institutions are currently unequipped to deal with all the issues identified by this PrepCom and by the UNCED Secretariat. Indeed Paragraph 7 of the Options for Agenda 21 identifies this state of affairs. The Preparatory Committee may well wish to examine the most appropriate institutional arrangements to meet the needs of the world's forests. If this is the case, then Working Group I will wish to refer the subject of forest institutions to Working Group III for examination and action.

Linkages to other International Initiatives

The linkages to other international initiatives dealing with forests is another area of increasing concern to us. We are aware that the climate change convention and the biodiversity convention will both necessarily deal with certain aspects of forests. This is another reason to develop guiding principles on the conservation and sustainable development of forests. In order to coordinate work on forests with that of biodiversity and climate change, we will need a common vocabulary, definitions and principles. This will be particularly important if the principles on conservation and sustainable forest management, to be approved at UNCED, lead subsequently to the negotiation of an international convention on forests.

Mr. Chairman, the Canadian delegation would request the UNCED Secretariat to specifically address this issue in the papers to be prepared for the Fourth PrepCom.

## Agenda 21

Finally, Mr. Chairman, the Canadian delegation would like to offer some specific ideas for inclusion in the draft for Agenda 21. While the draft before us contains many worthwhile ideas, it represents on the whole a fairly conventional agenda for action on forests, and outlines activities which national forest departments around the world have been attempting to pursue for many years. The Canadian delegation believes that Agenda 21 should bring some fresh political impetus for action on forests by setting a few global goals which our leaders could endorse at UNCED.

We would like to propose a possible approach to setting global goals on forests which is based on respect for national sovereignty, while recognizing that the international community as whole needs to do a better job of protecting our forest resources. This approach would be to formulate under Agenda 21 one or more agreed types of targets for the extent and quality of forest cover which individual governments could apply in their national land use planning. National governments would then set a quantitative level for such targets, depending on each country's own development needs and the current state of its forests. This, Mr. Chairman, would allow us to use Agenda 21 to move towards the global goal of increasing the amount of forests worldwide - while leaving national governments the task of setting their own standards of performance.

The question arises: what types of targets for forests should we set for ourselves under Agenda 21? For purposes of discussion, we would propose three types of targets, moving from the most to the least extensive.

The first target, and the most extensive, could be "total forest cover", embracing all kinds of forests - natural, replanted and new plantations.

The second target could be "permanent forest cover" - embracing those areas of a country which have been designated through national land use policies to be permanently kept under forest cover, rather than open for conversion to other kinds of land use. A number of delegations have already referred to the need for this action in their interventions on guiding principles. This target would include forest land slated for commercial exploitation under management schemes that permit regeneration of the forest, in order to maintain its status as productive forest land.

The third target, and the least extensive could be "protected natural forests", embracing all those natural forests protected from most forms of commercial exploitation in order to conserve their biodiversity and other ecological values.

A final component of this approach would be to strengthen existing global forest assessment programs, so that both national governments and the international community could review

periodically progress made towards reaching these global goals - and set priorities for national and international action accordingly.

Mr. Chairman, I emphasize that using this schema of targets, governments could set their own goals for maintaining or increasing the amount of protected forest, permanent forest or total forest cover to meet the diverse objectives outlined by UNCED's statement of principles. Assisting developing countries to meet or exceed these national goals could then be a major focus for future assistance in the forest sector. The advantage of this approach is it establishes a common framework which permits comparison between countries with very different amounts of forest cover and very different needs and capacities to protect it.

In conclusion, Mr. Chairman, we need to present Agenda 21 in terms that attract the attention of the world's leaders and engage them to make a strong political commitment for the conservation and sustainable development of the world's forests.

Thank You, Mr. Chairman

August 30, 1991

AGENDA 21 - FORESTS

**Preliminary Canadian Proposals for Agenda 21 Programme Areas**

The Canadian Delegation believes that Agenda 21 objectives should consist of only a small number of direct and dramatic proposals designed to not only enhance world forests but capture our national leaders' imagination and obtain their long-term commitment. The proposed actions should be consistent with the principle of sovereignty, and be primarily in the socio-economic and environmental interest of individual states.

- A. CONTRIBUTE TO THE GREENING OF THE WORLD BY COMMITTING TO SPECIFIC FOREST COVER BY 2000 - BOTH WORKING FOREST AND PROTECTED UNIQUE AND REPRESENTATIVE FORESTS TYPES - AND TO REPORT PROGRESS THROUGH PERIODIC REPORTS ON THE STATE OF FORESTS WORLD-WIDE.
- B. REVIEW AND REVITALIZE THE SYSTEM OF NATIONAL, REGIONAL AND WORLD INSTITUTIONS AND PROGRAMS DEALING WITH FORESTS.
- C. STRENGTHEN FOREST RESEARCH, PARTICULARLY ON THE MANAGEMENT OF FOREST ECOSYSTEMS FOR MULTIPLE VALUES AND REHABILITATION OF DEGRADED FOREST LAND.
- D. PROMOTE INDUSTRY AND TRADE IN PRODUCTS DERIVED FROM SUSTAINABLY MANAGED FOREST RESOURCES.
- E. PROVIDE OPTIONS AND OPPORTUNITIES FOR INDIGENOUS AND OTHER FOREST COMMUNITIES TO GAIN THEIR LIVELIHOOD IN WAYS THAT ENHANCE FOREST ECOSYSTEMS RATHER THAN DEGRADING THEM.
- F. AGREE THAT THE GUIDING PRINCIPLES, TO BE ADOPTED AT UNCED, SHALL CONSTITUTE A DEPARTURE POINT FOR NEGOTIATION OF A LEGALLY BINDING CONVENTION ON THE CONSERVATION AND SUSTAINABLE DEVELOPMENT OF FORESTS WORLD-WIDE, WITH COMMITMENTS THAT WOULD BE VARIABLE ON THE BASIS OF 'PLEDGE AND REVIEW'.

AGENDA 21 - FORESTS

Preliminary Canadian Proposals for Agenda 21 Programme Areas

The Canadian Delegation believes that Agenda 21 objectives should consist of only a small number of direct and dramatic proposals designed to not only enhance world forests but capture our national leaders' imagination and obtain their long-term commitment. The proposed actions should be consistent with the principle of sovereignty, and be primarily in the socio-economic and environmental interest of individual states.

A. CONTRIBUTE TO THE GREENING OF THE WORLD BY COMMITTING TO SPECIFIC FOREST COVER BY 2000.

We would propose three types of targets, moving from the most to the least extensive.

1. The first target, and the most extensive, could be "total forest cover", embracing all kinds of forests - natural, replanted and new plantations.
  - a) Planting programs.
  - b) Rehabilitation of degraded lands.
2. The second target could be "permanent forest cover" - embracing those areas of a country which have been designated through national land use policies to be permanently kept under forest cover, rather than open for conversion to other kinds of land use. A number of delegations have already referred to the need for this action in their interventions on guiding principles. This target would include forest land slated for commercial exploitation under management schemes that permit regeneration of the forest, in order to maintain its status as productive forest land.
3. The third target, and the least extensive could be "protected natural forests", embracing examples of representative and unique forest types protected from commercial exploitation in order to conserve their biodiversity and other ecological values.
4. Report progress through periodic reports on the state of forests world-wide.
5. Enabling Mechanisms.

B. REVIEW AND REVITALIZE THE SYSTEM OF NATIONAL, REGIONAL AND WORLD INSTITUTIONS AND PROGRAMS DEALING WITH FORESTS.

1. Improve co-ordination of forest-related activities world-wide through appropriate institutional arrangements.
2. Support the ongoing review and revitalization the Tropical Forestry Action Programme (TFAP).
3. Ensure that the renegotiation of the International Tropical Timber Agreement (ITTA) clarifies its role and clearly reflects:
  - a) the changes in the world attitude towards tropical forests; and,
  - b) that the ITTO is committed to sustainable forestry.
4. Enabling Mechanisms.

C. STRENGTHEN FOREST RESEARCH, PARTICULARLY ON THE MANAGEMENT OF FOREST ECOSYSTEMS FOR MULTIPLE VALUES AND REHABILITATION OF DEGRADED FOREST LAND.

1. Ensure that national and international research capacities are improved and expanded, with particular emphasis on enhancing our predictive capacities on the consequences of human interventions in order to practice an "anticipate and prevent" rather than "degrade and cure" approach.
2. Ensure that all countries have the capacity to prepare and disseminate timely, accurate and complete forest ecosystem reports, including non-timber forest values as well as timber values.
3. Enabling Mechanisms.

D. PROMOTE INDUSTRY AND TRADE IN PRODUCTS DERIVED FROM SUSTAINABLY MANAGED FOREST RESOURCES.

1. Through renegotiation of the ITTA.
2. Through voluntary adoption of internationally accepted criteria for sustainable forest management.
3. Enabling Mechanisms.



E. PROVIDE OPTIONS AND OPPORTUNITIES FOR INDIGENOUS AND OTHER FOREST COMMUNITIES TO GAIN THEIR LIVELIHOOD IN WAYS THAT ENHANCE FOREST ECOSYSTEMS RATHER THAN DEGRADING THEM.

1. Encourage indigenous activities supportive of their way of life and of stewardship of forests.
2. Enabling mechanisms.

F. AGREE THAT THE GUIDING PRINCIPLES, TO BE ADOPTED AT UNCED, SHALL CONSTITUTE A DEPARTURE POINT FOR NEGOTIATION OF A LEGALLY BINDING CONVENTION ON THE CONSERVATION AND SUSTAINABLE DEVELOPMENT OF FORESTS WORLD-WIDE.

1. World Leaders at UNCED would approve the establishment of an Intergovernmental Negotiating Committee (INC).
2. The INC would be under ECOSOC and, at the 1992 UN General Assembly, ECOSOC would determine a timetable and establish a secretariat.
3. Though the convention would be legally binding, commitments would be variable and voluntary on the basis of 'pledge and review'.
4. Enabling Mechanisms.

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## General Assembly

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PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT

Third session

Geneva, 12 August-4 September 1991

Working Group I

Agenda item 3 (a)

LAND RESOURCES: DEFORESTATION

Revised draft decision submitted by the Chairman

### Forests

The Preparatory Committee,

Having considered documents A/CONF.151/PC/64, A/CONF.151/PC/65,  
A/CONF.151/42/Add.3 and decisions 1/14 and 2/13 on forests,

1. Recalls

(a) its decision 2/13,

(b) that there has been in-depth discussion at this session on such a text as contained in document CRP.14 and that comments or additions submitted by Governments to the Chairman during the third session will be included in CRP.14/Rev.1, which will be considered at the fourth session of the Preparatory Committee;

2. Notes that document A/CONF.151/PC/42/Add.3 on Agenda 21 on forests has not been considered in detail by the Preparatory Committee;

3. Invites Governments to submit to the secretariat of the Conference not later than 1 October 1991 further proposals for Agenda 21 on forests. These proposals and the views expressed at the third session of the Preparatory Committee will be taken into account in a document to be prepared by the secretariat for the fourth session of the Preparatory Committee.

4. Decides that, at the fourth session of the Preparatory Committee:

(a) negotiations will take place on a set of authoritative principles on the management, conservation and sustainable development of forests, and

(b) a decision be made on the contents of Agenda 21 with regard to forests against the background of the secretariat document mentioned in paragraph 3 above.

5. Requests the Secretary-General of the Conference to integrate in the proposals under paragraph 3 above, provisions for means of implementation in accordance with the general decision of the Preparatory Committee on Agenda 21.

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3 September 1991  
Original: ENGLISH

PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT

Third session  
Geneva, 12 August-4 September 1991  
Working Group I  
Agenda item 3 (a)

LAND RESOURCES: DEFORESTATION

A non-legally binding authoritative statement of principles  
for a global consensus on the management, conservation and  
sustainable development of all types of forests

Draft on Contact Group Discussions submitted by the Vice-Chairman,  
Mr. Charles A. Liburd (Guyana)

PREAMBLE

(a) The subject of [ forests and ] [ forestry ] is related to the entire gamut of environmental and development issues and opportunities including [ poverty and ] [ the right to ] economic development.

(b) 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 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.

(c) The UNCED process 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 ] ] .

(d) The guiding objective of these principles is to achieve the management, conservation and sustainable development of forests, and to provide for their multiple and complementary uses.

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Underlined text denote proposals additional to CRP/14 received by the Secretariat up to 3rd September 1991

(e) [ These principles should apply to all existing [ and future] forests: austral, boreal, temperate, sub-tropical and tropical. ]

(f) [ The global consensus on forests should complement and be [co-ordinated] [consistent] with other international initiatives with implications for aspects of forestry, notably the climate change and biodiversity conventions, and existing conventions or treaties.]

(g) [ All types of forests embody complex and unique ecological processes which are the basis for their present and potential capacity to provide resources to satisfy human needs and as such their sound management and conservation is of concern to the governments of the countries in which they located. ]

(h) Forests are essential to the survival of life. States have always modified their forest areas in order to meet their needs. The extensive historical deforestation by developed countries contributed to their economic growth. Deforestation continues because the causative factors are not easily eliminated as they are primarily related to the unsustainable consumption patterns in developed countries. Inadequate prices for forest produce below the full replacement cost, debt burden and poverty of developing countries. Developed countries have the main responsibility for restoring and maintaining an adequate level of global forest cover. This responsibility applies both within their territory as well as to compensate efforts by developing countries without any conditionality.

## 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."

(b) Forest resources and forest lands should be managed in such a manner as to meet human needs for present and future generations.

(c) [ 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 ].

(d) States have the right to develop their forests in accordance with their needs and level of socio-economic development.

2.

(a) [ Forests include [all types of ligneous vegetation including trees and shrubs, either in large or isolated stands] areas under permanent vegetative cover, ecosystems and may house human settlements]. States have the [sovereign] [inalienable] right to [determine the ownership pattern and] utilize, manage and develop their forests in accordance with their development needs and on the basis of national land-use policies consistent with sustainable development and legislation including the need to convert such areas for other uses within the overall socio-economic development plan based on rational land-use policies.]

(b) Forests should be sustainably managed to meet present and future social, economic, ecological, cultural and spiritual human needs for wood and wood products, water, food, fodder, medicine, fuel, shelter, recreation, habitats for wildlife, landscape diversity and other minor forest products. Forests should be protected against harmful effects of air pollution, fires, pests and diseases, [ to the extent that is ecologically and economically feasible].

(c) [The provision by governments of the] timely and accurate flow of information on forests and forest ecosystems is essential for public understanding and informed decision making and should be ensured.

(d) Governments should ensure and promote the popular participation of interested parties including local communities, industries, labour, non-governmental organizations and individuals, forest dwellers and women in the development, implementation and planning of national forest policies [ and more generally in the decision making process for the conservation and sustainable development of forests][as this] is essential [to ensure that these truly respond to local, national and international requirements.]

3.

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

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

(c) [ Adequate international and national regulations should be introduced in order to avoid foreign or national exploitation which lead to deterioration or destruction of forests. ]

(d) Each state has [should ] the responsibility to establish plans [ including individual targets and time frames ] for the management , conservation and sustainable development of all types of forests, according to national needs and circumstances to achieve country specific objectives and to focus international cooperation.

4.

The vital role of all types of forests in maintaining the ecological balance at local, national, regional and global levels, in particular their role in protecting fragile ecosystems, watersheds and freshwater resources, and as rich storehouses of biodiversity and sources of genetic material for biotechnology products, should be recognized and inform national and international action on sustainable development .

5.

(a) The wide range of social and economic functions of all types of forests including use by forest dwellers, local communities and indigenous people who sustain forest resources, should be respected and recognized and taken into account in national policies. [ Appropriate conditions for local communities to perform economic activities and [ achieve and maintain adequate levels of livelihood, social well-being and cultural identity ] ] should be promoted.

(b) National forest policy should recognize and respect the rights and interests of forest dwellers, local communities and indigenous people who rely on forests to maintain their livelihood, social organization and cultural identity, as well as their need to have an economic stake in forest use.

(c) The full participation of women in all aspects of management, conservation and sustainable development of forests should be actively promoted [ especially in developing countries].

(d) Forest contribute to meeting basic economic needs including requirement of wood, food security, and alleviation of poverty. Afforestation and reforestation also provides a potential for employment generation.

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 in ways that [ avoid ] [ minimize ] deforestation and degradation of forests [ through sustainable forest management 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) The demands for fuelwood for household and industrial needs should be met in ways that avoid deforestation and degradation of forests.

(c) All forests provide a broad range of goods and services and [ any ] decisions taken on the use development and conservation of forest resources, forest areas should be based on a full economic accounting, assessment and valuation of these goods and services as well as the environmental costs and benefits.

(d) It is recognized that plantation forestry, while assisting regional employment and development, offers a sustainable and environmentally sound source of renewable energy and industrial raw material, watershed protection and an effective carbon sink.

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 particularly in industrialized countries, [ the eradication of poverty and the promotion of food security in developing countries ]].

(b) National and international policies and programmes aimed at forest conservation and sustainable development should take fully into account environmental benefits of forests and all aspects related to extraction via conversion, distribution, marketing, demand, consumption, recycling and final disposal of forest products. as well as cultural, social and environmental benefits of forests.

(c) 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 forests for the purpose of conservation.

(d) Any losses incurred by traditional users in reserving certain forests or modifying existing forest land use in meeting environmental need should be compensated.

8.

(a) Efforts should be undertaken towards the greening of the world [ jointly and individually ] by all countries [ particularly in developed countries, which have in the past so destroyed their extensive forests and continue to do so by acid rains [ and the increase in the production of green house gases ], to increase their forest cover ] through reforestation and afforestation [ and conservation of existing forests ], as well as retaining existing forest cover where appropriate.

(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 conservation and sustainable development [ in developing countries ] [ should be supported by international financial and technical cooperation ] [ requires provisions of financial and technical support ].]

(d) [ Appropriate international institutional arrangements, [ building on ] [ taking into account ] those organizations and mechanisms already in existence, [ should facilitate ] [ the implementation of national policies and programmes ] [ of the global consensus, and supervise ] provide mechanisms to [ follow ] [ monitor ] and participate in its



implementation, to assess progress and to co-ordinate international action.]

(e) [ Forest management and utilization of forests should be carried out in accordance with [internationally accepted] environmentally sound [ national ] guidelines which include effective policies for regeneration ]

(f) [ Plans for forest management should be integrated with management of adjacent areas, so as to maintain ecological integrity and sustainable productivity.]

(g) [ National policies and legislation aimed at management, conservation and development of forests should include the protection of representative and unique examples of native forests [cultural, historical, religious and other unique valued forests of national importance] .]

(h) [Availability of biological resources including genetic material shall be with due regard to sovereign rights of the countries where the forest are located and sharing of technology and profits of bio-technology products, for example pharmaceutical, derived from these resources. ]

(i) [ National policies should ensure that environmental impact assessments are carried out where policies or programmes pose major potential threats to important forest areas. ]

9.

(a) [ The external indebtedness, in particular in 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.]

(b) [ A number of problems that negatively affect the efforts to attain the conservation and sustainable use of forest ecosystems stem from the factual lack of alternative options available to poor rural populations. Unless those options, in the form of adequate prices for the products of sustainable use and technical aid, [and the development of appropriate and environmental friendly industrial capability ] are provided in an internationally cooperative manner, no efforts in restriction of forest use will succeed.]

(c) [ A number of problems that negatively affect the efforts to attain the conservation and sustainable use of forest ecosystems stem from the factual lack of alternative options available to poor rural populations. Unless those options, in the form of [ alternative sources of forest products are provided to the rural population in the manner of international support, adequate financial and technical help ] no efforts in restriction of forest use will succeed.]

(d) [ Policy formulation with respect to forests should take account of the pressures imposed on forest ecosystems from causes outside the forest sector both domestically and internationally.]

(e) The lack of alternative options available to local communities in particular the poor populations economically and socially dependent on forest and forest ecosystems should be addressed.

10.

(a) [ Developing countries should be compensated for their 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 as well as sustainable management and conservation of their forest resources [in order to maintain biological diversity and climatic stability ].]

(b) [ Priority should be given to those forestry activities which are economically and socially necessary to meet national needs. Special assistance may need to be provided where developing countries incur in costs in pursuing activities for the global rather than the national good ].

(c) [ The incremental costs of the special types of forest for conserving biodiversity and counter green-house emissions gas emissions should be covered by global funding. These funds should be new and additional. ]

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 including forest inventories and assessments, which takes into account the biological, physical, social, economic [ and other relevant key variables ] carried out by national institutions 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

aspects of forests and forest management are essential to the conservation and sustainable development of forests and should be strengthened.]

(c) [ International exchange of results [ of achievements in the field ] of forest and forest management research and development should be strengthened and broadened as appropriate , making full use of education and training institutions and the private sector.]

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

14.

(a) [ Trade on forest products must be consistent with international trade law and practices as embodied for example in the General Agreement of Tariffs and Trade (GATT) and its subsidiary agreements. ]

(b) [ Removal of tariff barriers,] the 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, 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 ] which 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 ]].

15.

(a) [ All forms of unilateral actions to restrict and/or ban the use of timber and other forest products should be removed as such actions are counter-productive in terms of long-term sustainable forest management ].

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

16.

(a) [ Pollutants are harmful to the health of forest ecosystems at local, national, trans-boundary and global levels and should be strictly controlled.]

(b) [ The adverse effect of pollution on forests and forest ecosystems should be addressed.]

17. Forests constitute a significant reservoir of carbon and their role in the global carbon cycle should be recognized and considered in the development of national forests policies and plans.

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## DESERTIFICATION AND THE MANAGEMENT OF LAND RESOURCES

### SUMMARY

**Management of Land Resources:** The debate was divided into the three sections addressed by the Secretariat documentation, namely fragile zones, integrated approaches to planning and management, sustainable agriculture and rural development (SARD). All three subjects were dealt with during the first week of the conference with most delegations agreeing that the work done by the Secretariat on fragile zones was a good beginning but needed much more detailing. Most delegations agreed that the integrated approach to planning and management of land resources using a broad definition of land resources was a valid approach and congratulated the Secretariat on this particular element of the documentation. There was little time to discuss SARD and the subject was not revisited during informal discussions. The chairman of Working Group I prepared a summary of the discussion on these items which was accepted.

**Desertification:** The discussion on desertification was delayed due to the lack of availability of the document in any language but English. It was also delayed somewhat to allow the forestry discussions to finish and thus permit the G-77 delegations to attend both sessions. Eventually twenty-five countries and organizations spoke on the issue with a major representation from Africa. Key issues were the importance of linkages to other issues especially to fresh water and poverty, the regional dimension, the need to mobilize adequate resources to address desertification and political will.

The discussion was hampered by the poor quality of document PC 62 and the lack of proposals for agenda 21. The UNEP report which was to include recommendations for Agenda 21 was not completed in time. It will be ready in draft form for the September meeting of the International Coordinating Committee on Desertification. The discussion closed with a reiteration of how important the issue was. The New York meeting will provide an opportunity for Working Group I to look at Agenda 21 items on land issues.

### Documentation

A/CONF.151/PC 63	The elements of an integrated approach
A/CONF.151/PC 61	Agriculture, environment and development
A/CONF.151/PC 42, Add 2	Options for Agenda 21

A/CONF.151/PC 62	Combatting desertification and drought
A/CONF.151/PC/WG.1/L 29	Desertification and drought: Proposal for Action
A/CONF.151/PC/WG.1/ CRP.12/Rev.1	Land resources: Options for Agenda 21
A/CONF.151/PC/WG.I/ L.34/Rev.1	Land resources: Decision
A/CONF.151/PC/WG.I/ L.36/Rev.1	Desertification and drought: Decision
UN Sudano-Sahelian Off. Alternative and Sustainable Systems of Production and Livelihoods in Marginal Lands	

## PREPCOM DISCUSSION

The primary Canadian objectives were:

- to help translate international policies and programmes into action to achieve world-wide sustainable and ecologically sound agriculture. To this end support the Den Bosch Declaration and Agenda for Action.
- seek endorsement that countries adopt national soils policies
- support and encourage an integrated approach to land management including secure land tenure and the active participation of local farmers, foresters, indigenous peoples.
- ensure that the interests of women are adequately considered
- improve quantitative and qualitative information about soil loss and desertification.

### 1. Management of Land Resources

The debate focused on the options for Agenda 21, document PC 42, Add 2 and examined the three proposed programme areas:

- a) The protection and management of fragile ecosystems

- b) An integrated approach to planning and management
- c) Sustainable Agriculture and Rural Development

a) The protection and management of fragile ecosystems

Lead by an intervention from Switzerland, almost all countries in which mountains are a predominant feature called for the Prepcom to consider mountains as a fragile ecosystem. The Andean group of countries developed a draft proposal for a global strategy for the regulation and management of the catchment areas in mountainous areas.

A number of island countries also called for islands and coral atolls to be designated as fragile ecosystems. Several delegations pointed out that the detailing of this section of the Secretariat report was very poor and asked that more work be done. The Secretariat asked for written suggestions from delegations and then made several modifications to the text which were subsequently discussed by Working Group I in informal session and were generally supported. Detailed discussion of Agenda 21 proposals for this programme area will have to await further work by the Secretariat and the fourth Prepcom.

b) An integrated approach to planning and management

The discussion on an integrated approach to planning was generally very supportive of the Secretariat paper. Canada proposed stronger wording on women and indigenous peoples and knowledge and asked that the framework for integrated planning be fleshed out to give equal importance to all sections. It was recognized that the main barrier to integrated approaches lay in the weakness of institutional structures at the national level to overcome fragmentation and undue sectoralization of the development process.

Illustrations were given of national experiences with land use planning and initiatives for land care or primary environmental care which could provide useful frameworks for an integrated approach to planning.

c) Sustainable Agriculture and Rural Development

The programme proposals for SARD were generally supported. Some suggestions were made for additional work on sustainable agriculture issues in the developed countries and examining forms of agriculture using lower inputs of agricultural chemicals. Unfortunately the discussion on this section of the Agenda 21 proposals lasted only an hour which did not allow for adequate comment. This discussion will have to take place at the fourth Prepcom.

Important points raised during the general discussions on the management of land resources included:

- the need to set priorities (especially with respect to SARD) and to take into account



the availability of funds and institutional capacity

- the importance of directing actions to the local community level
- the need for special attention to be given to ensuring that actions are specifically directed to women who in many countries are the primary land users and food producers
- the need for action to address the root cause of land degradation (poverty) and the need for a sounder economic environment (some countries pointed towards the trade imbalance and problems of debt)
- the need to establish and strengthen meteorological monitoring capabilities
- recognition of the value of indigenous and traditional land management practices
- action related to land tenure and access to and control over land
- the need to include actions directed at sustainable agricultural practices, particularly with respect to management of pest, disease and weeds which recognize the need for chemical management together with the use of effective alternatives.

## 2. Desertification

The debate began with an intervention from Senegal speaking on behalf of the African countries. Senegal pointed out that regional organizations and NGO's have contributed the most to the fight against desertification. They reiterated that the problem required comprehensive solutions which PC 62 did not address adequately. They noted that it was important to include social and economic dimensions in seeking solutions.

Mauritania followed by requesting that UNEP submit its expert report proposing action as soon as possible. They proposed massive reforestation programmes to combat desertification.

Denmark then spoke on behalf of the Nordic countries noting the strong links of this issue to freshwater and poverty. They noted that UNEP had not submitted the report which was to have included proposals for Agenda 21 and called for better cooperation between UNEP and UNCED.

Egypt stressed that the document suggested a passive attitude of the populations affected by desertification which was not correct and asked for a better definition of the role of UNEP with respect to the issue.

The US pointed out that a better understanding of land degradation was needed. Infrared scanning of the Sahara, for instance, shows that in some places the desert is advancing while in others it is retreating. They called for more government emphasis on incentives and greater community participation. They believe that organizations already exist in the affected countries to channel resources. They commended the work of UNSO and urged UNEP to take further action. They asked that UNEP's report be speeded up and that it focus on action.

Tanzania pointed that over-exploitation of land is both a cause and a symptom of poverty. They called for North/South cooperation as being essential to combat desertification as was public participation.

The meeting was concerned that there be proposals for Agenda 21 and pointed out that while all delegations agreed on the importance of the issue, by the end of the session only one third of the delegations remained in the room.

The informal discussion on desertification was limited to a consideration of the general programme areas presented in L29, the revised document on desertification. Delegates added new possible programme areas and made modifications to the proposed areas. The new programme areas proposed were the eradication of poverty, the integration of anti-desertification programme into national development programmes and improving the integrated approach to planning and management. It was agreed that desertification was a high priority area for developing countries and that it should be first on the agenda of Working Group I at the next session.

## OUTCOMES AND ASSESSMENT

### 1. Management of Land Resources

The final discussion on land resources gave broad approval to the three main programme areas (fragile zones, integrated approach and SARD) but asked the Secretariat to revise and elaborate on the Agenda 21 proposals as amended in the chairman's summary (CRP.12). There was little opportunity to have a detailed discussion of the approaches proposed in the three programme areas and this will have to wait until the next PrepCom. In particular there was virtually no discussion of SARD and it is not clear when this will occur. CIDA might wish to follow up with the FAO to find out what has been done in this respect as this area was their responsibility.

In general, delegates pointed out that the Agenda 21 proposals still needed to be costed and mechanisms for action proposed; the question of technology transfer for implementation had to be addressed and the responsibilities for implementation and related institutional questions had to be looked at.

The structure and general proposals for the three programme clusters were considered to cover most of the important issues concerning land resources. Speakers showed appreciation for the broad and integrative nature of the debate. Comments were made on the need to give prominent attention to the development aspects of issues concerning access to land resources and land tenure and participation of women. Support was given to a broad approach to land resources which considers land, water, and other resources in an integrated way.

## 2. Desertification

The discussion on desertification was somewhat of a bellwether for the developing countries, in particular the African countries, who indicated that desertification was not being adequately addressed by the meeting. The documentation was poor and only available very late in any other language than English. The final decision of the meeting outlines the 9 programme areas which were agreed on by the meeting and asks the Secretary General to provide proposals for Agenda 21 for discussion at the next PrepCom. UNEP was criticised from all sides for not having completed the work which they had been tasked to do for the third PrepCom. UNSO was generally praised. Governments were invited to provide further comments to the Secretariat by the end of September to feed into this process. The discussion on desertification was in general one session behind the other sectors for the reasons mentioned above and this was another irritant in the general North/South split. The OECD is planning some kind of support to Africa on desertification which Canada should keep up to date on.

Although it has been agreed to put this subject first on the agenda of Working Group I for the next meeting it is not clear how far discussion will advance before the conference in Rio.

Only two of the five main objectives were addressed at the meeting: the role of women in the management of land resources and the need for an integrated approach to planning and management. There was broad consensus on both issues but policy implementation was not discussed. On the three other objectives there was little discussion.

At the next PrepCom it is unlikely that land resources will be discussed in detail except for the Agenda 21 options on desertification which the Secretariat and UNEP are to prepare over the next three months.

Third UNCED Prepcom  
Working Group I  
16 August, 1991

**CANADIAN INTERVENTION ON LAND RESOURCES**

**STATEMENT BY BARBARA BROWN  
CANADIAN DELEGATE**

Mr. Chairman, on behalf of the Canadian Delegation, I wish to express our appreciation for the background documentation prepared by the secretariat on the protection and management of land resources. In particular the paper on "An integrated approach to planning and management of land resources" (PC 63) is an excellent resource.

We would like to take this opportunity to comment on the very complete proposals put forward in PC 42 Add. 2 "Options for Agenda 21". We are pleased to note the broad based approach taken to the issue of land as defined in the document in para 3 and strongly support the identification of linkages between land, the sectors which form it and the economic, social and other cross sectoral issues. However, linkages with other environmental issues such as climate change and fresh water resources need to be more fully integrated. PC 42 Add. 2 provides a good broad outline but does not propose an action plan which is supported by institutional, financial and technical resources. We would be pleased to work with the secretariat and with other delegations during this prepcom to improve the wording of the document and to develop an action programme which we would present to you, Mr. Chairman.

In general we support the three major programme areas identified in the document. We would like to highlight areas needing particular attention within the various proposals and suggest areas which require strengthening. We will limit our comments to the second programme area namely an integrated approach to planning and management.

1. With respect to the integrated approach to planning and management we particularly agree with the recommendation to strengthen coordinating mechanisms at the local, national, and regional levels to permit better coordination among various technical sectors as well as between technical sectors and social and economic disciplines. We also agree that appropriate incentive structures must be put in place especially at the local level to support appropriate land use and protection.

Secondly we agree that the development of a more responsive and participatory planning and management system is an important element of an improved system for decisions on land resources. In this respect instituting systems which ensure the participation of the full range of land users and managers and particularly of women, indigenous peoples and local communities in the decision making process at all levels will be crucial to the protection of the land.

Thirdly it is important not only to develop pilot projects and exchange experiences but a systematic register of successful experiments in integrated and participatory planning and management should be maintained. Such a register would include descriptions of lessons learned and a record of the parameters which led to success or failure for on-going development of the approach. The CGIAR network, IFAD, FAO and regional institutions might collaborate in the development of such a register.

Finally we would like to see some expansion of the concept as presented in the document in paras 21, 23 and 24 as these are equally important elements of the approach. We would like to suggest that this programme area of the document might serve as a planning guide at the national and local levels as well as for the development of pilot projects. To this end we would be pleased to work on precise wording for presentation to the chair. Thank you, Mr. Chairman.

2. Mr. Chairman, on behalf of the Canadian Delegation, I am pleased to present our comments on the third programme area outlined in PC 42 Add.2, Sustainable Agriculture and Rural Development. The Canadian International Development Agency has, over the past year, been developing a framework for sustainable development which encompasses the elements of economic, political, ecological, social and cultural development. We are thus pleased to see that the document includes these many elements in its approach.

Canada would like to express its support for the Den Bosch Declaration and Agenda for Action where the concept of sustainable agriculture and rural development was discussed earlier this year. The Agenda and its associated document "Elements for strategies and agenda for action" have appropriate major elements at the national level. However, the elements at the international level such as international trade, market access and pricing while supportable in principle will require further discussion in detail. World trade and international aid policies should be scrutinized to ensure that the development of energy, agriculture, timber and water resources and interventions in social and economic systems do not lead to desertification and destruction of the land resource. Discussions of world trade and economic issues within UNCED must link with other fora who area addressing this such as OECD-DAC, the GATT and UNCTAD.

We are particularly pleased to note the proposals in this programme area on peoples participation and the development of human resources. We would like to note, however, that there is no discussion of the need for special programmes to meet the needs of women farmers and traders. Formal institutions have traditionally been unable to reach women either through credit programmes, research or agriculture extension or in the provision of advice on small enterprise development. Given the major role played by women in all regions of the world especially with respect to food production we would ask that subsequent drafts of the proposals address this key need.

Valuable knowledge about traditional farming practices, plants and medicines is held by local communities and indigenous

peoples. Formal institutions have proven largely unable to reach these important population groups. Successful programmes which have been developed in this respect should be recorded and the lessons learned made available for others. Local communities and indigenous peoples who rely on the land to maintain their livelihood, social and cultural identity have rights, values and traditional knowledge which must be safeguarded and respected. We would ask that the section on people's participation be further detailed to discuss the strategies for safeguarding the rights of, providing appropriate services to as well as learning from local communities and indigenous peoples.

In this respect we do not agree that the primary focus of attention should be on the strengthening of higher education in agriculture. This should only be a priority if the focus of such tertiary level institutions is clearly on the development of techniques appropriate to both men and women farmers, including subsistence farmers. Such education programmes should draw on local information about traditional plants, farming systems and pest, disease and weed control and seek ways to improve systems for the dissemination of these technologies to subsistence level farmers.

We applaud the paper's focus on integrated pest management and sustainable plant nutrition. In particular the proposed activities on integrated pest management are comprehensive and represent an excellent approach to significantly reducing the use of acutely toxic and persistent pesticides and herbicides. The proposals on sustainable plant nutrition, however, need to be further developed to move beyond long term research projects and to focus instead on research and extension services aimed directly at farmers' immediate practical needs.

We recommend that those institutions already developing methodologies for the participation of small scale farmers and indigenous peoples in planning, decision making and programme implementation, be given adequate recognition and support for their work and that an inventory of these successful participatory programmes be developed. Similarly the world network of farmers working on new approaches to sustainable agriculture should have international recognition for their valuable contribution and adequate support to allow them to continue their ground breaking work. Their experience should be systematically recorded and made available on an international basis to others seeking similar solutions.

In closing, Mr. Chairman, I would like to thank the secretariat for the completeness of PC 42 Add 2 and recommend that the proposals be further developed to ensure that they take into account experiences world wide on the participation of community groups, the inclusion of women in the decision making process at all levels, the invaluable contribution that indigenous peoples have to make with respect to protection and management of land resource and the pioneer work that has been conducted by the international network of farmers working in sustainable agriculture. Thank you Mr. Chairman.



## General Assembly

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CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Third session  
Geneva, 12 August-4 September 1991  
Working Group I  
Agenda item 3 (c)

### LAND RESOURCES: DESERTIFICATION AND DROUGHT

#### Chairman's Summary and Proposal for Action

#### Highlights of Debate:

1. Discussion on A/CONF.151/PC/62 showed the regional and global nature of the desertification problem and the important developmental and environmental implications that need careful investigation and immediate action. Several delegates expressed the view that desertification had a significant impact on the earth's climate and resources and should be seen as an important environmental trend affecting climate change.
2. The document was welcomed for its consideration of desertification in the broader framework of land degradation, with its direct and indirect causes. Differing views were expressed on the definition and conceptualization of desertification. Some delegates argued that desertification is caused by over-use of agricultural, pastoral and silvicultural lands and is mainly a consequence of inappropriate land-use methods. Others suggested taking an

approach which incorporated all factors - soil, water, flora, fauna and climate - as well as the associated socio-economic dimensions in dealing with the problem of desertification. The peculiar problem of waterlogging and salinity in irrigated areas was also cited by some as a major cause in the spread of desertification.

3. The urgent need for action to combat desertification was expressed by many delegates. Various recommendations to combat desertification were also put forward. One of the recommendations states that increased resources should be provided: (a) to study the land-use practice that contributed to land degradation and the promotion of ecologically sustainable land-use practices; (b) to develop simple procedures for assessing and measuring land degradation; and (c) to develop education and extension programmes directed at land owners and users with particular reference to traditional owners and the transfer of their body of traditional knowledge and concept of stewardship. The program should involve the land owners and users in all aspects of research, monitoring, and extension work.

4. There was also a suggestion that action to combat desertification should be seen at three levels: the village level, the national level and the international level. The village level should be given first priority as we often have the tendency to forget that the real combat against desertification has to take place on the local level where human beings struggle for survival. When planning and implementing desertification control at the village level, the focus should be on promoting the participation of local people, the development of technologies that are accepted and can be managed by local people and the search for appropriate solutions to land tenure and ownership issues which are essential for good land-management practices. At the national level, the development of an integrated and multi-sectoral and cross-sectoral approach and favourable economic and social policy is needed. At the international level, priority should be given to the systematic analysis and processing of desertification control information and to better access to it for all interested groups of users.

5. The African Group represented by the Ambassador of Senegal underscored the devastating impact desertification had on people and economies of Africa where 45% of the world's deserts and arid lands are found. The African group emphasized the following points regarding the document and the programmes that needed to be developed in dealing with desertification.

6. Serious concerns were raised by the inadequate attention given to the result of the United Nations Plan of Action to Combat Desertification (UNFACD), the financial and technical support given in its implementation, the need for further international cooperation that might be required in this area as requested during PrepCom I. The request to PrepCom II to pay particular attention to the developmental aspects, social and economic dimensions and popular participation was not well reflected in the document (A/CONF.151/PC/62) and required further strengthening.

7. There was a suggestion that desertification should receive greater attention as a social and economic development problem requiring a cross-sectoral and comprehensive integrated approach in the programme activities designed to combat it. Poverty is seen as a primary contributor to



environmental degradation and the creation of environmental refugees in areas prone to desertification and drought.

8. The African group argued that the regional aspect of the desertification process and desert conditions must be given due attention in any programme that might be conceived to address the problem. They also stressed the importance of taking into account the development of institutional capacity, manpower and infrastructure and the global mobilization of resources for desertification control activities.

9. The experience from Nordic supported projects and activities provided insights to the ongoing effort to combat desertification. They acknowledged that many projects were of the "single component type". There had often been a lack of local participation in all stages of the project cycle and a lack of rational cooperation both internationally and at the national level. The Nordic experience suggests that the most important areas of research and development to combat desertification are:

(a) Understanding of the desertification concept and its implications for development;

(b) Practical monitoring of desertification;

(c) Sound productive practices;

(d) Local socio-economics and local participation;

(e) Land tenure issues;

(f) Exchange of experience and coordination.

10. There was a repeated call by many delegates for greater cooperation between UNCED and UNEP, since UNEP is given a special mandate by the General Assembly to prepare a report on desertification. In particular, the Nordic countries would like UNEP to work closely with UNCED in the preparation of its desertification report. They would also like to see the Agenda 21 parts of the UNEP report integrated in the documentation for the next session of the Preparatory Committee in March 1992.

11. In general, support was given to the objectives and programme activities outlined in options for Agenda 21. But, some expressed the view that priority should be given to the curtailment of ongoing desertification instead of the rehabilitation of severely desertified areas, which they felt was costly. Similarly, the programme activities in paragraph 90 of document A/CONF.151/PC/62 were considered to be exhaustive and establishing priorities was recommended. Several countries pointed out that in developing the elements for Agenda 21, due attention should be paid to linkages with other topics such as fragile ecosystems, an integrated approach to planning and management of land resources, and sustainable agriculture and rural development.

12. The recommendations to be included as Options for Agenda 21 are presented below and indicated in [ ].

## V. OPTIONS FOR AGENDA 21

### Basis for Action

81. Efforts to control desertification have been going on for many years, but they need to be improved and made more effective. At this stage it was felt that a system was needed to better focus the control efforts. For this reason this report presents a broad programmatic framework. This programmatic framework, and the options for action proposed could later be developed as part of Agenda 21, possibly within the framework for action in fragile ecosystems.

82. The programmatic framework is intended to provide a simple, logical structure and an immediate focus for desertification control. The framework also serves as a basis for preparing desertification control action recommendations and should facilitate the selection and design of effective control interventions. At the same time, it can be used for testing the validity of ongoing projects or for evaluating new proposals suggested by others. The framework also offers a systematic way to decide on the priority of specific control efforts. Such priorities will have to be set among the many possibilities for controlling desertification in the light of financial and physical constraints. In general, the framework should help to focus the discussions on desertification on the proper control efforts. It is hoped that it may be developed into a veritable blueprint, a detailed plan of operations for the control of desertification.

83. It is pointed out here that a major, new instrument for improved desertification control is currently being developed by UNEP/GRID in the form of a world Atlas of Desertification. This work, which is expected to be available in 1992, will provide world maps of soil degradation drawn to a scale of 1:10 million and separate, supporting cartographic documents of case studies in selected countries.

### Main Objective of Desertification Control

84. The overall objective of desertification control is to promote use of drylands in such a manner that it ensures a sustainable livelihood for those who depend on those resources. Sustainable use of the drylands means that these lands are not used beyond their ability to support agriculture and livestock production, or non-productive uses such as recreation and military operations. The impact of desertification is felt beyond the dry regions, for example, in terms of erosion materials are deposited by air and water in neighbouring countries, or even much farther from their origins in the drylands. The importance of desertification control, therefore, exceeds the strictly regional concerns and interests of the drylands populations.

85. The immediate purpose of desertification control, as indicated by the term itself, is to control ongoing desertification by curtailing the further degradation of the soil and vegetation resources of the drylands. UNCOD (1977)

defined the immediate purpose along the same lines i.e., "to prevent and to arrest the advance of desertification and, where possible, to reclaim desertified land for productive use." In short, desertification control aims to improve the existing land conditions in some dry areas and to keep the soil and vegetation resources in as good a state as possible in other dryland areas.

86. The existence of control operations themselves does not however guarantee that the purpose of desertification control will be achieved. Factors outside the immediate technical control operations, such as socio-economic conditions and political or religious considerations, may prevent achievement of comprehensive desertification control. Such non-technical issues must be identified as conditions that must be resolved if the control operations are to succeed.

87. The suggestions offered here have one thing in common - they are all designed to offer pragmatic approaches to desertification control. They are also designed to fit into the proposals for Agenda 21 for Land Resources (A/CONF 151/PC/42/Add.2). They must also address head-on the various deficiencies identified in relation to action to combat desertification to date, and, in particular, in the implementation of the PACD, such as the lack of political will or the institutional questions. Some of these issues are already being addressed in a general manner in other papers before the Preparatory Committee, for example on institutions.

88. The specific management objectives of desertification control are best defined separately for the three categories of operations that are necessary to achieve comprehensive control:

(a) Prevention of the spread of desertification

89. This is more relevant for slightly desertified or non-desertified areas and the objective could be to maintain and continue proper land-use. Proper land-use in the peripheral non-desertified areas that are prone to desertification should be maintained through a combination of three actions: strengthening the control by village associations or nomad groups over their land resources; improving the land management techniques of local populations by modernizing and reinforcing the agricultural extension services; developing physical land-use plans or master plans to guide the actions above.

(b) Curtailment of ongoing desertification

90. This is relevant in moderately and severely desertified areas and the specific objective could be to contain and end the misuse or over-use of land resources. Two distinctly separate efforts could be undertaken to control ongoing desertification, one which focuses on misuse, and the other concentrated on over-use of the land resources.

(c) Rehabilitation of severely desertified areas

91. This is relevant in selected, very severely desertified areas and the objective could be revegetation and rejuvenation of the area. In recognition of the fact that rehabilitation of degraded areas is a costly undertaking and

will provide mostly long-term benefits, and in view of the fact that already degraded areas in many cases no longer pose immediate threats requiring immediate action, the resource recovery would be limited to selected areas.

[Promotion of socio-economic development of affected areas by desertification]

92. The priority for desertification control efforts will undoubtedly be set, at least in part, by the availability of funds. Also, desertification control is one of several environmental initiatives that will be considered by UNCED. The global priorities for control will therefore be evaluated in the context of other financial and environmental concerns. Considering this overall constraint, it seems prudent to give high priority to the prevention of desertification (category (a)) in large non-desertified areas and to the rehabilitation of certain specific severely desertified areas (control category (c)), and then to embark on a full-scale attack on ongoing desertification in moderately degraded areas (category (b)). The prevention programme could be designed to contain the spread of desertification and avoid further damage. The focus of the rehabilitation programme could be on certain severely desertified areas. The programme will only rehabilitate those degraded areas, such as certain watersheds, deflation areas, etc., that, if left untreated would continue to have a negative impact on a much wider region. Secondly, the programme would rehabilitate environmentally sensitive areas, certain wetlands, wildlands, or other areas that have particularly vital ecological functions in the world's drylands. Broad efforts to curtail ongoing desertification in other desertified areas could subsequently be undertaken in line with the priorities set by each country concerned. Countries should set their priorities in deciding between measures designed to curtail degradation on over-used and on misused lands.

93. Over-utilization of land is often detected at a later stage, almost after the fact, i.e., after the damage is obvious. Misuse or inappropriate use of land is easier to detect and therefore easier to control than over-use. The wrong use of land resources can be recognized and terminated at an early stage. Wrong land-use includes the use of sloping, unprotected lands for farming, or the use of lands unsuitable for crop production because of inherent low soil moisture. More generally, desertification control has become an integral part of development planning, particularly for the rural sector, in the relevant countries and sub-regions. It has to be integrated into programmes and policies for poverty alleviation, employment generation, agricultural production (including, in particular, animal husbandry), village forestry and small industry development and settlement planning. Control programmes that operate as "add-on" measures independently of other development programmes may well fail to meet those objectives.

[94. The following programme areas are proposed to combat desertification and drought:

Proposed Programme areas

- A. Building up the knowledge base and developing an information and monitoring system of fragile ecosystems

- B. Intensifying afforestation activities, combating land degradation, support of the management of biotic resources
  - C. Developing programmes for alternative livelihood systems on marginal lands
  - D. Encouraging and supporting popular participation and environmental education
  - E. Establishing enabling mechanisms and a Desertification Fund
  - F. Designing programmes to cope with environmental refugees
  - A. Building up the knowledge-base and developing an information and monitoring system of fragile ecosystems
1. Basis for action

Determine the potential of resources and the limits of their productive capacity and assess the current system of production utilization and exploitation. Increase the knowledge base that would allow for timely intervention. Promote a multi-sectoral and integrated approach.

2. Objective

Institute sustainable management of the resources with the view to improving the living standard of the populations in the desert and semi-arid areas. Promote data coordination between national, subregional and regional institutions. Ensure coordination of sectoral ministries and institutions.

3. Activities

- (a) Strengthen research and national training capabilities.
- (b) Develop inventories of the resources.
- (c) Develop integrated information systems for environmental monitoring, accounting and impact assessment.
- (d) Develop the knowledge-base on the production and conservation practices of the concerned population.
- (e) Strengthen capacities in conservation legislation, institutions and techniques related to fragile ecosystems.
- (f) Strengthen the meteorological and hydrological networks and monitoring systems to ensure adequate communication to regional and international weather centres.
- (g) Support the acquisition of relevant and necessary equipment and materials and access to data.

(h) Establish mechanisms for preventive measures and early warning systems.

(i) Strengthen national machinery to coordinate and implement the strategic framework programmes for fragile ecosystem management.

**B. Intensifying afforestation activities, combating land degradation, and support of the management of biotic resources**

**1. Basis for action**

Increase vegetative cover, promote biodiversity conservation and mitigate global warming as Shown in IPCC report - reforestation of 12 million hectares per year during the next 40 years would slow down significantly the rate of increase of carbon dioxide in the atmosphere.

**2. Objective**

Improve biomass production, ecological stability and soil and water conservation. Improve management of forest resources and promote alternative energy sources other than fuelwood. Reduce global warming. Promote biological diversity and the safe utilization of the genetic resources.

**3. Activities**

(a) Intensive afforestation and reafforestation and support measures to increase vegetative cover.

(b) Development of agro-forestry.

(c) Protection, restoration and conservation of water and soils.

(d) Increasing planting of indigenous and exotic tree species for woodlots and community forests and implementation of agro-forestry practices with due consideration to individualized incentives, including incentives for women.

(e) Promote alternative energy sources other than fuelwood (e.g. solar, wind, etc.) with particular attention paid to women.

(f) Promote collection, evaluation and conservation of gene pools.

(g) Establish mechanisms for soil and water conservation.

(h) Improve water management in irrigation system.

(i) Develop and maintain institutional and legislative capacity and capabilities required for the conservation of biological diversity.

(j) Strengthen wildlife management programmes.

C. Developing programmes for alternative livelihood systems on marginal lands

1. Basis for action

Increased population pressure on drylands generally comes from local population growth, from concentration of livestock and human population on areas where carrying capacity is outstripped. Reduce pressure on the resources of marginal lands. Poverty eradication.

2. Objective

Promote alternative economic activities to reduce population pressure on marginal lands. Improve the living standards of the people, particularly those affected by desertification to contribute to the prevention and reversal of desertification through poverty eradication. It is therefore considered of utmost importance that the world community undertake a new and singular commitment, through what can be called an Absolute Poverty Eradication Programme (APEP) for the next decade.

3. Activities

(a) Introduction of off-farm employment in rural areas and centres with particular encouragement given to smaller entrepreneurs, women, youth and the informal sector.

(b) Improve land resources and livestock management.

(c) Integrated rural development programmes.

(d) Human resource development.

(e) Improvement of terms of trade and addressing Africa's external debt issue.

(f) Promote social services such as rural water supply, health care delivery systems, and rural infrastructural development.

(h) Support and encourage developmental activities undertaken by women.

(j) Promote literacy programmes particularly among women, youth and elderly people.

D. Encouraging and supporting popular participation and environmental education

1. Basis for action

As the users and primary beneficiaries of natural resources, the participation of local populations in environmental conservation is important. The important role of determining the level of environmental

consciousness cannot be over-emphasized. Promotion of environmental education for all ages and sectors of society will be enhanced by a greater awareness of the causes of desertification.

## 2. Objective

Promote greater awareness of environmental issues among the public, support greater public participation in environmental programmes, establishment of decentralized institutional systems to allow decision-making at grass-root level.]

## 3. Activities

(a) Mobilization of the public to appreciate and promote desertification control measures.

(b) Undertaking of prior assessment and public reporting of the environmental impact and reporting of the environmental impact and risks of any policies, plans, projects, products or industrial facilities that may have significant effects on human health and the state of environment.

(c) Reaffirmation of the right of individuals, groups and organizations to participate in decisions regarding desertification control.

(d) Democratization of environmental action, including the enhancement of the role and the opportunities of women and NGOs..

## E. Establishing mechanisms and a Desertification Fund

### 1. Basis for action

The increasing depletion of financial resources by the collapse of commodity trade, escalating external debt-service payment and the huge costs of current levels of control of the massive problems of desertification and drought call for massive international financial resources to combat desertification. There is a need to underscore the particular situation in Africa. Indeed, Africa has the vast Sahara desert, Kalahari and the Sahel with their enormous desertification and drought problems. This fact calls for special international consideration in the commitment of resources for environmental protection and desertification control.

### 2. Objective

An international programme for the promotion of efforts towards the prevention and reversal of desertification and control. Develop programmes and support the strengthening of existing ones with the view to alleviate the suffering of all the people living in the affected areas and those that are threatened through desertification.

### 3. Activities

(a) Identify and implement programmes which will meet daily needs for food, shelter and energy requirements.



(b) Strengthen and implement national programmes for combating desertification through the full involvement of the people, Government, women, youth, private business, trade unions and environmental groups and NGOs.

(c) Promote public awareness and environmental education.

(d) Support a more coordinated approach to desertification research, and other operational activities in the areas of desertification control being undertaken by sub-regional institutions such as (CILSS), IGADD and SADCC and other sub-regional and regional organizations.

(e) Encourage the use of existing environmentally sound sources of energy, particularly solar, wind and biogas energy.

(f) Develop and implement policy measures, programmes, and strategies that will reduce rural and urban poverty.

(g) Encourage and reactive regional and international cooperation.

F. Designing programmes to cope with environmental refugees

1. Basis for action

In many parts of the world there is an increasing number of refugees of an economic and ecological nature. These displaced populations settle in fragile ecosystems which also provide feed for their livestock and their building materials, forming the nucleus of desertification.

2. Objective

To facilitate the establishment of refugee settlement. Promote alternative income-generating activities in order to reduce pressure on the fragile ecosystem.

3. Activities

(a) International support for the establishment of environmentally sound refugee and displaced-people camps.

(b) International support for environmental education for refugees and displaced people.

(c) Environmental management programmes based on introduction of alternative income-generating activities to tap the human-resources potential of the refugees.

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Third session

Geneva, 12 August-4 September 1991

Working Group I

Agenda item 3

LAND RESOURCES

Chairman's Summary and Proposals for Action

Protection and management of land resources: Options for Agenda 21

Elaborated on the basis of discussions in the Working Group and associated informal sessions. Points in brackets to be elaborated on the basis of further negotiations.

## II. OPTIONS FOR AGENDA 21

7. Because of the nature and breadth of the land resources issue, many of the essential programmes that will contribute to reaching the issue-wide goals are presented elsewhere, as is the case for forests, water and biological diversity in particular. Land is considered in a broad manner (see A/CONF.151/PC/63, paras 6 and 7) as "...its topography...spatial nature...natural resources...ecosystem functions...climate...of concern to a variety of activities, including primary ones such as agriculture, pastoral production, forestry, fisheries...mining and energy production and extraction...as well as secondary and tertiary activities...settlements, industrial complexes, transport networks, public works and others.

### LAND RESOURCES WIDE OBJECTIVE

8. The broad objective for land resources is to protect and manage the land system so that it supports development providing the resources, goods and services to satisfy human needs in a sustainable manner and promote adequate living conditions for rural population. The specific goals for individual land resources include the protection of soils from loss and degradation to ensure their continued productivity; the protection and management of land ecosystems to ensure their sustainable development as entities; the promotion of land based productive activities such as agriculture in a sustainable manner and rural development; those goals that concern water, forests and biological resources and diversity more directly are dealt with elsewhere.

### PROPOSED PROGRAMME AREAS

9. The present document suggests, for the consideration of the Preparatory Committee, options for action in three major clusters of programmes, namely:

- a. PROTECTION AND MANAGEMENT OF FRAGILE ECOSYSTEMS
- b. INTEGRATED APPROACH TO PLANNING AND MANAGEMENT OF LAND RESOURCES
- c. SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT

10. Each of these clusters of programmes areas will contribute to the achievement of one or more of the Land Resources goals, in the same manner that programme areas for water, forests and biological diversity will also contribute. In turn, the programmes presented here will assist in the achievement of the goals for those areas. Within each of the major clusters presented below a number of subprogrammes and activities will need to be undertaken.

#### A. PROTECTION AND MANAGEMENT OF FRAGILE ECOSYSTEMS

##### Basis for Action

11. Fragile ecosystems, includes deserts, semi-arid lands, mountains, wetlands, small islands, and certain coastal areas. Fragile ecosystem are important ecosystems, with unique features and resources. Some, such as mountains or wetlands provide important services to areas far removed from the immediate ecosystem. They are important sources of biological and cultural diversity and storehouses of valuable resources and indigenous knowledge. A substantial proportion of the earth's population live in these areas. There

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is widespread poverty and underdevelopment in these fragile areas as opportunities for human livelihoods is limited. The fragile ecosystem have not received the attention they merit and the proposed programme seeks to remedy this situation.

12. In spite of the general lack of attention, a number of initiatives already address, or are being planned to address, the issue of protection and management of fragile ecosystems. These include the United Nations Plan of Action to Combat Desertification or the Wetlands Programme of the IUCN in the first category, or the Mountain Agenda currently being prepared by a consortium of interested organizations in the second. The subject of coastal area management and island states and options for action will be dealt with at length in the Agenda for Oceans. The general options presented at this stage will be spelt out on the basis of the Preparatory Committee's discussion on the fragile ecosystem in this session.

#### Objectives

13. The broad objective for fragile ecosystems is to manage the development process so as not to harm the resource base but to preserve, protect, rehabilitate and enhance the ecosystem and natural resources so that they can satisfy human needs on a sustainable basis.

#### Activities

14. As stated, only the most general strategic directions will be defined here, with the understanding that they can be further developed later on the basis of the results of the current initiatives. The issues concerning small islands and certain coastal areas and wetlands will be dealt with on Options for Agenda 21 on oceans.

#### Proposed Program Areas:

##### A. PROTECTION AND MANAGEMENT OF FRAGILE ECOSYSTEMS :

##### Activities:

- a. Building up the knowledge base by creating mechanism for cooperation and information exchange among national and regional institutions working on fragile ecosystems.
- b. Management of the development process in ways that would reduce poverty in a sustainable manner.
- c. Developing strategies for the rehabilitation of damaged ecosystems that would promote interalia the participation and improve the living conditions of local people.
- d. Provision of mechanisms that would preserve threatened areas that could have significant function for wildlife, biological diversity, or national park development.
- e. Building up national and regional institutional base that could carry research, training and dissemination of information on the sustainable development of the economies of fragile ecosystems.
- f. Development of human resources by providing access to education, health, energy, and infrastructure.
- g. Consider undertaking pilot projects that combine environmental protection and development functions with particular emphasis on some of the traditional environmental management practices/systems that has good environmental impact

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h. Examining means and ways for the provision of funds and transfer of appropriate technology from the developed countries to attain the sustainable development of fragile ecosystems.

i. Promoting alternative use for land such as cottage industry, livestock, wildlife, and marine based income generating activities in fragile areas where traditional agricultural uses are not viable.

J. Strengthening of scientific research and technological development programmes including diffusion through national and regional institutions in this field

B. INTEGRATED APPROACH TO PLANNING AND MANAGEMENT OF LAND RESOURCES

Basis for Action

15. 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. Integrated consideration facilitates appropriate choices and trade offs, thus maximising 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. A number of techniques, frameworks and processes can be combined to facilitate this integrated consideration. These are the indispensable support for the planning and management process both at the national level, ecosystem or area level as well as for the development of specific plans of action. Many of its elements already exist, but need to be more widely applied, further developed and strengthened.

16. The most important strategic directions that could be pursued are described below. The initiatives and programmes flowing from these strategic directions include work on both the theoretical and practical aspects, and can be carried out by national governments and with the cooperation of the international community. The description is of a very general nature for the moment (e.i. still in the nature of a general framework, with some examples of the types of actions that could be envisaged), in order not to preempt the various current initiatives both within the preparatory process, as well as in association with it, to develop various of these elements into full fledged programmes. Among these, one can mention work on assessment and information systems (A/CONF.151/PC/41), environmental accounting (A/CONF/151.PC/49), economic instruments (A/CONF.151/PC/50), legal measures, land use planning for agriculture and settlements and others.

Objectives

17. The broad objective is to facilitate allocation of land to the uses that provide the greatest sustainable benefits. This would require to set in motion a process that allows to bring together in a common framework all the different elements that make this possible. This includes the building up of the base of knowledge and information on land resources and their sustainable use; the development of appropriate institutions and policy instruments; putting in place incentive systems for better land use; the development of responsive planning and management structures and approaches, including the active involvement and participation of rural people and decentralization by moving more decision making authority and responsibility down to the local level; further development of the tools to support the planning and management system; the development of the necessary human resources to carry out these tasks, and finally, providing adequate financial resources.

Activities

18. A variety of options are available for actions and activities that can

contribute to the achievement of the broad objectives and goals described. While they are here described at the level of activities, it is apparent that these options could each be developed into full fledged programmes. In fact, a number of initiatives and major programmes already exist in these areas or are in the process of being developed. To name just one example, the Global Environment Monitoring System (GEMS) of the United Nations, which contributes data to the information base on land resources and the Global Resources Information Database (GRID). The main options for action fall within the following categories:

19. Understanding the land resources system and the implications for sustainable development of land resources is the basis for making wise decisions in this area and for ensuring that the uses and management practices are indeed sustainable over the long term. The main route to accomplishing this is through research, experience to develop best practices and, where necessary pilot projects to test the results and applications of research. Various elements could be included:

- a. clarification of ecosystemic interactions and interactions between land resources and social, economic and environmental systems;
- b. development of specific indicators of sustainability; development of a composite index of sustainability; research and evaluation of the operational significance of the indicators of sustainability and translation into management techniques;
- c. definition of the environmental, economic, social, cultural and political determinants of sustainability in local circumstances;

20. Development of more effective institutions and policy instruments is the key prerequisite for setting in motion and institutionalizing the process of approaching land resources issues in an integrated manner. This could involve:

- a. strengthening the institutional structures, including coordinating mechanisms that assist in the development and application of integrated approaches to the protection and management of land resources;
- b. strengthening of nations legal framework, regulations and enforcement procedures related to development and protection of land resources;
- c. further development of economic instruments that assist in the protection and management of land resources; to be developed further on the basis of discussions in Plenary on A/CONF/PC.151/PC/50;
- d. development of incentives and improved structures to support appropriate land use; [including redefinition of trade patterns and international economic relations; to be developed further on the basis of discussions in the Plenary and other fora];
- e. institutionalizing an integrated approach to land resources, which would entail the building up of all the institutional structures, machineries and planning and management processes at the national and local levels;

21. Development of a more responsive and appropriate planning and management system is another element in the putting in place of an improved system for decisions on land resources. This would involve, among other things, setting in place policies, approaches, procedures and bodies for land use planning and management at the national, regional and local levels. It not only involves the setting in place of integrative frameworks for planning and management, but also the systematic application of all the instruments described in para. 20 above as well as of the tools described in para. 22 below. Various elements could be included:

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- a. development of a more systematic and integrative system of goal setting and policy formulation at the national and local levels that supports an integrated approach to decisions concerning land and natural resources;
  - b. development and strengthening of institutions and institutional coordinating mechanisms that facilitate moving away from sectoral approaches and implementing a more comprehensive and integrated approach to land and natural resources;
  - c. the systematic use of integrative approaches to planning and management both at the level of place and scale, such as the ecosystem or watershed, as well as at the level of organization of actions in strategic planning frameworks that allow integration of both developmental and environmental goals, such as those provided by strategies for sustainable livelihood systems or rural development; the World Conservation Strategy/Caring for the Earth or Primary Environmental Care (PEC) and others.
  - d. the systematic approach to land use planning and conservation for development; this process should be supported by comprehensive analysis and evaluation of the system and areas of intervention, including the development and application of optimum land use allocation models; the systematic and prudent choice, assessment and review of action options; the application of economically efficient, socially sensitive and environmentally sound land and resource management techniques in an integrated manner and the systematic observation, review and evaluation of interventions, so as to constantly improve approaches and implementation;
  - e. development and application of procedures to facilitate participation of all actors in the decision making and implementation process, especially women, indigenous peoples and local communities; development of innovative approaches that allow more direct and active participation at all levels; this may include special programmes to address the rights and needs of particular groups, including the poor; women and children, indigenous people and other groups that have hitherto been excluded;
  - f. provision of appropriate technical information to all sectors of the population, especially to local communities in order to permit them to make informed decisions about land management and use; information should be available in non-technical language, local languages and in other than written form, such as pictorial or audiovisual to ensure that non-literate people, of whom women make a large proportion, have access to information;
  - g. establishment of flexible approaches to programme funding which allow for general parameters to be set in place centrally but permit proposals to be developed for funding at the local level, using a bottom-up approach and thus drawing on local information and knowledge;
22. Improvement and further development of the tools to support the planning and management process is an essential action, without which decisions on land use can not be appropriate. In all cases actions here should be supported by research, pilot applications, wide dissemination of experiences and training. Application at the national level is the end point, and this process can greatly be assisted by the international community, which has a major support role to play. The main elements could include:
- a. strengthening of existing assessment systems including those to gather environmental, economic and social data at the global, regional, national and local levels; this could, for example, be based on the further development and strengthening of an expanded Earthwatch system, supported by strengthened national capacity to gather and assess data

necessary for decision making; and development of new systems where necessary; development of improved and compatible systems for integration, analysis, interpretation and presentation of data; this could include, for example, the further development of the UNEP/GRID and the strengthening of national capacity to apply data in its decision making sequence;

- b. improvement and wider application of techniques and procedures for assessing impacts, risks and costs and benefits of specific actions; to be developed on the basis of strengthening of current initiatives in the field;
- c. further development and application of methods to assign values to environmental resources; further development and wider application of methods for resource accounting; to be developed further on the basis of discussions in Plenary on A/CONF.151/PC/49;
- d. strengthening of existing methods for environmental and developmental management; research on and application of appropriate traditional and indigenous methods; this would include conducting inventories, assessing the applicability of the methods under differing conditions, the wide dissemination of results through accessible data bases; development of new alternatives to existing systems and methods; research, development and application of new and improved methods, techniques and inputs to the development and management of land resources; wide dissemination and application of alternatives;

23. Strengthening and building the capacity to act is fundamental, without which none of the above actions can take place. Action in this area would entail focused and concerted efforts for education and training and the transfer of technologies, [including biotechnologies,] and techniques to strengthen the various aspects of the planning and management process at the national and local levels. Specific actions might include:

- a. awareness raising campaigns to alert all sectors of society of the importance of integrated land and resource management and protection and the role that individuals and social groups can play;
- b. introduction of interdisciplinary approaches in the curricula of schools and technical, vocational and university training, placing particular importance on integrative approaches to land and resource management;
- c. strengthening of national and local institutions, in particular, the coordinating mechanisms that allow the putting in place of integrative and interdisciplinary approaches to planning and management of land and resources;
- d. training of technicians and professionals to enable them to set in place, plan and manage land and resources in an integrated manner;
- e. enable the access and transfer of the management methods and techniques as well as the supporting technologies that will enable better planning and management of land and resources;
- f. developing low-cost, community managed systems for the collection of information on the status and processes of change of land resources, including soils, forest cover, wildlife, climate and other elements;
- g. providing training to communities and to extension services (health, community development, agriculture and forestry) and to NGOs on land management techniques and approaches developed in adjacent communities or other areas of the country or region;



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24. Conducting research, developing pilot projects and exchanging experiences on the process of integrated planning and management and of the results obtained would be useful. Actions could include:

- a. conducting further research on the ways and means of developing improved approaches to the integrated planning and management of land resources, not only at the technical level, but also at the social and institutional level; testing the applicability of the various approaches through pilot projects;
- b. establishing channels for regional and global exchange of experiences in integrated and participatory planning and management at the national and local levels; this could include the establishment of networks or other systems to spread information on successful experiences;

C. SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT

Proposed Program Areas:

C.1 Sector policy review, planning, programming, at both national and international level.

C.2 Ensuring people participation, with special programmes to meet the needs of women and small farmers and enhancing human resource development through both formal and non-formal education.

C.3 Improving rural livelihoods and income through diversification of non farming employment opportunities as well as infrastructural development.

C.4 Ensuring integrated land use planning, land conservation and rehabilitation.

C.5 Improving the management of water resources for agriculture and the development of water program using recycled water in agricultural development project.

C.6 Genetic resource for agriculture, two supprogrammes on plant genetic resources for agriculture (PGRA) and animal genetic resources for agriculture (AGRA)

C.7 Promoting integrated pest management with special emphasis on lower inputs of pesticides.

C.8 Promoting sustainable plant nutrition systems by focusing on research and extension services aimed at meeting farmer's immediate needs.

C.9 promoting diverse source of energy supply to rural areas and improving related support services.

[C.10 Promoting Food Security]

C.1 SECTOR POLICY REVIEW, PLANNING AND PROGRAMMING

Basis for Action

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.

Objectives

29. The major objectives of this programme would be: (a) strengthening of Ministry of Agriculture and/or Ministry of Planning or other appropriate institutions, in terms of financial as well as human resources; (b) strengthening the supporting information and higher education systems in the countries. This includes the information system for policy, planning and monitoring, institutional diagnosis for policy and strategy preparation and implementation and for project formulation; and (c) regional and international cooperation for the exchange of information and experience or incorporation of environmental and sustainable development considerations in sectoral policy analysis.

Activities

30. The activities would focus on reviewing the relationship to sustainable agricultural development of [both developed and developing countries and the related financial resources and technological requirements including appropriate technological transfer] of:

- a. key macro-economic variables, eg. foreign trade policies, price policies (including subsidies), interest rate, exchange rates, structural adjustment programmes, etc.
- b. population growth and distribution trends;
- [c. food security;]
- d. data base and information systems;
- e. natural resource use and impact of policies;
- f. environmental considerations (eg. major areas of environment concerns, land tenure policies, use of chemicals, etc);
- g. national capabilities in SARD policy analysis, formulation and monitoring.
- h. land tenure
- i. appropriate farm technology development and transfer

31. Based on the above analysis, sector review to recommend actions for integration of environment and sustainable development considerations into agricultural policies could be undertaken, and finance and human resources implications identified. The follow-up implementation could include:

- a. Activities based on policies for sustainable agricultural development;
- b. Activities for developing a capacity for SARD policy analysis, including institutions strengthening, training and monitoring and evaluation.

C.2 PEOPLES PARTICIPATION AND DEVELOPMENT OF HUMAN RESOURCES

Basis for Action

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 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, cooperation, providing information, and supporting user-based

organizations.

33. The stress is on change in 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.

Objectives

34. The main priority objectives could be : (a) the development of decentralization policies for rural development; (b) the concurrent adjustment of institutions; (c) the development of rural organizations and of the interactive processes with government institutions; and (d) development of human resources for the above purposes. (e) development of methodologies and programmes for the inclusion of women at all levels of the decision making process in the management of projects and programmes.

Activities

35. Information and capacity-building, with an emphasis on the role of voluntary organizations (VOs) in promoting power-sharing between central authorities and the local level. A major task would be to gather information on human resources, institutions and the roles of governments, local communities and VOs in social innovation.

36. National programmes to mobilize people and institutions towards full participation in achieving the local goals of sustainable agricultural and rural development. Support for this would include information collection and analysis; organization of farming population; re-organization or strengthening of rural institutions including farmers' cooperatives, agricultural extension services, technical and professional training, applied research and programme development.

37. Support to non-formal education or extension and technology transfer to farm populations. Investment would be required to augment existing infrastructures for human and institution development, particularly in environmentally fragile and neglected zones. Development of strategies and programmes to ensure the involvement of women within all programmes and projects; such strategies should be directed at NGO's, governments at both national and local and at informal community structures.

C.3 INTEGRATED PRODUCTION SYSTEM MANAGEMENT AND DIVERSIFICATION OF RURAL INCOMES

Basis for Action

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 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 opportunities could be identified and developed cottage industries, wildlife utilization, aquaculture and fisheries, non-farm activities such as light manufacturing, farm commodity processing, agribusiness, recreation and tourism, etc..

Objectives

39. The main objectives of the programme are to improve sustainable farm productivity, raise income, reduce risks and increase the welfare of rural families. The programme could focus on understanding farmers' circumstances and seeking their active involvement in improving their income and living conditions. Its emphasis could be on technology development for sustainable production systems based inter alia the indigenous technologies and the use of biological and ecological processes, including alternative farming methods such as crop rotation, organic manuring, and other techniques involving reduced use of agricultural chemicals. The efficient utilization of external inputs could be maximized and their use and impact on the environment minimized. The programme will focus on the improvement of living conditions.

40. The production systems management programme could enable a systems approach to identification, formulation and implementation. The overall scope is loosely defined to facilitate the inclusion of a variety of production systems (eg. agroforestry, aquaculture, and inland fisheries).

#### Activities

41. Preparation and implementation of programmes for Integrated Production Systems Management and Rural Income Diversification. The approach could be participatory, relying on involvement of rural people and building on their experience, aspirations and resource endowments. It would seek to decentralize decision-making by providing incentives and resources for initiatives by local communities and by enhancing their status and management capacity, including that of women.

42. Implementation of farming systems development methodologies will look for technologies and crop, livestock and tree systems which use biotechnology products, available biological diversity, promote biological control of pests and weeds and draw on multiple sources of nutrients. This would be achieved through dialogue with rural communities, farm surveys, on-farm testing of technologies and farm management methods as well as appropriate biosafety methods. The effects of technical innovations and incentives on farm-household incomes and well-being will be analyzed.

43. Flexible programmes and projects to address specific constraints and needs of agro-ecological zones. Linkages with other ICPF/SARD programmes could be developed, in particular with those related to input and output marketing systems, credit and small rural industries. The approach would result in a set of sustainable (socially, ecologically and economically viable) crop and livestock systems which are replaceable and can be extended through credit and investment programmes. programmes to collect and record indigenous knowledge and to provide services such as training, credit, specialized technical advice and protection of indigenous culture for indigenous people involved in economic activities in the forest, on the farm and off-farm such as in commerce and trading.

43. bis [Development and Improvement of Infrastructure] to be developed;

#### C.4 LAND RESOURCES CONSERVATION AND MANAGEMENT

44. The Sustainable Agriculture and Rural Development Programme constitutes two components, which are also related to Agenda 21's action to control land degradation. This are: i) Land use planning and ii) Land Conservation and Rehabilitation. This programme is related to the item on an integrated approach to planning and management of land resources.

#### I - Land Use Planning

#### Basis for Action

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 century. The need to increase food production to meet the expanding needs of the population will put an enormous pressure on all natural resources, including land. A concerted effort is needed to examine the technical solutions, build the knowledge base of land resources potentials and limitations as well as the human resources capacities and institutional structures that would enable wise decisions to be made at all levels regarding the allocation, management and conservation of land resources.

Objectives

46. Pilot or trial systems could be in place at the national and local levels to ensure optimum allocation of land and related resources for competing needs, as an essential basis for the design and application of integrated and comprehensive development programmes within each ecological zone, region or combination of physical, social and economic conditions. At each level, such pilot or trial systems would consist of three major components: information gathering and storage; application of methods and techniques for using the information to select and design land uses; and an appropriate institutional framework.

Activities

47. The following sequence could be applied at each level (national, provincial, local):
- a. Establishment and development of appropriate bodies responsible for land resources planning and use, conservation as well as systematic observation, and the necessary linkages between them.
  - b. Establishment and development of the necessary technical capacities to support these bodies for land resource evaluation, land zoning, land use planning, land use monitoring and control;
  - c. Establishment at each level of the appropriate methodology and procedures to identify development planning zones on ecological, physiographic, administrative, social and economic grounds; collect the necessary information for planning and programme development purposes; establish data storage systems; identify land use options in terms of products, production systems, input/output relationships, environmental impact; selection of the optimum combination of options in relations to goals and objectives; design of the implementation programme, including the necessary policy, economic and legal framework; provision of additional funds, if required; monitor the conditions and status of land, water and other natural resources.
  - d. Establishment at each level of the necessary consultative process with land users for the elaboration and acceptance, after modification, of the proposed programmes, with their attendant policies legal and economic instruments.
  - e. Responsibility for land resources planning, conservation and monitoring, the necessary technical capacities to support land resources evaluation, land zoning land use planning, land use monitoring and control, and the necessary linkages between them should be assigned to existing bodies wherever possible. Adequate support must be provided to fulfil the assignment. New bodies should be created only as a last resort.

ii - Land Conservation and Rehabilitation

Basis for Action

48. Land degradation is the most important environmental problem facing both developed and developing countries. The problem of soil erosion is particularly acute in developing 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 to produce more food, fibre and fuel is growing. Efforts to control soil erosion, 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 should provide long-term solutions to the land degradation problems, it is urgent to arrest land degradation and launch land conservation and rehabilitation programmes in the most critically affected or vulnerable areas.

Objectives

50. The national programmes can only increase in numbers, size and scope as staff are trained, experience is gained and institutions are developed. The main objectives in each country could be the assessment and mapping with particular attention to most critical areas; development of national policy, priorities, programmes and strategies for land conservation and rehabilitation; development of related research capacities and implementation capacities, including staff training; establishment of a field advisory support service to land users (including staff training); launching rural community-led programmes of land conservation and rehabilitation.

Activities

51. National action could include:
- a. improving the national inventory of land resource conservation and rehabilitation requirements, establishment of a land resource degradation database, investigation of causes of land misuse and identification of priorities;
  - b. encouraging participation by helping land users to launch programmes of land conservation and rehabilitation, organizing demonstrations providing technical advice and training and promoting awareness of land productivity and conservation issues;
  - c. developing national institutions to support high level advisory commission for land resource conservation and rehabilitation, strengthen government conservation services, encourage work of NGOs, create legal framework, review workforce and training programmes, identify research needs and develop nation-wide land conservation programmes.
  - d. Removal of policy distortion which leads to land degradation.

Note: These activities should include actions on land-based sources of coastal zone and ocean pollution and related pesticides. Refer to Agenda 21 proposals worked out by Working Group II.

52. Regional networks can facilitate experience sharing and provide effective information exchange, advanced training in specialised areas and cooperation in conservation research.

53. At international level, adequate, new and additional financial support for pilot or trial efforts would need to be assumed and coordinated work

organized between technical assistance agencies, financing institutions and NGOS.

#### C.5 WATER RESOURCES FOR AGRICULTURE

##### Basis for Action

54. Agriculture is the main user of fresh water. Yet in many areas it is the limiting factor to increased agricultural production because of shortages, excess or waste. Water wastage in agriculture is not only one of the main causes of unsustainable production but also a cause of land degradation (erosion, waterlogging, soil salinization), water pollution, water-borne diseases, disasters (floods) and other environmental problems. Most present irrigation systems do not meet the criteria of sustainability. This programme is related to action under Freshwater Resources presented to the Preparatory Committee and to the Dublin Conference on Water and the Environment.

##### Objectives

55. The overall objective of the International Action Programme on Water and Sustainable Agricultural Development (IAP-WASAD) is to assist in the achievement of sustainable agricultural development through optimum use and conservation of water. More specifically, the objectives of the programme are to assist governments to develop or update a national water use policy within the framework of the overall economic and agricultural development plan, recognizing the demand for freshwater by other economic sectors; develop an integrated agricultural water use and conservation strategy to support sustainable agricultural development, encompassing crop and livestock production, fisheries, forestry and other intersectoral issues related to agricultural development; formulate and implement sustainable water programmes aimed at fulfilling the national goals of food security and self-reliance, import substitution, crop diversification, etc.; strengthen institutions and develop human resources to support national programmes on agricultural water use and conservation.

##### Activities

56. A programme at regional, sub-regional and country levels would enable comprehensive planning, inter-sectoral collaboration, identifying projects that support one another, minimize overlap and conflicts, and ensure optimum utilization of financial and human resources. The elements of this programme could be:

- a. National water use policy would include estimation of the nation's total surface and groundwater resources and allocation of water to the agricultural sector, including the re-use of wastewater, water legislation, water rights and water conservation.
- b. Agricultural water use and conservation strategy would include rainfed agriculture and irrigated farming in food production; large-scale versus small-scale water programmes; conservation programmes to support rainfed agriculture, livestock production, aquaculture and agroforestry; rehabilitation of existing irrigation projects and development of new ones.
- c. Development and implementation of water programmes, would include evaluation of irrigation and rainfed agriculture development projects; feasibility studies and projects to rehabilitate existing projects or develop new projects; introduction of new technologies to increase crop yields and water use efficiency; prevention and control of waterlogging and salinity, including studies and pilot projects in reclaiming waterlogged and saline areas; protection against agricultural and industrial pollution as well as intrusion of sea water; feasibility of

safe use of treated municipal effluent in crop production and recharge of aquifers and pilot projects in this area; water harvesting; programmes to predict and manage drought.

- d. Institutional strengthening and human resources development would include review and strengthening of institutions that support water resources development programmes; development of mechanisms for inter-sectoral collaboration; adaptive research, data collection, monitoring and extension services; review and development of existing human resources; increase the number of trained persons; develop technical guidelines and extension bulletins to support development programmes.

#### C.6 CONSERVATION AND UTILIZATION OF GENETIC RESOURCES FOR AGRICULTURE

##### Basis for Action

57. This Programme is part of a set of activities on biodiversity conservation and use for food, agriculture, forestry and fisheries and of the overall International Cooperative Programme Framework for SARD. It contributes to addressing the issue of food security. This programme includes plant and animal genetic resources and is therefore described as two separate components, and is related to actions presented to the Preparatory Committee under Biological Diversity.

##### i - Plant Genetic Resources for Sustainable Agriculture

##### Basis for action

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 this genetic materials.

##### Objectives

59. The primary objective is to safeguard the world's genetic resources while preserving it 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 plasam 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.

60. 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 plasam banks, and biotechnology; further evaluation and use of plant genetic resources; and realization of equitable sharing of benefits from the use of plant genetic resources for biotechnology products.

##### Activities

61. The main activities could focus on:
  - a. the development and strengthening of institutional capacity, structures and programmes for conservation and use of PGRA;



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- b. establishment of ex situ base collection networks;
  - c. strategies for developing networks of in situ conservation areas and use of tools such as ex situ collections, germ plasam banks, and biotechnology. [proposal: omit]
  - d. establishment of global technological exchange, information and early warning systems on PGRA;
  - e. preparation of periodic State of World's Report on PGRA;
  - f. organization of a Fourth International Conference on PGRA;
  - g. [preparation of a rolling global Plan of Action on PGRA;] [proposal: omit]
  - h. [development of mechanisms to realize Farmers' Rights;] or alternatively, add [development of mechanisms on breeders' rights;] omit
  - i. [development of further legal instruments, as appropriate;] omit
  - j. strengthening of research in the public domain on PGRA utilization with the objectives of sustainable agriculture and rural development in view;
  - k. development of multiplication/propagation particularly in developing countries, exchange and dissemination facilities for PGRAs (seeds and planting materials); monitoring, control and evaluation of plant introductions.
62. Further analysis of needs and gaps in the Global System on PGRA; Consolidation of activities and monitoring progress will be needed subsequently.

### ii - Animal Genetic Resources for Agriculture

#### Basis for action

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

64. The breeds of major farm animals and domesticated grazing animals, should be preserved through networks of in situ conservation areas and use of tools such as ex situ collections, germ plasam banks, and biotechnology. These breeds should be characterized and evaluated. Genetic material and related information should be stored and made accessible to users. Staff should be trained in conservation and use of animal genetic resources. Presently under-utilized breeds, including those of semi-domestic animals, should be more widely exploited.

#### Activities

65. At national level, preparation and/or completion of national inventories of available animal genetic resources. Cryogenic storage could be given

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priority over characterization and evaluation. Training of nationals in conservation and assessment techniques would be given special attention.

66. Further development of Regional Animal Gene Bank capacities to store material and support the above national activities is necessary. Regional assessment and monitoring of breeds flow across national boundaries could be promoted. Information and genetic material exchange with national programmes including in the private sector and research institutions could be further developed.

67. At the global level, priorities could be: processing, storage and analysis of animal genetic data; this would include production of a World Watch Kit and Early Warning of endangered breeds; global assessment, 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.7 INTEGRATED PEST MANAGEMENT IN AGRICULTURE

##### Basis for action

68. World food demand projections indicate an increase by 50% by the year 2,000; more than double again by 2050. Conservative estimates put crop losses caused by pests between 25 and 50%. 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 had adverse effects on the farm budgets, human health and the environment as well as international trade. New pest problems continue to develop. Integrated Pest Management which combines biological techniques, genetic 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 the establishment of appropriate pesticide management to allow for pesticide regulation and control including of trade, and for the safe handling and disposal of pesticides particularly those that are acutely toxic and persistent. This programme is related to action under toxic chemicals presented to the Preparatory Committee.

##### Objectives

69. By the year 2000 each country could have reliable plant protection and animal health services; integrated pest management techniques within the reach of farmers; mechanisms to control distribution and use of pesticides; and for the implementation of other aspects of the FAO International Code of Conduct on Pesticides; operational and interactive networks among farmers, research and extension services for the promotion of integrated pest management; under the sponsorship of FAO and in cooperation with other research institutions and the aid-providing institutions, a consultative process should be in place to respond to national and regional needs to develop integrated pest management programmes. mechanisms to control distribution and use of pesticides and for implementation of other aspects of FAO international Code of conduct on Pesticides. A consultative process should be in place to respond to national and regional needs to develop integrated pest management programmes. At least pilot programmes should be in place to put integrated pest management techniques within the reach of farmers. Networks among farmers, extension service and research institutions will support these programmes. Reliable plant protection and animal health services employing integrated pest management should be offered as they become available.

##### Activities

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70. These could include:
- a. Development of national systems and institutional capacities to control the import, distribution and use of pesticides;
  - b. Formulation and implementation of strategies for integrated pest management systems which will aim at improving yields, farmers' profitability and minimizing the impact of pesticides on human health and the environment;
  - c. Strengthening of national agricultural research and extension programmes and involvement of farmers to deal effectively with integrated pest management issues;
  - d. Strengthening of the international agricultural research system to support countries with information, technologies, training, institutional strengthening leading to a comprehensive programme on components of integrated pest management;
  - e. Advice to international, regional and national programmes in the development and application of integrated pest management for those crops where there is pesticide overuse;
  - f. Adoption of policies to phase out the use of acutely toxic and persistent pesticides and to discontinue any form of direct or indirect subsidy on the purchase and utilization.

Note: These activities should include actions on land-based sources of coastal zone and ocean pollution and related to pesticides. Refer to Agenda 21 proposals worked out by Working Group II.

#### C.8 SUSTAINABLE PLANT NUTRITION

##### Basis for Action

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 3 or 4, the net loss being estimated at some 10 million tonnes 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.

##### Objectives

72. The programme has to be seen in the framework of the "Integrated Plant Nutrition Systems" (IPNS), an approach which is economically viable, environmentally sound and socially acceptable. It would aim at ensuring a sustainable supply of plant nutrients to increase future yields without harming the environment, thus maintaining national soil productivity. It would seek to optimize possible plant nutrient sources, organic (including biological nitrogen fixation) and mineral, in an integrated approach. The objectives of the programme could be to increase and sustain soil productivity to meet present and future demands; and to enhance the quality of land resources, and protect water resources, avoiding plant nutrient depletion.

Activities

73. This programme could study plant nutrient depletion and its impact on soil productivity; formulate national strategies and targets for the maintenance and improvement of soil productivity; alternative options for plant nutrient supply to meet projected demand; practices to increase the efficiency of plant nutrient applications; national fertilizer policies.

74. Activities could be undertaken within country and/or regional projects in three phases:

- a. an average six-month phase study to establish the status of the soil fertility and plant nutrient depletion and the sustainability of current plant nutrition practices and techniques, and to formulate national strategies and proposals for sustainable plant nutrition;
- b. a ten-year project of technology development and dissemination, leading to capacity-building and supply of plant nutrients (soil amendments and mineral fertilizer) to counteract plant nutrient depletion and enhance agricultural production on a sustainable basis. This second phase would gradually lead to a third interactive process involving farmers, research and extension services. Such projects could be implemented on an individual country basis, sub-regional level, sub-continent level or specific group of countries.
- c. monitor the nutrient off-take from an adequate sample of representative farms and the nutrient status of the crops and soils from those farms to measure the impact of plant nutrient management programs and actual farm practice.

C.9 RURAL ENERGY

Basis for Action

75. Energy supplies in many countries are not commensurate with their development needs, 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 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. This programme is related to actions under Energy and Forests presented to the Preparatory Committee.

Objectives

76. Two types of projects would be required at the country level and municipal level with the objective of providing the necessary energy for household, agriculture and agro-industry needs; and to assist in the energy transition in rural communities from informal markets based on wood fuels to a better structured one based on more diversified sources of energy. Such transition should take into account whether such source of energy could be affordable by the rural poor.

Activities

77. The proposed programme could be made operational by:

- a. Establishment of a high level task force to prepare an Approach Paper

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for Rural Energy for the country. This phase may extend up to six months.

- b. Preparation of micro-level pilot projects in one or more selected areas and preparation of area-based integrated rural energy plans and project documents for these areas. Establish evaluation and foundation nurseries to produce planting stock of appropriate indigenous and exotic species.
- c. Implementation of the pilot projects and development of a suitable institutional mechanism at the country level and in the selected areas to implement and monitor the projects. The two phases for preparation and implementation of the pilot projects may extend from 1-2 years.
- d. Extension of the pilot integrated rural energy projects to other micro-regions in a phased manner, planning, implementation and monitoring of the integrated rural energy planning programme; organizing man-power development and training programme for professionals and others involved in the programme at different levels; introduction of the computer modelling system for the rural energy sector. This phase could eventually result in a regular operational programme.



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Third session  
Geneva, 12 August-4 September 1991  
Working Group I  
Agenda item 3

### LAND RESOURCES

#### Revised draft decision submitted by the Chairman

##### The Preparatory Committee,

Having considered document A/CONF.151/PC/63 on land resources, including the programme areas protection and management of fragile ecosystems, integrated approach to planning and management of land resources and sustainable agriculture and rural development in the context of Agenda 21;

1. Notes that there is broad agreement on the programme areas contained in document A/CONF.151/PC/WG.I/CRP.12/Rev.1, annexed to this decision, as well as on the subjects of basis of action, objectives and activities within the programme areas;

2. Notes that the section on fragile ecosystems requires further elaboration, and that it has been agreed to develop separate programmes with regard to all mountains of the world, as contained in the proposals submitted by Governments, as well as in document A/CONF.151/PC/WG.I/L.23;

3. Notes that the section on an integrated approach to planning and management of land resources requires further elaboration and requests that the views expressed by Governments and proposals submitted by delegations be incorporated;

4. Notes that issues related to programmes on water resources for agriculture, genetic resources, integrated pest management and rural energy have not been discussed in detail; partly because these issues also touch on other agenda items of the Preparatory Committee;

5. Invites the Secretary-General of the United Nations Conference on Environment and Development, with regard to the means of implementation of the programmes agreed, to integrate them according to decision ..... of the Preparatory Committee on the general implementation of Agenda 21;

6. Invites Governments to submit any additional comments to document A/CONF.151/PC/WG.I/CRP.12/Rev.1 in writing to the Secretariat of the United Nations Conference on Environment and Development before 1 October 1991;

7. Decides to revert to these issues and to the final consideration of land resources in the general context of Agenda 21 at its fourth session.

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Agenda item 3 (c)

### DESERTIFICATION AND DROUGHT

#### Revised draft decision submitted by the Chairman

The Preparatory Committee,

Having considered document A/CONF.151/PC/62 relating to the issue of desertification and drought in the context of agenda 21,

1. Notes that there is a broad agreement on the contents of A/CONF.151/PC/WG.1/L.29 and the special annex to this decision, in particular with regard to the broad objectives and programme areas, and that the different activities proposed need further elaboration and thereafter be considered by the Preparatory Committee at its fourth session;

2. Notes that while the problem of desertification is one of the central environmental and developmental issues in its own right, it is also part of the more general problem of how to preserve and manage fragile ecosystems;

3. Invites once more the United Nations Environment Programme to implement the provisions of paragraphs 6 and 7 of General Assembly resolutions 44/172 A and B of 19 December 1989 related to the progress achieved in the implementation of the PACD;



4. Requests the Secretary-General to further elaborate proposals for action on the subject of desertification and drought taking into account relevant new developments, in particular within the framework of UNEP; it being understood that the international systems need to give higher priority to desertification;

5. Invites the Secretary-General of the United Nations Conference on Environment and Development to give detailed proposals for the means and timing of implementing the programmes agreed integrating its decision ... on the general implementation of agenda 21;

6. Requests the Secretary-General of UNCED further to his report in document A/CONF.151/PC/62, to submit to the Preparatory Committee at its fourth session a summary of the results of the financial and technical study requested by the General Assembly from UNEP as well as information on the action taken within the framework of the Sahara/Sahel observatory, as well as the recommendations on the financial, technical and institutional means of implementing the UNCED decisions on desertification control;

7. Decides to consider at its fourth session the action to be taken on desertification within the general framework of agenda 21. Due to the particular importance of these problems, they will be considered as the first item by Working Group I;

8. Invites Governments to submit any additional comments to document A/CONF.151/PC/WG.I/L.29 in writing to the secretariat of UNCED before 1 October 1991.

Annex

The following programme areas are proposed to combat desertification and drought:

Proposed programme areas

- (a) Strengthening the knowledge base and developing information and monitoring system of fragile ecosystems and the economic and social aspects of these systems.
  - (b) Intensifying afforestation and reforestation activities, combating land degradation, support of the management of biotic resources.
  - (c) Developing and strengthening programmes for integrated development actions and alternative livelihood systems in areas prone to desertification.
  - (d) Encourage and support popular participation and environmental education.
  - (e) Design programmes to cope with environmental refugees.
  - (f) Eradication of poverty.
  - (g) Integrating anti-desertification programmes into national development programmes and/or national environmental action plans.
  - (h) Developing and improving an integrated approach to planning and management of land resources already desertified or subject to desertification.
  - (i) Develop comprehensive drought preparedness and drought relief schemes for drought prone areas.
-



## CONSERVATION OF BIOLOGICAL DIVERSITY

### SUMMARY

Deliberations at the third session focused around three major issues: the relationship between biological diversity and biotechnology and whether or not the two issues should be dealt with as one; the relationship between the development of the biological diversity component of Agenda 21 and the biological diversity negotiations process; and means of implementing the Agenda 21 activities. Other issues that were raised included the sovereign rights of states over their biological resources and the need to compensate those people who had conserved, will conserve or are developing the biological resources.

Detailed consideration of the Agenda 21 document did not occur at this session but will await the Fourth Session. Countries were asked to submit to the Secretariat prior to 1 October comments, additions, and amendments for this component of Agenda 21.

### Documentation

- |                               |   |
|-------------------------------|---|
| A/CONF.151/PC/42/Add.4        | - Conservation of Biological Diversity: Options for Agenda 21                           |
| A/CONF.151/PC/66              | - Conservation of Biological Diversity  |
| A/CONF.151/PC/WG.I/L.28       | - Conservation of Biological Diversity: Options for Agenda 21 amendment to PC/42/Add.4) |
| A/CONF.151/PC/WG.I/L.37/Rev.1 | - Conservation of Biological Diversity: Agenda 21- Decision                             |

### PREPCOM DISCUSSION

The primary Canadian objectives were:

1. Progress on the key cross-sectoral issues primarily through debate on other related agenda items (biotechnology, technology transfer, financial mechanisms) with a view to applying this progress to the biodiversity convention negotiations.
2. Consideration of the linkages among: (a) work on biodiversity measures being undertaken by PrepCom, the development of the global biodiversity conservation strategy, and the negotiation of the biodiversity convention; and (b) the proposed instruments on biodiversity, climate change and forests.

### PREPCOM DISCUSSION

The deliberations on this issue began with a presentation by the UNCED Secretariat of the material that comprise the PrepComm III documents on this issue including the options for Agenda 21. This was followed by a report by Ambassador Sanchez,

chairman of the INC-BIOD, on the progress being made towards a convention on biological diversity. Ambassador Kjellen, chairman of UNCED WGI, during his introduction suggested that PrepCom should direct its work on this issue so that it supplements and supports the INC-BIOD process.

Developing countries, as they had under all the other issues, stressed the need for identification within Agenda 21 under each programme area, the means and mechanisms for implementation of the proposed activities. In terms of specific suggestions, the developing countries called for:

- recognition of farmers' and breeders' rights;
- recognition that biological resources are a basic component of national heritage (sovereignty);
- the need for compensation for their activities to conserve their biological resources and for the use of their biological resources (supporting mechanisms);
- the need to identify opportunity costs associated with conservation of biodiversity and to transfer financial resources to developing countries to compensate them for the loss of opportunity costs;
- recognition of the high density of biodiversity outside of forests;
- including in Agenda 21 the development of guidelines for a biodiversity repository; and
- concern that launching an inventory could be the basis for further interference.

Several developing countries questioned the separation of biodiversity from biotechnology within the UNCED PrepCom process and called for the chair to integrate these issues for future sessions.

Several countries expressed concern that the UNCED process not duplicate or pre-empt the INC-BIOD process. They called for action to compliment and support the convention on biological diversity and suggested that the documents prepared for this session of PrepCom be forwarded to the INC-BIOD Secretariat.

Several other suggestions were put forward by both developed and developing countries including:

- a call for urgent action to conserve biological diversity and therefore reconsideration of the suggested dates identified within proposed programme areas, however, at the same time, several interventions called for more realistic (i.e., achievable) goals;
- some countries could not support specific targets for the amount of protected areas;
- the need for activities which could support the strengthening of local capacity to conserve and sustainably use their biological resources including the need for action directed at the local level such as the development of research facilities in those countries which had the biological resources;
- the need for Agenda 21 to include specific action directed at examining the impact of human activities on biological diversity;
- the need to address the link between actions directed at conservation of biodiversity and indigenous peoples including the full integration of traditional knowledge;
- the proposed code of conduct for collectors of biological resources raised considerable concern with some countries calling for a legally binding agreement (G-77);

- in addition to setting aside protected areas, activities which support integrated resource management that also include biological diversity objectives should be part of Agenda 21;
- the need to consider the importance of fauna, coral reef, and aquatic life as part of the biodiversity issues with specific action within Agenda 21; and
- priority should be given to in-situ conservation of biodiversity complemented by ex-situ conservation.

Canada in its intervention called for more analytical work regarding the potential linkages among the issues of biodiversity conservation, climate change and forests, and on how measures taken to address one issue can impact on other issues. It also welcomed the recognition of the role of women and indigenous people and the potential value of traditional knowledge in the conservation of biodiversity and the need to transfer this knowledge.

The time available for further discussion of this issue at the third session was limited. An amended version (L.28) of the options for Agenda 21 document was produced by the secretariat but was not considered in detail by the PrepCom.

Further deliberations on this issues centred around the preparation of the decision document with the WGI chair steering the working group away from considering substance and concentrating on process. He emphasized that the working group's task with respect to this issue was to ensure that the resulting decision properly reflected the results of our discussions at this third session and the desires of the working group as to the direction of our deliberations in preparation for and at the fourth session.

## OUTCOMES AND ASSESSMENT

The resulting decision requests the Secretary General to transmit the document L.28 to the INC-BIOD, to take into consideration the views expressed at the Third Session in the elaboration of Agenda 21, and to integrate into the programme areas of Agenda 21 provisions for the means of implementation. Included in the decision is a request that the Secretary General without preempting or duplicating the word of the INC-BIOD, to follow the work of the negotiating committee and to keep it informed of the interconnections between relevant aspects of biological diversity and other environment and development issues as they emerge from the UNCED process. The decision also recognizes that the relationship between biotechnology and biological diversity will need to be considered in more detail at the fourth session.

The decision identifies the following programme areas as comprising the conservation of biological diversity component of Agenda 21:

- provide information on biodiversity;
- maximize and spread the benefits of biodiversity;
- improve the conservation of biological resources; and
- enhance the capacity to manage biodiversity.

The decision opens the door for additional submissions by governments on the programme areas and/or objectives and activities. These submissions should be sent to the Secretariat not later than 7 October 1991.



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Agenda item 4

### CONSERVATION OF BIOLOGICAL DIVERSITY

#### Options for Agenda 21

#### Revised draft decision proposed by the Chairman

#### The Preparatory Committee.

Having regard to the report of the Secretary-General of the Conference on the Conservation of Biological Diversity (A/CONF.151/PC/66) and on the Options for Agenda 21 (A/CONF.151/PC/42/Add.4), as well as the oral report by the Chairman of the Intergovernmental Negotiating Committee for a Convention on Biological Diversity regarding progress on the negotiations,

1. Requests the Secretary-General of the Conference to transmit the Chairman's Summary and Proposals for Action (A/CONF.151/PC/WG.I/L.28), suitably represented as an amendment to A/CONF.151/PC/42/Add.4 to the Intergovernmental Negotiating Committee for a Convention on Biological Diversity;

2. Also requests the Secretary-General of the United Nations Conference on Environment and Development, without pre-empting or duplicating the work of the Intergovernmental Negotiating Committee, to follow the work of that Committee, and to keep it informed of the interconnections between relevant aspects of biological diversity and other environment and development issues as they emerge from the UNCED process, in particular the elaboration in Agenda 21;

3. Requests the Secretary-General to take into consideration the views expressed at the third session of the Preparatory Committee and the proposals submitted by Governments in the elaboration of Agenda 21 on the Conservation of Biological Diversity, for consideration at its fourth session, recalling the programme areas in paragraph 6 of A/CONF.151/PC/WG.I/L.28:

Programme A - Provide information on biodiversity

Programme B - Maximize and spread the benefits of biodiversity

Programme C - Improve the conservation of biological resources

Programme D - Enhancing the capacity to manage biodiversity.

Additional submissions by Governments should be made available to the secretariat not later than 7 October 1991;

4. Requests the Secretary-General to integrate in the proposals under paragraph 3 above, provisions for the means of implementation in accordance with the general decision of the Preparatory Committee on Agenda 21;

5. Agrees that the ~~question of the~~ relationship between biological diversity and biotechnology will be considered <sup>in more detail</sup> again at its fourth session;

6. Decides to revert to the issues covered by this decision for final consideration at its fourth session.

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## ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY

### SUMMARY

Deliberations at this session included discussions on:

- the need to identify means for promoting the transfer of technology and financial resources to support biotechnological developments;
- whether or not this issue should be considered in combination with biological diversity or separately with developing countries (primarily lead by the Latin Americans) calling for their amalgamation;
- the development of biotechnological capabilities in those countries which had the biological resources.

Detailed consideration of the Agenda 21 document did not occur at this session but will await the Fourth Session. Countries were asked to submit to the Secretariat prior to 1 October comments, additions, and amendments for this component of Agenda 21.

### Documentation

- |                               |  |
|-------------------------------|--|
| A/CONF.151/PC/42/Add.5        | - Environmentally Sound Management of Biotechnology: Options for Agenda 21                                       |
| A/CONF.151/PC/67              | - Environmentally Sound Management of Biotechnology  |
| A/CONF.151/PC/WG.I/L.26       | - Programme for the generation and transfer of biotechnologies and their sustainable use in developing countries |
| A/CONF.151/PC/WG.I/L.30       | - Environmentally Sound Management of Biotechnology: Options for Agenda 21 - Amended                             |
| A/CONF.151/PC/WG.I/L.38/Rev.1 | - Environmentally Sound Management of Biotechnology: Options for Agenda 21 - Decision                            |

### PREPCOM DISCUSSION

The Canadian objectives were the following:

1. Promote a substantive discussion of the health and safety issues related to biotechnology and recognize the extensive work already going on internationally, particularly the work of the OECD.
2. Promote biotechnology research related to the environment especially in areas where biotechnology can: (a) reduce stresses on the environment (e.g., the need for less energy inputs, less use of chemical herbicides and pesticides alternative products of raw materials); (b) contribute to environmental

mitigation (e.g., use in oil spills and other chemical clean-ups and in clean-up of industrial effluents before their release).

3. Minimize and, in any case, resist linkages between biotechnology and biodiversity beyond the question of those biotechnologies fairly directly related to the conservation of biological diversity.

Following an introduction of the biotechnology issue by the Secretariat, the interventions began with the US stating that the approach taken by the UNCED Secretariat would not advance the aims as stated in 44/228. Furthermore, the US stated that the biotechnology document was obsolete and inaccurate and thus presented an obstacle to making progress on this issue within this and related fora. They highlighted the inappropriate emphasis put on risk of biotechnology, the undue burden placed on biotechnology to solve the world's problems and the unrealistic time-frame allotted for activities (also noted in Canada's intervention and by a number of other countries).

The Mexican delegation also indicated that the Options for Agenda 21 document was unacceptable since many of the proposals when implemented would lead to environmental degradation. Mexico also expressed its concern that the document did not address the need to promote means for transfer of technology and resources to developing countries who needed access to biotechnology for health, food and industrial processes. These latter two concerns were supported by a number of developing countries.

There was a reiteration by the developing countries (led by the Latin Americans) for the need to address biodiversity and biotechnology as a single issue within UNCED, sighting the fact that they were being discussed as a single issue within the INC-BIOD process. This argument was countered by a number of developed countries who noted that the biotechnology issue involved more than just the conservation and sustainable use of biological diversity. The Chair, in responding to the call to merge these two issues noted that, as identified in 44/228, these issues will remain separated, however, their presentation in the final version of Agenda 21 may be merged depending on the programmes adopted. This approach was not acceptable to Mexico who introduced the need to merge these issues and who could not see the logic in separating biodiversity and biotechnology. Sweden was the only developed country which supported the merging of these topics within UNCED.

Egypt stated that there was no basis for a discussion of intellectual property rights when rights were not given to local populations who have conserved/developed the biological resources required for biotechnology. Other specific concerns expressed by the developing countries included:

- a call for compensation to local populations who had conserved/developed biological resources;
- priorities for biotechnological research were being set outside the countries which held the biological resource and mostly by the private sector to which developing countries markets were not all that attractive; and
- development of a means and mechanisms to deal with the problems posed by intellectual property rights.

A number of countries, both developed and developing, noted with interest and concern the proposal for a "Biotechnology Consortium for Development" and called for a greater elaboration of the concept before lending their support or dismissing it.

The time available for further discussion of this issue at the Third Session was limited. An amended version (L.30) of the options for Agenda 21 document was

produced by the secretariat but was not considered in detail by the PrepCom. Further consideration of this issue and its options for Agenda 21 will await the Fourth Session of the PrepCom.

Further deliberations at the Third Session on this issues centred around the preparation of the decision document with the WGI chair steering the working group away from considering substance and concentrating on process. He emphasized that the working group's task with respect to this issue was to ensure that the resulting decision properly reflected the results of our discussions at this Third Session and the desires of the working group as to the direction of our deliberations in preparation for and at the Fourth Session.

## **OUTCOMES AND ASSESSMENT**

The resulting decision is similar in structure and content to that for biological diversity. It requests the Secretary General to transmit the document L.30 to the INC-BIOD, to take into consideration the views expressed at the Third Session in the elaboration of Agenda 21, and to integrate into the programme areas of Agenda 21 provisions for the means of implementation. This decision, like that for biological diversity, calls for the Secretary General to keep the INC-BIOD process informed of the interconnections between biotechnology and other environment and development objectives and recognizes that the relationship between biotechnology and biological diversity will need to be considered in more detail at the Fourth Session.

The decision identifies the following programme areas as comprising the conservation of biological diversity component of Agenda 21:

- increase plant and animal productivity;
- promote improved human health;
- enhance environmental protection;
- enhance safety and develop international mechanisms for cooperation; and
- enabling mechanisms for the environmentally sound application of biotechnology.

The decision opens the door for additional submissions by governments on the programme areas and/or objectives and activities. These submissions should be sent to the Secretariat not later than 7 October 1991.



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Working Group I  
Agenda item 5

### ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY

Proposal by the delegations of Bolivia, Colombia, Costa Rica,  
Ecuador, El Salvador, Nicaragua, Peru and Venezuela

Programme for the generation and transfer of biotechnologies  
and their sustainable use in the developing countries

#### Bases for action

The developing countries, with their rich biological diversity, have not profited from the recent advances in biotechnology, a field which has its foundation in that very diversity. Nor have they benefited from the economic potential of the sustainable use of their biodiversity, due to the application of investment and development models which not only restrict their access to research but also disregard the positive contributions made by the traditional knowledge and practices from which mankind has benefited.

#### Objectives

The object of this programme is to design and implement mechanisms for the generation and transfer of biotechnologies and their sustainable use and exploitation in the developing countries, for which purpose it is necessary to consider the following specific points:

Identification and establishment of appropriate means for the generation and transfer of biotechnologies;

Strengthening of national institutions and promotion of prompt and growing international cooperation;

Exploitation of the genetic potential of species and achievement of their sustainable use;

Rapid training of highly qualified human resources in the developing countries.

#### Activities

(a) Promotion of the organization of national systems for the generation of biotechnologies that comprise government, academic and private institutions;

(b) Design and implementation of financial mechanisms promoting biotechnological research for the sustainable exploitation of biological diversity;

(c) Execution of programmes for training and exchange of knowledge on traditional biotechnologies;

(d) Research and development in respect of new technologies directed towards the sustainable exploitation of biological resources through international cooperation on favourable conditions for the countries that are rich in biological diversity;

(e) Promotion of exchanges of biotechnological information through channels for cooperation, particularly horizontal and regional;

(f) Improvement and strengthening of national, subregional and regional institutions through on-the-spot research into biological resources;

(g) Design and implementation of mechanisms for the training and participation of national scientists and the population in the generation and sustainable use of biotechnology;

(h) Development of biotechnological research programmes to guarantee environmental sanitation, health, food security and conservation of biological diversity;

(i) Design and implementation of mechanisms to resolve the current situation regarding intellectual property rights, which guarantee the protection of traditional farmers and native varieties and strains; and

(j) Creation of an endogenous capacity to evaluate, adopt and introduce biotechnologies in accordance with national needs and priorities.



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Agenda item 5

### ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY

#### OPTIONS FOR AGENDA 21

##### Chairman's Summary and Proposals for Action

##### Introductory remarks

1. At this stage of preparation of Agenda 21, and as with the various other issues of the Working Group under discussion, two main considerations appear to emerge as background to the further work of the Working Group on the proposals made for amending document A/CONF.151/PC/42/Add.5:

(a) It is not yet possible to define with precision the exact shape of Agenda 21. Major interlinkages - even with such closely-related issues on the UNCED agenda as biodiversity, science, agriculture, health, freshwater, forestry, desertification and others - remain to be clarified and developed; costing exercises have not yet been carried out; essential cross-sectoral issues such as financing and transfer of technology are still to be discussed in the plenary; and institutional aspects will be considered by WG III, among other matters. In particular, the crucial integration of development and environment into a coherent action framework cannot yet be finalized.

(b) It is nevertheless of crucial importance for negotiations of the various elements of Agenda 21 to be taken as far as possible at the current session of the Preparatory Committee. All agreements remain provisional and ad referendum at this stage: final agreement will be possible only when the shape and structure of Agenda 21 as a whole is known. But it is possible to start preparing the building blocks even at this stage. It is therefore essential for Governments to be able to negotiate firm texts to clarify areas of agreement and to identify areas requiring further negotiation.

2. This paper is intended to set the stage for the negotiation and to provide a firm background for the negotiating texts. Part I is a summary of the main points to emerge from the debate on A/CONF.151/PC/42/Add.5. This text remains background material on the Chairman's own responsibility and is not submitted for negotiation.

3. Part II contains a preliminary draft text to be negotiated. Informal consultations in various forms would help to facilitate agreement as far as possible during this session of the Preparatory Committee.



PART I

BACKGROUND COMMENTS ON THE PRELIMINARY DRAFT TEXT TO REVISE  
THE PROPOSALS CONTAINED IN A/CONF.151/PC/42/Add.5

4. The interesting discussion on A/CONF.151/PC/42/Add.5 revealed a general measure of support for the overall shape of the document, though a number of delegations suggested consolidating it with the Options paper on Biodiversity. It should be possible to accommodate the many helpful comments and suggested amendments within the existing structure. A number of detailed amendments were proposed for the specific programme areas. The preliminary draft text at Part II of this document is provided for the purpose of facilitating the negotiation of an agreed text.

5. Several general points emerged on the overall content of the document:

(a) Biotechnology is a relatively new and rapidly-expanding area of human activity at the leading edge of scientific and technological development, with all the concomitant potential for meeting the development needs which that engenders. It therefore has a particularly important role in the UNCED process. At this stage the full extent of its potential remains uncertain, however, so the expectations raised in the document need to be set at realistic levels. Biotechnology needs to be utilised to serve the needs of development, but is not a panacea.

(b) At the same time, the special characteristics of the technologies involved point to the need to ensure that risk assessment and management procedures (involving inspections, impact studies, research, new national institutions or other possibilities) should be developed as an integral element of Agenda 21.

(c) The potential problems associated with a relatively new area of activity of this kind, in particular the technological, economic, and commercial implications are brought into sharper focus by its links with biological and genetic resources. Biotechnology relies to a certain extent on the custodians of biological and genetic resources, primarily in the developing countries; it highlights the issues surrounding the question of intellectual property rights; and it raises questions about standard setting within different parts of the international community.

(d) The links between biotechnology and biodiversity, and by extension with the negotiating process for a convention on biodiversity - need to be recognised more explicitly within the Agenda 21 Options document. This should also take more account of other important sectoral and cross-sectoral issues identified within the UNCED process, covering, among others, the forest, soil, freshwater and marine sectors.

(e) The importance of international action to develop safety procedures was underlined. This should be supported by action at the national level, with programmes to emphasise capacity building at local and national levels. The valuable role which indigenous communities can play should also be highlighted.

(f) The need for additional funding for genetically rich developing countries was stressed, with particular reference to the development of their own capacities for developing and/or acquiring the new technologies to meet their particular needs.

(g) The potential value of applying biotechnology alongside and in support of more traditional methods and technologies was stressed.

(h) It was agreed that national sovereignty over biological and genetic resources needs to be fully respected.

6. Comments were made on specific programme areas as follows:

(a) The objectives of Programme A ("Increase plant and animal productivity") were considered to be over optimistic.

(b) Similarly, the target dates for achieving the objectives of Programme B ("Promote improved human health") were considered to be too early.

(c) There was general support for Programme C ("Environmental Protection").

(d) On Programme D ("Enhance safety"), it was considered that the activities should be developed to reflect more fully the further work required as identified in A/CONF.151/PC/67 (Part II). A wide spectrum of views on the desirability of developing an international Code of Conduct on Safety Procedures was expressed, though there was widespread support for some form of internationally agreed guidelines.

(e) On Programme E ("Enabling mechanisms"), strong emphasis was laid on the key need for the development of ensuring adequate institutional capacities - especially within developing countries - for research and training, raising public awareness, the development of human resources and information facilities, matched by appropriate levels of financial support. The proposal to establish a Biotechnology Consortium merited consideration, and further work was required on the idea. It should build upon relevant ongoing activities.

PART II

ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY:  
OPTIONS FOR AGENDA 21

I. INTRODUCTION

7. This paper contains options for Agenda 21 [was prepared by the UNCED secretariat in response to decision 2/10 of the Preparatory Committee at its second session, which took note of the progress report] on the environmentally sound management of biotechnology. [(A/CONF.151/PC/29), following on the requests made in decision 1/17 of the Preparatory Committee at its first session to have a full discussion of relevant aspects of environmentally sound management of biotechnology at its third session. Given] It takes account of the linkages of certain relevant aspects of biotechnology to biodiversity and in particular the negotiations for a convention on biological diversity. [the Secretary-General of UNCED was requested to investigate further the potential areas for action in the light of the comments made at the second session. 1/]

[2. This paper suggests possible response options for Agenda 21 to meet the most critical issues identified in the background paper (A/CONF.151/PC/67).]

[3. Biotechnology, like all technologies, when applied with proper care and safety, could help, for example, to promote the protection of human health; to enhance food security through sustainable agriculture; to minimize hunger and alleviate poverty; to enhance the industrial development process that transforms raw materials much more efficiently; to support reforestation and afforestation activities; and to detoxify hazardous wastes.]

[4. The proposed options constitute an integrated package of programmes that could facilitate and accelerate the environmentally sound management of biotechnology.]

8. The environmentally sound management of biotechnology opens up many new prospects for promoting sustainable development, especially when applied in support of or in combination with existing more conventional or traditional methods and processes. These opportunities include better health care, enhanced food security through sustainable agriculture, the alleviation of hunger and poverty, the supply of purer water, more efficient industrial development processes for transforming raw materials, support for sustainable methods of afforestation and reforestation, and the detoxification of hazardous wastes. It also offers new opportunities for global partnerships, especially between the developing countries which are the custodians of much of the world's stock of biological and genetic resources and those countries which have developed the technological expertise to transform those resources to serve the needs of development.

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[1/ A/46/48, (25.May 1991.)]

Notes: Bold text indicates proposed new language.

[Square brackets] indicate proposed deletions.

9. Like all new technologies, however, biotechnology needs to be applied with proper levels of care and safety. The programme areas set out below constitute an integrated package to promote the sustainable application of biotechnology within an internationally agreed framework of safety to facilitate and accelerate the environmentally sound management of biotechnology.

10. Biotechnology relies to a certain extent on a supply of biological and genetic resources, which are particularly abundant in tropical countries. It can also assist, for example through ex situ methods, in the conservation of those resources. The programme area set out in this paper therefore needs to take continuing account not only of the development of the Options for Agenda 21 on the Conservation of Biological Diversity, but also of the progress made in the negotiations on a Convention on Biological Diversity. As the Background and Issues paper (A/CONF.151/PC/67) indicated, however, the potential of biotechnology brings it into a very close relationship with a wide spectrum of sectoral and cross-sectoral activities. These include agriculture, horticulture, aquaculture, health care, embryo technology, marine, environmental and waste management, energy and mining, industrial production and forestry.

## II. OPTIONS FOR AGENDA 21

### Biotechnology objectives

11. The options for Agenda 21 focus on [four] five principal objectives, which respond to the needs identified in the Background paper on the Environmentally Sound Management of Biotechnology to promote sustainable development:

(a) Increase food productivity in sustainable agricultural systems through the use of [advanced] biotechnology applications in combination with conventional/traditional methods, techniques and technologies.

(b) [Improve] Contribute to improvements in human health globally.[by combating both communicable and non-communicable diseases] [by the year 2000.]

(c) Prevent and halt environmental degradation, [as well as] and preserve environmental integrity, by the judicious application of biotechnology.

(d) Implement effective global safety procedures.

(e) Stimulate the development and transfer of biotechnology applications in water treatment and purification to facilitate the provision of safe, clean, reliable water supplies.

### Proposed Programme Areas

12. [The following] Five major programme areas are proposed as follows: [options for consideration by the Preparatory Committee:]

A. Increase plant and animal productivity.

- B. Promote improved human health.
- C. Environmental protection.
- D. Enhance safety and develop international mechanisms for cooperation.
- E. Enabling mechanisms for the environmentally sound application of biotechnology.

13. For the implementation of these proposed programmes and the potential activities, national Governments, United Nations programmes and agencies, bilateral and multilateral development assistance organizations, industry, and the appropriate non-governmental organizations should collaborate to undertake the [below-mentioned] following programmes.

A. INCREASE PLANT AND ANIMAL PRODUCTIVITY

Basis for Action

14. [Rapid population growth,] Rapidly increasing demand, combined with plant, animal, and human diseases, and accelerating environmental deterioration [are some of the important factors mitigating] mitigate against increased food production on a global basis. New technologies will be required to supplement [current agriculture] existing and traditional agricultural methods and associated techniques and technologies. Crop and animal improvement programmes and biotechnology now offer advanced tools. These applications would not only have [to increase] make an important contribution to increasing productivity, but also [contribute to] towards more sustainable agriculture and protection of [the] human health and the environment.

Objectives

15. The aim of this programme is to increase food productivity in sustainable agricultural systems through the use of [advanced] biotechnology applications in support of traditional and conventional methods and techniques,. The specific objectives include:

(a) Increase plant and animal productivity by [25 per cent by the year 2000.] by appropriate differentiated amounts to be agreed by the year 2000.

(b) Reduce dependence on pesticides for food, feed, and fibre by [25 per cent] appropriate differentiated amounts to be agreed by the year [2000.], in combination with advances in integrated pest management and development of disease and pest-resistant crops and biological pesticides and the possible use of economic instruments.

(c) Increase productivity on marginal lands through the use of nitrogen fixation and mycorrhiza and reduce dependency on chemical fertilizers.

(d) Promote safety procedures as an integral component of the programme.

#### Activities

16. The proposed activities of this programme include:

(a) Use [of] conventional technology and biotechnology to develop [transgenic (genetically modified)] plants [that] which are resistant to biotic and abiotic stresses.

(b) Use [of] traditional technologies on nitrogen fixation and mycorrhiza in conjunction with advanced molecular biology techniques, to improve nitrogen fixation efficiency of symbiotic organisms in legumes and grasses, and phosphorous uptake capacity by crops.

(c) Use [of] conventional technology in conjunction with animal reproduction and animal health biotechnologies to accelerate animal breeding for specified needs, and rescue endangered native livestock for breeding purposes.

(d) [Provide adequate institutional infrastructure.] Develop methodologies for comparative evaluation and assessment of different technologies including biotechnology, for food production, and a system to assess the possible effects of biotechnologies on export crops in developing countries.

(e) Accelerate technology transfer and acquisition through international cooperation to support the activities of this programme area.

(f) Address issues related to germplasm resources, intellectual property rights, and [harmonize] the harmonization of bio-safety procedures. (as detailed in Programme area D - "Enhance Safety etc.").

(g) Capacity building. Provide adequate international scientific, technical and financial assistance and facilitate technical cooperation - especially for developing countries - to build up technical, managerial, planning, and administrative capacities at national level to support the activities in this programme area, with particular reference to assistance for local and indigenous communities in the conservation and sustainable use of the biological and genetic resources under their custodianship.

(h) Enabling mechanisms. Ways and means will need to be identified to ensure funding and technology transfer consistent with General Assembly resolution 44/228, with a view to fulfilling the objectives of the Conference, in particular those stipulated in Section I, paragraph 15, sections (j) and (k).

(i) Examine the possible withdrawal of subsidies and other possible uses of economic instruments to reflect the environmental costs associated with the unsustainable use of pesticides.

## B. PROMOTE IMPROVED HUMAN HEALTH

### Basis for Action

17. The protection and enhancement of human health is one of the most important objectives of development. The degradation of environmental quality, [for example, by], resulting from air and water pollution, soil contamination, toxic chemicals and hazardous wastes, and other sources is of increasing concern. There is also an increase in communicable and vector-borne diseases, compounded by malnutrition, inadequate human settlements, and lack of sanitation facilities. The health and well-being of people are therefore expected to be subjected to increasing risks. [which in turn affect the productivity and innovativeness of the individual.]

18. Improving human health care is a priority. This is one of the major areas [that] which has already benefited from biotechnology development[. There], but there is a need to accelerate and increase this development.

### Objectives

14. [Foremost is the objective to] To promote the health of people of all ages, protecting them against both communicable and non-communicable diseases. The target is to achieve health for all by the year [2000]. [Most] The aim is therefore to complete most of the proposed activities [are expected to be completed] before the year [2000]. This is likely to require major development and strengthening of institutional mechanisms and supporting finance at national level, especially in developing countries. Safety procedures should be promoted as an integral component of the programme.

### Activities

20. The possible activities include:

#### Universal immunization:

(a) Develop new and improved vaccines against major communicable diseases [that] which are efficient, safe, and protect the individual with the least number of doses. The [vaccine] vaccines should be stable at higher temperatures and preferably orally delivered. It should also be possible to combine and deliver a number of vaccines in a single dose for multiple disease protection [of the number] at birth.

(b) Control of disease vectors, such as mosquitoes, through the use of biological control agents, taking account of environmental protection considerations (NB. Programme area D).

Development and use of specific diagnostics:

(c) Develop and utilize new diagnostics based on monoclonal antibodies and DNA probes for the early, accurate solution of various diseases for enabling prompt treatment with care.

(d) [Facilitate] Develop the appropriate training, research and institutional capacities - especially within developing countries to enable the - use of diagnostics under unsophisticated conditions by semi-skilled personnel.

Development of new therapeutic and growth promoting agents:

(e) Develop and facilitate the use of hormones and its agonistics and antagonists (e.g. Insulin, Growth hormone).

(f) Develop agents that promote cell growth and modulate immunity systems (e.g. cytokinins, TNF, EGF).

(g) [Development of] Develop new [population] birth control agents using natural body mechanisms and biotechnology leading to safe, reversible, and long-lasting methods.

Development of new drugs based on molecular designing:

[(g)](h) Develop new [pesticides and other] chemicals designed through computer simulation and modelling using receptor-drug/receptor-pathogen interactions.

[(h)](i) Develop new drug delivery systems to deliver drugs to target sites and which are useful in the treatment of problematic diseases and organs (e.g. cancers, brain tissues).

(j) [Development of] Develop safe and effective methods of detection and treatment of genetically inherited and inborn diseases using DNA probes and gene therapy.

(k) Develop systems to assess the comparative advantages of different technologies for health care

(l) Capacity building. Provide adequate international scientific, technical and financial assistance and facilitate technical cooperation to developing countries to build up technical, managerial, planning and administrative capacities at national level to support the activities in this programme.

(m) Enabling mechanisms. Ways and means will need to be identified to ensure funding and technology transfer consistent with General Assembly resolution 44/228, with a view to fulfilling the objectives of the Conference, in particular those stipulated in Section I, paragraph 15, sections (j) and (k).

(n) Develop harmonized safety procedures based on Programme area D - ("Enhance safety etc.")



## C. ENVIRONMENTAL PROTECTION

### Basis for Action

21. Environmental protection is [a prerequisite for] an integral component of sustainable development. Various processes have therefore been, or are being developed, to improve environmental quality. [The expanding world population is generating, and will continue to generate, more wastes resulting from the use of more chemicals, more energy, and more agricultural and industrial products.] With the continued increase in the use of chemicals, energy and agricultural products and even with increasing efforts to prevent and avoid wastes and to promote recycling, the amount of wastes generated nevertheless appears likely to continue growing. There is a serious [A real] danger [lies in the short- and long-term effects on] to human health and biosphere in the short and long term from the [millions of tons] increasing large quantities of wastes and toxic chemicals produced daily [and scattered about the earth] which are disposed without adequate treatment.

22. In nature, there is a continuous recycling [and stabilization] of organic wastes and chemical substances. [As a result of population growth, the]. The amount and kind of wastes generated now in contact with the natural environment, including man-made chemicals in many cases, are beyond the capacity of the organisms involved naturally in waste recycling. The persistence, mobility, and toxicity of chemicals in natural environments need considerable attention.

23. The need for a [rich] diverse genetic pool of plant, animal, and microbial germ plasma for biotechnology to develop is well established. Biotechnology may play an important role in supporting rehabilitation of degraded ecosystems and landscapes through germ plasma conservation and development of varieties and careful consideration of the effects of organisms introduced into the degraded ecosystems on the remaining organisms and other organisms.

### Objectives

24. This proposed programme aims to apply biotechnology to prevent, halt, and reverse environmental degradation, [as well as] to preserve environmental integrity; to prevent or avoid wastes during the production process, to promote recycling processes wherever possible; and to promote safety procedures as an integral component of the programme.

### Activities

25. Taking account of the need to assess the effects on the environment and human health of the particular biotechnological application as defined in Programme area D, the [The proposed] activities proposed for this programme [call for the following] are:

Recycling and upgrading of organic wastes and biomass:

(a) Develop biotechnologies that can be used at the global level to provide energy, animal feed, and raw materials from organic wastes and biomass.

(b) Develop policies for reducing waste generation and increasing the use of biodegradable materials.

Development of cleaner and safer production technologies which prevent waste:

(c) Develop biotechnologies for substituting environmentally unsound chemical pesticides, herbicides and fertilizers with environmentally sound alternatives.

(d) [Use] Adopt the use of the integrated pest management approaches [that] which include bio-control agents.

(e) [Use] Adopt the use of bio-fertilizers within national fertilizer programmes.

(f) Improve the production processes and the economics of bio-control agents and bio-fertilizers.

(g) Develop a [supportive] framework of international agreements for training, research and development, [among others.], especially in developing countries, to support the activities outlined in this programme area.

(h) Develop policies for realizing the full potential of cleaner technologies and reduce reliance on chemical pesticides and fertilizers.

(h) ~~his~~ Develop biotechnologies for substituting environmentally unsound industrial production processes with environmentally sound alternatives.

Pollution control:

(i) Develop biotechnologies for the removal of pollutants from the environment where conventional techniques become expensive and inefficient or [are non-existent] do not currently exist.

(j) Develop [policies] biotechnologies for waste management before disposal.

(k) Support research [to understand] into the behaviour of chemicals in natural environments to devise [means] biotechnologies to [bring about their destruction.] manage them more effectively.

[Development and use of germ plasm.]

[Land rehabilitation.]

[Application of biotechnology to forestry and other biomass.]

(l) Develop programmes for applying biotechnology to forestry and other biomass.

(m) Capacity building. Provide adequate international scientific, technical and financial assistance and facilitate technical cooperation - especially for developing countries - to build up technical, managerial, planning and administrative capacities at national level to support the activities in this programme.

(n) Enabling mechanisms. Ways and means will need to be identified to ensure funding and technology transfer consistent with General Assembly resolution 44/228, with a view to fulfilling the objectives of the Conference, in particular those stipulated in Section I, paragraph 15, sections (j) and (k).

(o) Develop harmonized safety procedures based on Programme area D - "Enhance safety, etc."

#### D. ENHANCE SAFETY AND DEVELOP INTERNATIONAL MECHANISMS FOR COOPERATION

##### Basis for Action

26. The community at large can only understand, accept and benefit fully from the potential of biotechnology if adequate and transparent safety procedures are [applied.] in place. There is a need for internationally acceptable and agreed safety procedures. For this purpose, action to be undertaken could build upon procedures for safety that are already developed nationally and internationally. There are several fundamental principles underlying many of these national and international safety procedures, as follows:

- (a) Primary consideration of the organism, including genetically-modified organisms.
- (b) Application of the step-by-step procedure.
- (c) Complementary consideration of risk assessment and risk management.
- (d) Classification into contained use or release to the environment.
- (e) A framework for safety in biotechnology.

##### Objectives

27. [This proposed programme could, wherever possible, build on planned or existing activities to] To enhance safety in biotechnology development and application through international cooperation, with particular reference to social, health and environmental considerations, including the widest possible public participation.

### Activities

28. The proposed activities for this programme call for international cooperation [which could be directed towards the following:] as follows. They should build upon planned or existing activities to accelerate the environmentally sound application of biotechnology, especially in developing countries, with particular reference to "International Cooperation on Safety in Biotechnology" as detailed in paragraphs 119-158 (inclusive) of A/CONF.151/PC/67, notably paragraphs 135-158 (inclusive) "Areas for further work."

Make the bio-safety procedures easily available and applicable to all countries:

(a) Make [widely available] the existing safety procedures widely available by collecting the existing material and adapting [this material] it to the specific needs of different countries and regions.

Further Develop and harmonize these safety procedures:

(b) Develop safety procedures to promote scientific development and categorization in the areas of risk assessment and risk management (information requirements, databases, procedures for assessing risks, establishment of safety conditions, monitoring and inspections).

(c) Harmonize safety procedures into a [set] framework of internationally [acceptable] agreed technical guidelines [for safety,] on safety in biotechnology as a basis for further development [possibly in the form of a Code of Conduct, taking into account decision 1/17 of the Preparatory Committee at its first session.]

Support direct assistance upon request:

(d) Establish a network of national and regional contact points, and an international coordination centre.

(e) [Give] Provide direct assistance upon request, [by] from the international coordination point, using information networks, databases and information-procedures.

(f) Capacity building. Provide adequate international technical and financial assistance and facilitate technical cooperation to developing countries to build up technical, managerial, planning and administrative capacities at national level to support the activities in this programme.

(g) Enabling mechanisms. Ways and means will need to be identified to ensure funding and technology transfer consistent with General Assembly resolution 44/228, with a view to fulfilling the objectives of the Conference, in particular those stipulated in Section I, paragraph 15, sections (j) and (k).

E. ENABLING MECHANISMS FOR THE ENVIRONMENTALLY SOUND APPLICATION OF BIOTECHNOLOGY

Basis for Action

29. The environmentally sound and safe application of biotechnology has the potential for addressing many of the needs outlined in Programme areas A, B and C. These include standards of health care, levels of food security, the efficiency of industrial development processes and the purity of water supplies, as well as environmental problems such as [24. Inadequate] treatment and disposal of rural, urban, agricultural, and industrial wastes [are contaminating] which contaminate surface and ground water [as well as the soil] and soils, posing serious risks to human health and the environment. Injudicious use of chemical pesticides has led to the accumulation of toxic residues in the environment and many insects, pests, and other disease vectors are showing increasing resistance to pesticides.

[25. The environmentally sound and safe application of biotechnology has the potential to ameliorate many of these problems.] There is therefore a need to accelerate the development and application of biotechnologies, particularly in developing countries. This will require a major effort to build up institutional capacities at national and local levels, especially in terms of research and training, raising public awareness, the development of human resources and information facilities, matched by appropriate levels of financial support and backed by equivalent development and support for traditional methods and techniques as practised by local and indigenous communities

Objectives

[26.]30. The proposed programme incorporates the following targets and, wherever possible, could be built on existing or planned activities:

(a) To accelerate the environmentally sound and safe applications of biotechnologies, particularly [in] for developing countries, within the framework of safety outlined in Programme area D.

(b) By the year 1994 establish a Biotechnology Consortium or Corporation for Development, as a joint venture by developing countries, bilateral and multilateral agencies, and the private sector, to provide new mechanisms for developing countries to accelerate the development, acquisition, and adaptation of non-proprietary and proprietary technologies, drawing upon relevant ongoing activities.

Activities

[27.]31. The proposed activities for this programme may include:

(a) Undertake detailed pre-investment feasibility studies for a joint venture among prospective shareholders from developing countries, bilateral/multilateral agencies and private sector.

(b) Evaluate priority needs of developing countries.

(c) [Identify] Develop mechanisms for the transfer of environmentally safe and sound technologies [for transfer] with particular reference to the role of transnational corporations; intellectual property rights to protect the rights of farmers and breeders, with particular reference to native varieties and strains; and the question of compensation for opportunity costs foregone;.

(d) Identify financial and other benefits for [participating] partners in a possible consortium, including sharing of benefits.

(e) Develop mechanisms for effective cooperation between genetically rich developing countries and developed countries, with particular reference to the special role of local and indigenous communities as custodians of biological and genetic resources.

(f) Undertake research into the socio-economic costs and benefits - especially to developing countries - of individual biotechnology applications.

(g) Examine the need to establish mechanisms on the liability and compensation aspects of the unanticipated impacts of biotechnology applications.

(h) Capacity building. Mobilize appropriate levels of scientific and technical assistance and facilitate technical cooperation, especially to developing countries:

- (i) To promote the development of endogenous research within the public and private sectors, especially on biotechnology applications in the country of origin of genetic material;
  - (ii) To promote the conservation of biological and genetic resources in developing countries, with particular reference to the skills and knowledge of local and indigenous communities;
  - (iii) To raise public awareness;
  - (iv) To enable the development of human resources including education and training of scientists and local communities in the environmentally sound management of new and traditional biotechnological methods and processes, including development of programmes in technical schools and universities, and information facilities;
  - (v) To undertake research into the linkages of biotechnology with the relevant aspects of biodiversity and other issues.
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PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT

Third session

Geneva, 12 August-4 September 1991

Working Group I

Agenda item 5

### ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY

#### Options for Agenda 21

#### Revised draft decision proposed by the Chairman

#### The Preparatory Committee,

Having regard to the report of the Secretary-General of the Conference on the Environmentally Sound Management of Biotechnology (A/CONF.151/PC/67) and on the Options for Agenda 21 (A/CONF.151/PC/42/Add.5),

1. Requests the Secretary-General of the Conference to transmit the Chairman's Summary and Proposals for Action (A/CONF.151/PC/WG.I/L.30), suitably represented as an amendment to A/CONF.151/PC/42/Add.5 to the Intergovernmental Negotiating Committee for a Convention on Biological Diversity;
2. Also requests the Secretary-General of the United Nations Conference on Environment and Development, without pre-empting or duplicating the work of the Intergovernmental Negotiating Committee, to follow the work of that Committee and to keep it informed of the interconnections between relevant aspects of biotechnology and other environment and development issues as they emerge from the UNCED process, in particular the elaboration in Agenda 21;

3. Requests the Secretary-General to take into consideration the views expressed at the third session of the Preparatory Committee and the proposals submitted by Governments in the elaboration of Agenda 21 on the Environmentally Sound Management of Biotechnology, for consideration at its fourth session, recalling the programme areas in paragraph 12 of A/CONF.151/PC/WG.I/L.30:

Programme A - Increase plant and animal productivity

Programme B - Promote improved human health

Programme C - Enhanced Environmental protection

Programme D - Enhance safety and develop international mechanisms for cooperation

Programme E - Enabling mechanisms for the environmentally sound application of biotechnology

as well as the proposal on the programme for the generation and transfer of biotechnologies and their sustainable use in the developing countries (A/CONF.151/PC/WG.I/L.26). Additional submissions by Governments should be made available to the secretariat not later than 7 October 1991;

4. Requests the Secretary-General to integrate in the proposals under paragraph 3 above, provisions for the means of implementation in accordance with the general decision of the Preparatory Committee on Agenda 21;

5. Agrees that the relationship between biotechnology and biological diversity will be considered in more detail at its fourth session;

6. Decides to revert to the issues covered by this session for final consideration at its fourth session.

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## HAZARDOUS WASTES

### **SUMMARY**

The main contentious issues were those common to all PrepCom III discussion: the need for full identification of the financial, technological, scientific and human resources required to implement the proposed activities in the management of hazardous waste. A further issue of concern is the continuing call by many developing countries for a ban on all transboundary movement of hazardous wastes. These issues were not resolved at PrepCom III, and remain on the table for PrepCom IV.

The need to keep the recycling option open is recognised in the revised Agenda 21 draft document. The importance of the Basel Convention is also reflected, along with regional agreements such as the Bamako Convention.

### **Documentation**

- |                                |   |   |
|--------------------------------|---|---|
| A/CONF.151/PC/75               | - | Background Document                           |
| A/CONF.151/PC/WG.II/L.21/Rev.1 | - | Decision Document on all Wastes/Toxics issues |
| Annex I to L.21/Rev.1          | - | Revised Draft Options for Agenda 21           |

### **PREPCOM DISCUSSION**

The primary Canadian objectives were:

- To support the ratification of the Basel Convention on the Control of the Transboundary Movement and Disposal of Hazardous Wastes;
- To support the promotion of hazardous waste management strategies, to promote application of the hierarchy of the "4 Rs" (Reduce, Reuse, Recycle, Recover), and to see that the resulting strategies do not compromise Canada's economic and trade interests, while ensuring that neither human health nor the environment are compromised;

- To promote the development of internationally acceptable standards and criteria for the management of hazardous wastes, in particular, the distinction between hazardous wastes for disposal and hazardous recyclables;
- To recognize both the environmental and the economic benefits of recycling (e.g., energy conservation, commercial opportunities); and ensure that any controls proposed do not impede recycling initiatives and international trade in hazardous recyclables;
- To promote market based as well as regulatory approaches to the environmentally sound management of hazardous wastes.

Transboundary movement of hazardous waste is still a major preoccupation of developing countries, with many calling for a ban on transboundary movement (Nigeria, Uganda). Some countries called for a specific Resolution at UNCED on this issue. While there was less discussion of the Bamako Convention at this PrepCom than last time, several African countries cited Bamako as proof of the need to take control of the transboundary movement of hazardous waste. All interventions referred to the Basel Convention, mostly urging governments to sign and ratify it.

Several developing countries (China, Brazil, Malaysia) called for more differentiation between the responsibilities of developed and developing countries in the generation and handling of hazardous wastes.

Most delegations noted the importance of the forthcoming UNEP meeting of government designated experts to consider draft elements of an international strategy and action programme, including technical guidelines, for environmentally sound management of hazardous wastes (decision 16/30 of the 16th session of the UNEP Governing Council). Several commented that this meeting should produce important inputs for Agenda 21. The representative for UNEP said that the documents now being prepared for the meeting will take into account the results of PrepCom III. The outcome of the experts' meeting will go to PrepCom IV. No date or place has been fixed for the meeting; UNEP is looking at end November/early December as a possibility.

#### Comments on Agenda 21 Document

Most interventions spoke favourably of the draft Agenda 21 document; Malaysia, however, criticized it as being too shallow.

Given the importance of the issue, some delegations asked that the transboundary movement of hazardous wastes be strengthened as a Programme Area in the Agenda

21 document--that it not be limited to monitoring, but include all aspects of managing (others, as noted above, called for a ban).

Several African countries requested that a new overall target be added dealing with the Bamako Convention.

Some countries wished to see timetables added to the targets, consistent with the draft Agenda 21 documents for other issues; the US was opposed to specific targets in the first place, saying that it does not have the domestic means of implementing them and there is no realistic way of measuring many of the supposedly targeted activities.

**Technology:** Many delegations (Benin, Burkina Fasso, Morocco) called for more emphasis on clean technologies and their transfer to developing countries. China noted that many developing countries, because of financial constraints, are forced to import machinery/equipment which produced hazardous wastes. India stated that industrialized countries should spend more effort to stop exporting not only hazardous waste, but also technologies which generate the waste. Mauritania wanted to see the prohibition of waste generating technologies as a goal in the Agenda 21 document.

**Institutions:** Some asked that the activity of strengthening institutional capacities be more fully developed, naming specific institutions (Benin, Finland). Unless a particular organization is identified, no one will take the responsibility and the job won't be done. The Netherlands (speaking for the European Community) cautioned against re-inventing the institutional wheel, noting that many of the activities are already reflected in the work of UNEP, the OECD and other organizations.

**Promotion of Education, Training and Public Awareness:** Several delegations supported this activity. Benin, however, asked why only NGOs and women's groups were proposed for developing awareness campaigns; all sectors should be involved. Malaysia said that assistance to NGOs in their education programmes should be more prominent in Agenda 21.

**Industry:** Benin was concerned that there was no proposal to convert or close high-risk plants which generate hazardous products. Some delegations said that the role of industry should be given more emphasis, including the need for industry to take responsibility at the boardroom level. The role of small and medium size industry should also be reflected in the document. The UN Centre on Transnational Corporations (UNCTC) reported the results of a benchmark survey undertaken at the request of ECOSOC. Responding to the question of which were the most important environmental issues with which industry has to deal, hazardous waste was identified as second in importance, after climate change.

**Rehabilitation of waste sites:** Several delegations (Benin, Jamaica, Philippines) felt that this aspect had not received enough attention in the document. Jamaica said that

the cradle-to-grave management approach was vital, but that the grave causes problems too.

Revolving fund: The suggestion to study the feasibility of establishing a revolving fund to strengthen capacity (paragraph 31) was not endorsed by developing country delegations; the US opposed this item.

During the second and third weeks, revisions to the Agenda 21 document (PC/42/Add.9) were worked on, first in a small voluntary drafting group and then in informal consultations of the full Working Group, reflecting the points discussed above. Language that was not fully agreed, either because proposed revisions had no time to be discussed or because there were diverging views, remains in square brackets for PrepCom IV consideration.

The chief item of concern which was common to consideration of all issues: developing countries insisted that unless financial resources, technology transfer and other means of implementation were specifically laid out in each programme area, they could not approve the programme as a whole. Standard wording, indicating that these aspects would be addressed for consideration at PrepCom IV, was inserted in the document in square brackets.

A second issue of concern to Canada was the proposal, drafted by the Chair, to include a new objective under Strengthening International Cooperation (Programme Area E), "to adopt a ban on the export of hazardous wastes to countries that do have the capacity to deal with these wastes in an environmentally sound way". A proposed corresponding activity was "to amend the Basel Convention with a view to adopting a ban on export of hazardous wastes..." to these countries.

Malaysia proposed alternate wording: "To promote voluntary as well as mandatory prohibition of export of hazardous waste to developing countries and to countries that cannot treat and dispose of the waste to the same stringent requirement as in the country of origin". The Malaysian text replaced the Chair's draft as the basis of negotiation; the US and EC, amongst others, preferred it because it does not use the red flag word "ban", and includes the magic word "voluntary". However, due to a lack of time there was tacit agreement to not attempt serious negotiation on this touchy issue. The text remains in square brackets, pushed down the road for Prepcom IV to resolve.

During the informal consultations of the full Working Group, much of the time was spent negotiating language on targets. The US delegation, citing domestic legislation, could not accept language that implied countries should establish targets, and proposed alternate softer wording. This in turn led to long debates on whether sections of the Agenda 21 document described targets, activities, or policies.

In the final Plenary session to approve the decision documents, on the last night of the PrepCom, India re-opened a debate which had been taking place throughout the Working Group consideration of the issue, regarding prevention and minimization, rather than management, of hazardous waste. It insisted that prevention and minimization be included in the paragraph referring to the UNEP experts' meeting on an international strategy, despite the explanation that UNCED could not arbitrarily change the language of the decision of the UNEP Governing Council, quoted in this paragraph. In the end prevention and minimization were spelled out in the paragraph referring to Agenda 21 options.

### **OUTCOMES AND ASSESSMENT**

As with most of the sectoral issues debated at PrepCom III, the outcome is a revised Agenda 21 document which is heavily square-bracketed and which leaves the most sensitive issues for future resolution. Aside from the issues common to all agenda items, notably technological and financial resources the most serious bone of contention is the question of a ban on the transboundary movement of hazardous wastes. Clearly, the developing countries will continue to push this issue, and just as clearly many of the industrialized countries will continue to resist. For the moment the language is in square brackets, but it will have to be dealt with at PrepCom IV.

While recycling does not figure prominently in the revised text, the importance of the recycling option is appropriately reflected. As this issue is linked to that of transboundary movement, it will have to be closely watched not only at PrepCom IV but at all other meetings before then.

Canada should also take a close look at the revised text dealing with targets in each programme area, to determine whether there is any discomfort with the current proposals.

PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Third session  
Geneva, 12 August-4 September 1991  
Working Group II  
Agenda item 4

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

Revised draft decision submitted by the Chairman

The Preparatory Committee,

1. Welcomes the reports of the Secretary-General of the Conference on 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 concerning the background documents (A/CONF.151/PC/74, A/CONF.151/PC/75, A/CONF.151/PC/76, A/CONF.151/PC/88) and the Options for Agenda 21 (A/CONF.151/PC/42/Add.8-10);

2. Requests the Secretary-General of the Conference to submit at its fourth session, the annex to this decision as contained in documents A/CONF.151/PC/WG.II/L.19 and Add.1-3, as revised, during the informal consultations at the third session;

3. Requests the Secretary-General of the Conference to submit to the Preparatory Committee at its fourth session for its consideration revised options for Agenda 21 indicating the origins of proposals, when they reflect the results of expert meetings, taking into account:

(a) The debate and the relevant decisions taken at this session including on the format of Agenda 21 and means of implementation as contained in document A/CONF.151/PC/L.49.

*including for prevention, minimisation + management of hazardous wastes*

(b) The results of the UNEP ad hoc meeting of government-designated experts to consider the draft elements for a possible international strategy and action programme, including technical guidelines for environmentally sound management of hazardous wastes, planned to be held before the end of 1991.

(c) The results of the ad hoc meeting of government-designated experts to be convened by UNEP in association with the IPCS which will consider proposals for an intergovernmental mechanism for risk assessment and management of chemicals, and which is to be held in London by mid-December 1991.



## ANNEX I

### [ ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS WASTE: OPTIONS FOR AGENDA 21

#### OPTIONS FOR AGENDA 21

#### OVERALL OBJECTIVE

4. Within the framework of integrated life cycle management prevent to the extent possible and minimize the generation of hazardous wastes, as well as treat the wastes in a way that they do not cause harm to the environment.

#### OVERALL TARGETS

- (a) Prevention or minimization of the generation of hazardous wastes, elimination or reduction of the transboundary movements of hazardous wastes to a minimum consistent with the environmentally sound and efficient management of those wastes, and self-sufficiency in waste disposal in the country of origin to the extent environmentally sound and efficient.
- (b) Ratification of the Basel Convention and the expeditious elaboration of related protocols, [especially] 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 and the expeditious elaboration of a protocol on liability and compensation.
- (d) [Full respect of the aims of the Bamako Convention by all countries.]

#### PROPOSED PROGRAMME AREAS

5. The following major programmes are proposed as options:

- (a) Promote waste prevention and minimization through "cleaner production" methods avoiding the use of hazardous substances where substitutes are available, through resource recovery, recycling, reclamation, direct re-use or alternative uses of wastes.
- (b) Enhance knowledge and information on economics of prevention and management of hazardous wastes.
- (c) Increase knowledge about health and environmental impacts of hazardous wastes

- (d) Promote and strengthen institutional capacities in prevention, minimization and management of hazardous wastes.
- (e) Promote and strengthen international co-operation in management of transboundary movements of hazardous wastes, including control and monitoring, consistent with international and regional legal instruments.

A. PROMOTE WASTE PREVENTION AND MINIMIZATION THROUGH "CLEANER PRODUCTION" METHODS AVOIDING THE USE OF HAZARDOUS SUBSTANCES WHERE SUBSTITUTES ARE AVAILABLE THROUGH RESOURCE RECOVERY, RECYCLING, RECLAMATION, DIRECT REUSE OR ALTERNATIVE USES OF WASTES.

Basis for action

6. Human health and environmental quality are being continually degraded by the increasing amount of waste being produced. One of the first priorities in waste management therefore is minimization as part of a broader approach, including pollution prevention and cleaner production strategies, industrial processes and consumer patterns.

7. Among the most important factors in these strategies is the recovery of wastes into useful material. Technology application, modification and development of new low waste technologies is therefore currently a central focus of waste minimization.

Objectives

8. The objectives of this programme are to:

- (a) reduce to the extent feasible the generation of hazardous wastes; and,
- (b) Where practicable and environmentally sound utilize residues emanating from the production process optimizing use of raw materials.

9. To achieve the objectives, countries which can afford to adopt the requisite technologies without detriment to their development could establish policies including:

- (a) Integration of cleaner production approach and waste minimization in all planning, and adoption of specific targets by a target year.

- (b) To promote the use of regulatory and market mechanisms.
- (c) Establish an intermediate target for the stabilization of the quantity of hazardous waste generated;
- (d) Establish longer terms targets for reducing the amount of hazardous waste produced per unit of manufacture;
- (e) [Establish targets for countries producing banned or severely restricted chemicals (which are potentially hazardous wastes) to phase out such products and intensify R & D for alternatives];
- (f) To achieve, on a substance by substance basis, a qualitative improvement of waste streams, mainly through activities aimed to reduce hazardous substances in waste streams.

#### Activities

#### 10. Promote information collection and dissemination

- (a) Governments\*, assisted by international organizations, could establish mechanisms — for assessing the value of existing information systems.
- (b) Governments could establish nationwide and regional information collection and dissemination clearinghouses and networks which are easy to access and use for Government institutions and industry.
- (c) International organizations, especially through the UNEP Cleaner Production Programme and the ICPIC system, could extend and strengthen existing systems for collection of cleaner production information.
- (d) Promote the use and dissemination by all UN agencies of information collected through the Cleaner Production network.
- (d) [Strengthen international cooperation in monitoring the transfer to other countries of industries generating toxic and hazardous wastes].
- (e) Cooperate in monitoring the effects of the management of hazardous wastes.

\* ("Governments" also refers to the European Community acting in the sphere of its competence)

11. Technology development and research

- (a) Governments, according to their possibilities and with the help of multilateral cooperation, academia and industry, could significantly increase financial support for "cleaner technology R&D programmes", including the use of biotechnologies.
- (b) Industry, with assistance from National Governments and international organizations, could promote research into the phase-out of hazardous processes and the reduction of raw materials and energy consumption.
- (c) Industry could develop schemes to integrate the cleaner production approach into the design of products and their management practices.

12. Development of management tools and practices

- (a) Governments could modify existing standards or specifications for purchases to encourage energy and raw materials savings and to avoid discrimination against recycled materials.
- (b) Governments, according to their possibilities and with the help of multilateral cooperation, could provide economic or regulatory incentives to stimulate industrial innovation towards cleaner production methods, to encourage industry to invest in such recycling technologies so as to ensure equal standards of environmental management to apply to recyclable wastes as well as to other types of wastes, and to encourage waste minimization investments.
- (c) [Developed country Governments should provide a range of incentives to encourage industry to transfer technologies and know-how to developing countries on preferential and non-commercial terms. Industry could develop guidelines and codes of conducts leading to cleaner production through sectoral trade industry associations.]
- (d) Governments, according to their possibilities and with the help of multilateral cooperation, should encourage, as far as possible, industry to treat and dispose of wastes at source, where waste generation is unavoidable.
- (e) Governments according to their possibilities and with the help of multilateral cooperation should encourage as far as possible combined treatment/disposal facilities for small and medium size industries.
- (f) 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 with

the application of the polluter pays principle.

- (g) Governments should encourage technology assessments e.g. through the use of technology assessment centres.
- (h) [Governments according to their possibilities and with the help of multilateral cooperation should encourage industry to dispose of any such banned or severely restricted chemicals that are still in stock [or in use] [but not in use], as soon as possible, in an environmentally sound manner.]

13. Promotion of Education, training and public awareness

- (a) Governments could increase support for industrial training programmes, incorporating waste prevention and minimization techniques and launching of demonstration projects at the local level to develop 'success stories' in cleaner production.
- (b) Industry could integrate cleaner production principles and case examples into training programmes and establish demonstration projects/networks by sector/country.
- (c) All sectors of society could develop cleaner production awareness campaigns and promote dialogue and partnership with industry and other actors.

14. Strengthening of institutional capacities including policies and planning

- (a) Governments in 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 of technology transfer and implementation for sound management of wastes and its disposal.
- (b) Governments could include into 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 waste reduction targets].
- (c) Governments could work with industry on sector-by-sector waste minimization campaigns, including quantified targets for raw material and energy use, as well as the reduction of wastes and other emissions.
- (d) Strengthen national environmental impact assessment procedures to take into account the concept of "cradle to grave" approach for 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 could develop procedures for the monitoring of the application of the "cradle to grave" approach, including environmental audits.
- (f) [Bilateral and multilateral development assistance agencies could substantially increase funding for cleaner technology transfer to developing countries and economies in transition, including small and medium size enterprises.]

[The implementation by developing countries of specific programmes and actions envisaged under Agenda 21, will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following heading:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development]

B. ENHANCE KNOWLEDGE AND INFORMATION OF ECONOMICS OF PREVENTION AND MANAGEMENT OF HAZARDOUS WASTE

Basis for action

15. Due to the increasing amounts of hazardous wastes generated every year, there are increasing direct and indirect costs to the society and to the individual citizens in connection with its generation, handling and disposal. To improve knowledge of the economics, including impact on employment and environmental benefits of hazardous waste management, it is therefore crucial that necessary capital investment be made available in development programmes.

Objectives

16. Facilitate the establishment of cost effective policies and approaches to hazardous waste prevention and management taking into consideration the state of development of each country.

Activities

17. Develop and implement a programme aiming at increasing knowledge and information on the economics of waste prevention and management.

18. A relevant and competent international organization could take the lead, in co-operation with others organizations, in inter alia:

- (a) Developing guidelines for estimating the costs and benefits for various approaches to the adoption of cleaner production and waste minimization and environmentally sound management of wastes.
- (b) Undertaking a comprehensive survey of and disseminate information on, experiences at national level in adopting economic regulatory schemes and incentive mechanisms for waste management and for the use of clean technologies, which prevent wastes from being generated.

[The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following heading:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development]

C. INCREASE KNOWLEDGE ABOUT HEALTH AND ENVIRONMENTAL IMPACTS OF HAZARDOUS WASTES

Basis for action

19. Toxic substances have entered the environment endangering human health and threatening ecosystems, due to careless storage, handling and disposal of hazardous wastes. To address these problems, there is a need for increased knowledge on environmental contamination and pollution, the associated health risks from exposures of populations, especially women and children and ecosystems, to hazardous waste, the assessment of risks and the characteristics of wastes.

Objectives

20. The objectives are to:

- (a) 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.
- (b) improve the knowledge regarding effects of hazardous wastes on health and the environment; and,
- (c) make information available to governments and to the general public on the effects of hazardous waste on health and the environment.

Activities

21. Development of technologies for prevention, minimization and handling of hazardous wastes

- (a) International organizations could identify relevant and improved technologies for handling, storage, treatment and disposal of hazardous wastes.
- (b) International organizations could develop improved health-based criteria upon which regulations and standards can be established, taking into account national decision-making processes, and assist in the preparation of practical technical guidelines for prevention, minimization and safe handling and disposal of hazardous wastes.

22. Development of management tools and practices

- (a) Governments could establish and maintain inventories including computerized inventories of hazardous wastes and their treatment/disposal sites and assess the risk to the environment as well as identify measures which are needed to clean up the disposal sites.
- (b) Governments and international organizations could collaborate in developing easy to implement methods and guidelines for characterization and classification of hazardous wastes.

23. Information exchange and dissemination

Governments, international, including regional organizations, could facilitate and expand the dissemination of technical and scientific information dealing with the various health aspects of hazardous wastes, and to promote its application.



24. Promotion of education and training

- (a) Governments and international organizations could collaborate in developing and disseminating educational materials concerning waste and their effects on environment and health, for use in schools and by the general public.
- (b) Governments could establish or strengthen programmes for environmentally sound management of hazardous wastes in accordance with 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 could 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 could 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.

[The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following heading:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development]

D PROMOTE AND STRENGTHEN INSTITUTIONAL CAPACITIES IN HAZARDOUS WASTE MANAGEMENT

Basis for action

25. Many countries lack the national capacity to handle and manage hazardous waste. This is primarily due to inadequate infrastructure, deficiencies in regulatory frameworks, insufficient training and education programmes and lack of co-ordination between the different ministries and

institutions involved in various aspects of waste management. To ensure environmentally sound management of hazardous wastes, one of the main priorities is to provide awareness, education and training programme to cover all levels of the society. In addition there is 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 materials. Finally there is a need to strengthen the capacities of institutions which are responsible for the management of hazardous materials.

### Objectives

26. Adoption of appropriate coordinating, legislative and regulatory measures at the national level supporting the environmentally sound management of hazardous waste including for the implementation of international conventions.
26. Public awareness and information programmes on hazardous waste issues and basic education and training programmes provided for industry and government workers in all countries.
28. Comprehensive research programmes on hazardous materials to be established in countries.
29. Strengthened service industries for handling hazardous materials and strengthened international networking.
30. Endogenous capacities to be established in all developing countries to train and educate staff at all levels in hazardous waste handling, monitoring and environmentally sound management.

### Activities

31. Strengthening of research
  - (a) International organizations [and donors] could increase support for hazardous waste research management in developing countries.
  - (b) Governments, in collaboration with international organizations, could conduct research on the health effects of hazardous wastes in developing countries conditions, including the long term effects on children and women.
  - (c) Governments could conduct research aimed at the needs of small and medium sized industries.

- (d) Industry, governments and international organizations could expand technological research on hazardous wastes handling, storage, transport, treatment and disposal and hazardous wastes assessment and management.

32. Strengthening of institutional capacities and infrastructures

- (a) Multinational companies (MNC) and other large scale enterprises should introduce policies and commitment 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, which require such standards.
- (b) Governments, international organizations and industries could as appropriate:
  - (i) Support national institutions for dealing with hazardous wastes from the regulatory monitoring and enforcement perspectives, including enabling them to implement international conventions.
  - (ii) Develop industry-based institutions for dealing with hazardous wastes and service industries for handling hazardous wastes.
  - (iii) Adopt technical guidelines for the environmentally sound management of hazardous wastes and support implementation of regional and international conventions.
  - (iv) Develop and expand international networking, between professionals working in the hazardous wastes area and maintain an information flow among countries.
  - (v) Assess the feasibility of establishing and operating national, sub-regional and regional hazardous waste treatment centres. Such centres could also 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.
  - (vi) Develop a programme for the establishment of national capacities to train and educate staff at various levels in hazardous waste management.
  - (vii) Study the feasibility [in the context of the Basel Convention and of relevant regional conventions] of providing financial assistance on an interim basis, in case of an emergency situation, in minimizing damage from accidents arising from transboundary movements of hazardous wastes or during the disposal of these wastes.

- (viii) Conduct environmental audits of existing industries to improve in plant hazardous wastes management regimes.

33. Promotion of Education, training and public awareness

Governments, international organizations and industry could:

- (a) Increase public awareness and information on hazardous waste issues and promote the development and dissemination of public information on hazardous waste that is understandable to the general public.
- (b) Increase participation in hazardous waste management projects of the general public, including 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 transfer to developing countries of technologies on hazardous waste minimizing and handling, through training for labour, industrial management, and government regulatory staff.

[The implementation by developing countries of specific programmes and actions envisaged under Agenda 21, will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following heading:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development]

E. PROMOTE AND STRENGTHEN INTERNATIONAL CO-OPERATION IN MANAGEMENT OF TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTES, INCLUDING CONTROL AND MONITORING, CONSISTENT WITH INTERNATIONAL AND REGIONAL LEGAL INSTRUMENTS

### Basis for action

34. In order to promote and strengthen international cooperation in the management, including control and monitoring of transboundary movements of hazardous wastes, there is a need for harmonization of procedures and criteria used in various international and legal instruments. In this connection there is also a need to develop or harmonize existing criteria for identification of hazardous wastes, dangerous to the environment, and building monitoring capacities.

### Objectives

35. The objectives are:

- (a) To facilitate and strengthen international cooperation in the environmentally sound management, including monitoring, of transboundary movements of hazardous wastes, by having internationally adopted criteria for identification and classification of hazardous wastes, for the harmonization of relevant international legal instruments.
- (b) To [adopt a ban on] [prohibit/not permit] the export of hazardous wastes to countries, that do not have the capacity to deal with those wastes in an environmentally sound way.

### Activities

36. Strengthening and harmonization of criteria and regulations

Governments and international organizations could co-operate as appropriate to:

- (a) Incorporate the notification procedure called for in the Basel Convention and other relevant regional conventions as well as their annexes into national legislation.
- (b) Formulate [international and where appropriate] regional agreements regulating transboundary movements of hazardous wastes, such as the Bamako Convention.
- (c) [Help promote the complementarity of such regional agreements with international conventions and protocols.]
- (d) Strengthen national and regional capacities and capabilities to monitor and control transboundary movement of hazardous wastes.
- (e) Set up monitoring and surveillance systems including at the national and

regional levels, for the transboundary movements of hazardous wastes.

- (f) Develop guidelines for the identification of hazardous wastes at the national level, taking into account internationally, including regionally agreed criteria and prepare a list of hazard profiles for the hazardous wastes listed in the national legislation.
- (g) Develop and use appropriate methods for testing, characterizing and classifying the hazardous wastes and adopt or adapt safety standards and principles for managing hazardous wastes in an environmentally sound way.

37. Adoption of normative measures

Governments and international organizations could collaborate to:

- (a) Elaborate or adapt policies for the environmentally sound management of hazardous wastes [in conformity with] [keeping in mind provisions of] existing international instruments.
- (b) To make recommendations to the appropriate fora or to set up or adapt norms, including the equitable implementation of the polluter pays principle, and regulatory measures to comply with the obligations and principles of the Basel Convention, the Bamako Convention or other future regional and international agreements including protocols, as appropriate, for setting out appropriate rules and procedures in the field of liability and compensation for damage, resulting from the transboundary movement and disposal of hazardous wastes and other wastes, [as well as mandatory insurance to cover this.]
- (c) [To promote voluntary as well as mandatory prohibition of export of hazardous wastes to developing countries, and to countries that cannot treat and dispose of the wastes to the same stringent requirements as in the country of origin].
- (d) [To urge governments to introduce legislation to severely punish persons engaged in illegal waste trade and illegal traffic].

38. Implementation of existing agreements

Governments are urged to ratify the Basel and Bamako Conventions and to pursue the expeditious elaboration of protocols on liability and compensation and of mechanisms and guidelines to facilitate the implementation of the conventions.

39. Promotion of information and public awareness

[To promote and assist intergovernmental and non-governmental organizations in establishing and enhancing information networks on transboundary toxic and hazardous waste trade and illegal traffic.]

[The implementation by developing countries of specific programmes and actions envisaged under Agenda 21, will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following heading:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development]

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## ENVIRONMENTALLY SOUND MANAGEMENT OF SOLID WASTE AND SEWAGE RELATED ISSUES

### SUMMARY

The discussions and negotiations on this issue were largely non-contentious, and reflected a reasonable balance of interests between developing and industrialized countries. Developing countries emphasized their concerns regarding the implications for health of waste and sewage issues. Recycling and minimising waste production were well addressed. Due to time constraints, the programme area of Extending Waste-Disposal Service Coverage was not addressed in any detail. Rather surprisingly, there was little emphasis on changes of lifestyle and consumption patterns as a necessary component of waste management strategies; this aspect will no doubt be more thoroughly addressed at PrepCom IV.

### Documentation

A/CONF.151/PC/76	-	Background Document
A/CONF.151/PC/WG.II/L.21/Rev.1	-	Decision Document for all Wastes/Toxics issues
Annex II to L.21/Rev.1	-	Revised Draft Agenda 21 for Solid Wastes and Sewage

### PREPCOM DISCUSSION

The Canadian objectives were the following:

- To assist developing countries in dealing with their immediate and pressing need to improve fundamental solid waste and sewage services;
- To promote the reduction of current excessive generation of solid waste and sewage in industrialized countries.

Following the opening discussions of solid waste issues, a small voluntary drafting group met for a first go at negotiating revisions to the draft Agenda 21 text (PC/42/Add.10).

The negotiations were constructive, representing a broad cross section of national interests while balancing the concerns of industrialized and developing nations. The interventions proposing substantial revisions to the document reflected the points made in earlier general discussion. The emphasis shifted from disposal issues to waste reduction and recycling initiatives. Canada supported this approach, as well as target-based strategies in these areas, of the kind consistent with domestic Green Plan goals.

Some of the key issues flagged in initial interventions and proposed revisions were:

- Many developing countries highlighted the linkage between health and waste/sewage issues; some felt that while the draft Agenda 21 document acknowledges the link more stress should be given to it.
- The Netherlands, with the approval of Canada and the EC countries, supported proposals for source separation of household wastes, developing markets for recyclables and for promoting the use of recyclable materials, particularly in packaging, consistent with the work of our National Packaging Protocol.
- The UK called for the development of "Centres of Excellence" for training in waste management, building upon appropriate national institutions and encouraging international cooperation through institutional links.
- Colombia and Barbados called for the application of appropriate technologies, including cleaner production technologies, which could result in waste minimization.
- Finally, all countries supported the proposed target that by the year 2000 industrialized countries, and by the year 2020 developing countries, would have implemented programmes to stabilize per capita waste flows to disposal sites.

The full Working Group then met in informal consultations to review the work of the drafting group. The programme areas of "Minimizing Wastes", "Maximizing Waste Re-use" and "Promoting Safe Waste Disposal" received considerable attention until time constraints required closure on discussion. The final programme area, "Extending Waste Disposal Sewage Coverage" was treated summarily with contentious areas and late additions being bracketed for further debate in PrepCom IV. There was no heated debate; as with other waste issues, the only controversial exercise was that of setting targets. The US resisted targets, citing domestic legislation, proposing "policies" instead.

In Programme Area A, "Minimizing Wastes", France called for the introduction of per capita waste reduction rates to be differentiated between urban and rural areas, such reduction rates to be put in place once the target of stabilizing production rates is

fulfilled. Benin proposed that governments and international organizations should cooperate in establishing programmes for the adequate transport, storage and management of foodstuffs and perishable goods in order to reduce their contribution to waste stream flows. Benin also put forward wording requesting that countries, through their education establishments, design teaching materials and training programmes with respect to minimizing waste production and its environmental impacts.

With respect to Programme Area B, "Maximizing Waste Re-use", the Netherlands proposed the objective that countries working with appropriate international institutions could strengthen and increase their waste recycling systems. They also sought to encourage countries to develop markets for recycled goods by establishing programmes which give preference to products and packaging made from recycled materials.

Under Programme Area C, "Promoting Safe Waste Disposal" an additional policy(US)/target was accepted, that by 1995 industrialized countries, and by 2000 developing countries could ensure that at least 50% of all sewage, wastewaters and solid wastes are treated or disposed of in conformity with environmental quality criteria. Argentina proposed that each state provide environmentally appropriate solutions for the wastes it produces within its own territory, making it unacceptable to export to developing countries or dispose of waste in areas which are not subject to state sovereignty. The US asked that this text be square bracketed because of the legal implications.

At the end of the discussion, Colombia restated the G-77 position common to discussion of all sectoral issues: that before any of the specific programmes and actions identified in document PC/WG.II/L.19/Add.1 could be approved, the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms would have to be secured. As had been already agreed for previously debated issues, a section addressing these concerns will be added to each programme area for consideration at PrepCom IV.

## **OUTCOMES AND ASSESSMENT**

The Canadian solid waste objectives set for PrepCom III have largely been satisfied. However, the objective of supporting an increased emphasis on changes in lifestyle, attitude and consumption as a necessary component of waste management strategies requires more attention, and will no doubt receive it at PrepCom IV.

The areas which have been adequately addressed include:

- 1) Assisting developing countries in dealing with their immediate solid waste and sewage service needs by:
  - a) reinforcing the recognition that this issue is linked to health impacts; and
  - b) encouraging technology transfer options and the use of clean technologies to remedy these shortfalls.
- 2) Promoting the reduction of current excessive generation of solid waste and sewage in industrialized countries by:
  - a) giving high priority to the 3R's (reduce, reuse, recycle); and
  - b) supporting the development of international and national imitations for enhancing recycling practices.
- 3) Seeking the stabilization and minimization of per capita waste production for all nations through targets.
- 4) Applying target schemes to recycling initiatives.

Prior to PrepCom IV, Canada could consider discussions with the US on the question of targets, which the US has regularly resisted because their domestic legislation does not use them. We could seek to convey the value Canada has experienced from such an approach, through the Green Plan. Second, we should ensure that our position on the technology transfer issue recognize the need of developing nations for technologies required to combat the acute health threats posed by waste management.

UNCED PREPCOM III  
21 August 1991

**SOLID WASTE AND SEWAGE  
STATEMENT BY CANADIAN DELEGATION**

Mme Chair,

The Canadian delegation statement will be brief and relate to two points in the Agenda 21 document on this issue, PC42/Add. 10.

With regard to Item A, Minimising Wastes: in general we agree that the reduction objectives are valid. We would, however, echo the comments of previous delegations regarding the difficulty of treating this on a global basis, without allowing for the different circumstances of individual countries. A stabilisation of per capita waste production may not be sufficient to reflect significant changes in production and consumption patterns.

Regarding waste production rates: as we noted in our statement on Hazardous Wastes, Canada has a commitment to a 50% reduction of all wastes by the year 2000. This commitment gives priority to, first, reduction in waste production, then to re-use and recycling of wastes. In this context, industrialised countries should be encouraged to set waste reduction targets as opposed to waste stabilisation ones, in order to promote and force the lifestyle changes necessary to reverse current waste production trends.

With regard to Item B, Maximising Waste Re-use: Canada encourages the setting of recycling targets in support of broader waste diversion goals. We have, in fact, already established specific national goals to meet a 50% reduction in waste sent for disposal by the year 2000. We intend to continue pursuing activities to encourage the development of a recycling infrastructure and operations at the national level in accordance with the objectives our waste reduction strategy.

We are confident that these measures will be in harmony with the Agenda 21 proposals of UNCED.

Thank you, Mme Chair.

Statement made by J. Kostash  
Canadian delegate

PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Third session  
Geneva, 12 August-4 September 1991  
Working Group II  
Agenda item 4

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

Revised draft decision submitted by the Chairman

The Preparatory Committee,

1. Welcomes the reports of the Secretary-General of the Conference on 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 concerning the background documents (A/CONF.151/PC/74, A/CONF.151/PC/75, A/CONF.151/PC/76, A/CONF.151/PC/88) and the Options for Agenda 21 (A/CONF.151/PC/42/Add.8-10);

2. Requests the Secretary-General of the Conference to submit at its fourth session, the annex to this decision as contained in documents A/CONF.151/PC/WG.II/L.19 and Add.1-3, as revised, during the informal consultations at the third session;

3. Requests the Secretary-General of the Conference to submit to the Preparatory Committee at its fourth session for its consideration revised options for Agenda 21, indicating the origins of proposals, when they reflect the results of expert meetings, taking into account:

(a) The debate and the relevant decisions taken at this session including on the format of Agenda 21 and means of implementation as contained in document A/CONF.151/PC/L.49.

- including for prevention, minimisation + management of hazardous wastes

(b) The results of the UNEP ad hoc meeting of government-designated experts to consider the draft elements for a possible international strategy and action programme, including technical guidelines for environmentally sound management of hazardous wastes, planned to be held before the end of 1991.

(c) The results of the ad hoc meeting of government-designated experts to be convened by UNEP in association with the IPCS which will consider proposals for an intergovernmental mechanism for risk assessment and management of chemicals and which is to be held in London by mid-December 1991.

ENVIRONMENTALLY SOUND MANAGEMENT OF SOLID WASTES AND SEWAGE-RELATED ISSUES: OPTIONS FOR AGENDA 21

INTRODUCTION

1. Environmentally sound waste management must go beyond simply disposing of, safely, the 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. Defined thus, the options for action under the programme on environmentally sound management of solid wastes and sewage present a unique opportunity to reconcile development with environmental protection.

2. Correspondingly the framework of the options for action is founded on a hierarchy of four objectives:

- Minimizing wastes
- maximizing waste reuse
- Promoting safe waste disposal
- Extending waste disposal service coverage

Such a four-goaled programme constitutes a comprehensive and environmentally-responsive framework for managing wastes in the future.

3. It is recognized that some of these goals cannot be accomplished immediately in either industrialized or developing countries. Changing production and consumption patterns which must characterize improvements in waste management in industrialized countries require public support and incentives to manufacturers and can take considerable time to put into effect. Current consumption levels in developing countries are low and substantial increases will be inevitable as these countries attain basic standards of economic welfare. The instilling of sound waste management policies and approaches now could help ensure a sustainable development process for the future. In addition, some improvement in both the quality of service and environmental protection achieved by present day waste production and disposal practises is required for most developing countries. For the urban poor populations who already reduce and make alternative use much of their wastes the priority is often to have access to safe waste disposal systems.

SECTOR-WIDE OBJECTIVES FOR WASTES

4. Following are the overall sector-wide objectives:



- a. Minimize the generation of waste; where generation of waste cannot be avoided, ensure that all wastes are safely recycled, treated or disposed of.
- b. Ensure that the living and working environment of all people is isolated from all forms of waste
- c. Ensure that waste-related surface and ground water and soil pollution is eliminated

#### PROPOSED PROGRAMME AREAS

5. The following four major waste-related programme areas are proposed as options for consideration by the Preparatory Committee:

MINIMIZING WASTES  
 MAXIMIZING WASTE REUSE  
 PROMOTING SAFE WASTE DISPOSAL  
 EXTENDING WASTE DISPOSAL SERVICE COVERAGE

6. The above programmes are not in any order of priority, as priorities will vary from one country to the next. In fact, for many developing countries the programme to improve and extend waste disposal service coverage will remain the first priority for many years to come. The four programme areas together will help in the achievement of sector-wide goals for wastes in a comprehensive manner. Within each programme area, a number of actions will need to be undertaken and should seek to build upon current activities and programmes at the global, regional, national and local levels.

#### 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 double the quantities of wastes produced by the end of the century and increase quantities by between four and five fold by the year 2025. A preventive waste management approach focused on changes in life-styles and in production and consumption patterns offers the best chance for reversing current trends.

##### Objectives

8. [With the aim to stabilize or reduce the production of

wastes destined for final disposal over an acceptable time frame, countries with international organizations cooperation could establish national production rates per capita, in urban and rural areas based upon the volume of wastes produced in those areas respectively.]

9. Countries in cooperation with international organizations, could strengthen procedures for assessing waste quantity and composition changes and for making waste minimization policies operational.

10. [Some targets of the programme could include:]

- a. By [2000] ensure sufficient national, regional and international capacity to access, process and monitor waste trend information and implement waste minimization policies.
- b. [By [2000] all industrialized countries should have in place programmes to stabilize per capita waste production of waste, destined for final disposal, at the level prevailing at those dates; developing countries should as well work towards the goal to stabilize their waste production rates, without jeopardizing their development prospects.]
- c. [By [2025] produce annual periodic reviews with full global coverage.]
- d. [By the year [2000] all countries, in particular industrialized countries should apply programmes in order to reduce the production of agro-chemical wastes.]

#### Activities

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. The following specific activities could be undertaken to support monitoring:

- a. Relevant UN bodies coordinate the development of methodologies for country-level waste monitoring and use and expand existing monitoring mechanisms such as UNEP's Global Environmental Monitoring System (GEMS); WHO's Drinking Water Supply and Sanitation Coverage Data and Global Epidemiological Statistics; and UNCHS (Habitat)'s Human Settlements Statistical Data Base (HSDB.stat) programme for developing a harmonized data collection system.

- b. Countries, with appropriate international cooperation, identify and strengthen local institutions for gathering the requisite data.
- c. The relevant UN bodies undertake to process the data and report systematically to the countries concerned and an appropriate UN forum.
- d. Countries use the data to assess how environmentally sound their waste policies are and act accordingly.

12. Instruments for waste minimization will need to be identified and widely disseminated. These could include:

- a. Relevant international organizations could undertake an extensive review of the effectiveness of all waste minimization instruments, and identify 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 could be developed.
- b. Countries could make waste prevention and minimization the principal objective of their waste management programmes.
- c. Countries could promote 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 encourage industries and consumers to use types of packaging that can be re-used, in particular refillable packaging.
- d. Countries in accordance with their capacities could implement demonstration and pilot programmes to optimize waste minimization instruments.
- e. \*Governments, especially in developing countries, with cooperation from international organizations, could establish programmes for adequate transport, storage conservation and management of agricultural products, food stuffs and other perishable goods in order to reduce loss of these products, which results in the production of solid waste.

\*[Throughout this document "Governments" also refers to the European Community acting in the sphere of its competence]

13. Conciousness raising, education, information and research aimed at promoting waste minimization are crucial for obtaining citizen and industry support. Countries could consider the following options in the development of their programmes:

- a. Countries, in cooperation with educational establishments could include within school curricula principles and practices of preventing and minimizing wastes and the environmental impacts of waste.
- b. [Countries in cooperation with educational establishments should elaborate pedagogical and teaching materials which would support training programmes aimed to preventing and minimizing the production of wastes and its impact on the environment].
- c. [Countries, together with NGOs, could sensitize the society to the need for waste minimization as an integral part of solid waste management.]
- d. Relevant international organizations could develop media packages for adaptation and use in local campaigns..
- e. Countries could increase funds for applied research on waste minimization and provide an enabling framework for industry to do likewise.
- f. International organizations could intensify and further develop the activities of the networks relating to information exchange on clean technologies and waste minimization.
- g. Government could promote centres of excellence for training in waste management building on appropriate national institutions and encouraging international cooperation including through institutional links.

14. Capacity building will be crucial to allow countries, especially developing countries, to develop and implement waste minimization at the local and national levels. Some of the activities that could be undertaken are:

- a. The relevant UN and other international bodies, in cooperation with countries and where appropriate NGOs, could provide increased technical and financial assistance to build up technical, managerial, planning, monitoring and administrative capacities to implement waste prevention and minimization as the priority

objective of overall waste management programmes.

- b. [Countries could facilitate transfer of waste reduction technologies to industry, and establish concrete national targets for effluents and solid wastes and for raw material use and energy consumption.]

[The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following heading:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development]

B. MAXIMIZING WASTE REUSE

Basis for action

15. The exhaustion of traditional disposal sites, stricter environmental controls governing waste disposal, and increasing quantities of more persistent wastes 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. 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 management.

Objectives

- 16. Countries, in cooperation with international organizations, could strengthen and increase their recycling systems.
- 17. The United Nations should develop an internal recycling programme for main waste streams including paper, to the extent possible, including the use of recycled papers.
- 18. Countries and international organizations could ensure the

availability of information techniques and appropriate policy instruments to encourage and make operational waste recycling schemes.

19. [Some targets of the programme could include:]

- a. [By [2000] [ensure]/[promote] sufficient [financial and technological capacities at the regional, national and local levels] national and local regional capacity to implement waste recycling policies and actions.]
- b. By [2010] all industrialized countries and by [2010] all developing countries should have a national programme including to the extent possible [concrete] targets for efficient waste recycling

#### Activities

20. Information and research is required to identify promising socially-acceptable and cost-effective forms of waste recycling relevant to each country. For example, supporting activities could include:

- a. International and regional organizations could undertake an extensive review of options and techniques for recycling all forms of wastes. Policies for recycling could be made an integral component of national and local waste management programmes.
- b. Countries, with appropriate international cooperation, could assess the extent and practice of waste recycling operations currently undertaken and identify ways by which these could be intensified and supported.
- c. Countries, with appropriate international cooperation, could increase funding for applied research pilot programmes to test out various options for recycling, including the use of small, cottage-based recycling industries; compost production; treated wastewater irrigation; and energy recovery from wastes.
- d. International and regional organizations could produce guidelines and best practices for waste recycling.
- e. Relevant UN bodies, in cooperation with governments and NGOs, could intensify efforts at collecting, analyzing and disseminating to key target groups relevant information on waste issues. Special research grants could be made available on competitive basis for

innovative research projects on recycling techniques.

21. 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. Offer incentives to local and municipal authorities that recycle the maximum proportion of their wastes.
- b. Provide technical assistance to informal waste recycling operations.
- c. Apply economic and regulatory instruments, including tax incentives to support the principle that generators of wastes pay for their disposal.
- d. Provide legal and economic conditions conducive to investments in waste recycling.
- e. Implement specific mechanisms such as deposit/refund systems as incentives for recycling.
- f. Promote the separate collection of recyclable parts of household wastes.
- g. Consider incentives to improve the marketability of technically recyclable waste.
- h. Encourage the use of recyclable materials, particularly in packaging, when feasible.
- i. Encourage the development of markets for recycled goods by establishing programmes.

22. The Transfer of technologies could support waste recycling and reuse:

- a. The United Nations, inter-governmental and other relevant, organizations, could include the transfer of recycling technologies, such as machinery for reusing plastics, within their technical co-operation and aid programmes.
- b. The United Nations, regional organizations, national governments and NGOs could develop and improve existing technologies, especially indigenous technologies, and facilitate their transfer under on-going regional and inter-regional technical assistance programmes.

- c. [National governments could facilitate technology transfer for waste recycling by exempting such technologies from import taxes and other restrictions.]

23. Training will be required to reorient present day waste management practices to include waste recycling. The following is an indicative list of actions that might be incorporated:

- a. The United Nations, international and regional organizations could include waste recycling in-service programmes as integral components of their technical cooperation programmes on waste management, urban management and infrastructure development.
- b. Existing training programmes on water supply and sanitation could be expanded to incorporate techniques and policies for waste recycling.
- c. The advantages and civic obligations associated with waste recycling could be included in school curricula and relevant general educational courses.
- d. NGOs, community-based organizations and public interest groups in collaboration with local municipal authorities could do much to mobilize community support for waste recycling through focused community-level campaigns.

24. Capacity building to support increased waste recycling could focus on the following areas:

- a. Ways by which national governments can make operational national policies and incentives for waste management.
- b. Methods of enabling local and municipal authorities to mobilize community support for waste recycling by involving and assisting the informal sector waste recycling operations and undertaking waste management planning which incorporates resource recovery practices.
- c. [Financial and technical cooperation will be required for resource recovery infrastructure planning and implementation.]

[The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and



non-commercial terms.

Proposals for means of implementation will include the following heading:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development]

C. PROMOTING SAFE WASTE DISPOSAL

Basis for action

25. Even when wastes are minimized and recycling has been maximized, 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 percent of urban wastes receive any form of treatment and only a small proportion of treatment is in compliance with any acceptable quality standard. Fecal matter treatment and disposal should be accorded due priority given its potential threat to human health.

Objectives

26. Countries, with appropriate international cooperation, could treat and dispose safely an increasing proportion of the generated wastes with time.

27. [Some targets of the programme could include]/[Policies could include]:

- a. By [1995] all countries could establish waste treatment and disposal quality criteria based on the nature and assimilative capacity of the receiving environment.
- b. By [2000] countries could establish sufficient capacity to undertake waste-related pollution impact monitoring and conduct regular surveillance [including epidemiological surveillance].
- c. By [1995] industrialized countries and by [2000] developing countries could ensure that at least 50 percent of all sewage, wastewaters and solid wastes are

treated or disposed of [in conformity with environmental quality criteria].

- d. By [2025] countries could dispose of all sewage, wastewaters and solid wastes [in conformity with internationally agreed and accepted environmental quality criteria.]

### Activities

28. 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:

- a. Relevant United Nations agencies and other relevant international organizations could cooperate with governments in assembling and analyzing the scientific evidence and association of pollution impacts of wastes in the environment in order to formulate and disseminate recommended international scientific criteria and guidelines.
- b. Countries could establish national and, where relevant, local environmental quality standards based on international scientific criteria and guidelines.
- c. Relevant international organizations and institutions could include within their technical cooperation programmes and agreements the provision of monitoring equipment and requisite training for their use.

29. Institutional reforms and capacity building will be indispensable if countries are to be able to quantify and mitigate waste-related pollution. Some activities to achieve this objective could include:

- a. [Each and every state should provide an environmentally sound solution, for the wastes it produces within its own territory, without it being acceptable to be exported to third countries or disposing it in areas, which are not subject to state sovereignty].
- b. Countries that do not have independent environmental control bodies could be encouraged to establish these at national and local levels. International organizations and donors could support needed manpower skill upgrading and provision of equipment.
- c. Countries could empower pollution control agencies with

the requisite legal mandate and financial capacities to carry out their duties effectively.

- d. International agencies, formal technical training establishments and local NGOs could provide both formal and in-service training focused on pollution control, waste treatment and disposal technologies, and operations and maintenance of waste-related infrastructure. Inter-country staff exchange programmes could also be established.
- e. Countries, municipalities and local authorities, in collaboration with UN agencies, international organizations and funding agencies could focus, [as a first priority], on the rehabilitation and maintenance of existing facilities and [concentrate] technical assistance on improved maintenance practices and techniques; followed by the planning and construction of waste treatment facilities.
- f. [Countries, municipalities and local authorities with appropriate international cooperation could establish programmes to ensure the source segregation and safe disposal of the hazardous components of municipal solid waste].
- g. [Countries with appropriate international cooperation could develop human wastes management plans giving due attention to the development and application of appropriate technologies and corresponding financial resources for their implementation].

30. Information and research on various aspects of waste-related pollution control will be crucial for achieving the objectives of this programme. Activities in this area could include:

- a. [An information clearing house to be established within a relevant UN agency with extensive networks at the regional, national and local levels to collect and disseminate information on all aspects of waste management, including safe disposal. Through the clearing house, strengthen existing regional networks and create new ones in regions that don't have them].
- b. Relevant UN agencies could prepare guidelines and technical reports on subjects such as the integration of human settlements land use planning with waste disposal; environmental quantity criteria and standards; waste treatment and safe disposal options;

industrial waste treatment; and landfill operations.

- c. Research on critical subjects such as low-cost, low-maintenance wastewater treatment systems, safe sludge disposal options, industrial waste treatment and low ecologically-safe waste disposal technologies could be supported by the international donor community.

31. In appraising development projects in the fields of water supply and waste collection, the need for investments in waste treatment facilities should be considered.

[The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following heading:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development]

#### D. EXTENDING WASTE DISPOSAL SERVICE COVERAGE

##### Basis for Action

32. By the end of the century over 2.0 billion people will be without access to basic sanitation and an estimated half of urban populations in developing countries will be without adequate solid waste disposal services. As many as 5.2 million people, including 4 million children under 5 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

33. The overall objective of this programme is to provide

health-protecting, environmentally-safe waste collection and disposal services to all people. Specific supportive targets could be:

- a. By [2000] all countries should have necessary technical, financial and human-resource capacity to ensure the provision of waste services commensurate with needs;
- b. By [2025] all urban populations should be provided adequate waste services;
- c. By [2050] full urban waste service coverage should be maintained and full rural coverage with sanitation achieved.

#### Activities

34. Other Agenda 21 programme actions would contribute to the provision of waste services. These include:

- a. The Drinking Water Supply and Sanitation; and the Water and Sustainable Urban Development Programme areas of the Agenda 21 proposals on Freshwater Resources (document: A/CONF.151/PC/42/Add.7).
- b. The Environmental Infrastructure; and Human Settlements Management Programme areas of the Agenda 21 proposals on Human Settlements (document: A/CONF.151/PC/55).
- c. "The Basic Health Needs Related to The Environment" programme area of the Agenda 21 proposals on Environmental health aspects of development (document: A/CONF.151/PC/54).

35. Since most of these initiatives will require interventions within the human settlements context, an overall umbrella programme that coordinates and concentrates international efforts within the human settlements programme and leads to action at the national and local levels will prove essential.

The following activities are proposed under this programme area:

36. [Policy changes at the national and local levels could enhance the rate of waste service coverage extension. These could include:

- a. The full recognition and use of the range of low-cost options for waste management including where

appropriate their institutionalization and incorporation within codes of practice and regulation.

- b. High priority given to the extension of waste management services to all settlements irrespective of their legal status.
- c. Integration of the provision and maintenance of waste management services with other basic services such as water supply and stormwater drainage.]

37. [Considerable financial and technical cooperation will be required to increase coverage. National governments, in collaboration with the United Nations, relevant international organizations and multilateral financial institutions could undertake many activities of which the following are a sample:

- a. Adjust priorities within waste management programmes to give higher priority to meeting the waste disposal service needs of the unserved, especially, the unserved urban poor.
- b. Establish financing mechanisms for waste management service development in deprived areas including appropriate modes of revenue generation.
- c. Apply polluter pays principle by setting waste management charges at rates that reflect the true economic costs of providing the service and ensure that those that generate the wastes pay the full cost of disposing of it in an environmentally safe way.
- d. Participatory planning and implementation procedures that involve communities, especially women, could be institutionalized.
- e. Inter-country transfer of relevant technologies, especially technologies for high density settlements, could be encouraged.]

38. Information and research activities could be enhanced. Countries, in cooperation with appropriate international organizations and NGOs could, 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.

- 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. A Settlement Infrastructure and Environment Programme could be launched following the Conference to co-ordinate the activities of all UN agencies involved in this area and include a clearing house for information dissemination on all waste management issues.
- d. Launch campaigns to encourage active community participation in waste management particularly household waste.

39. International organizations, national and local governments in collaboration with NGOs, could provide focused training on low-cost waste disposal options and participatory techniques for their planning and delivery. Inter-country staff exchange programmes among developing countries could form part of such training.

40. 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 could in collaboration with national and local governments develop and make operational management information systems (MIS) for municipal record keeping and accounting and for efficiency and effectiveness assessment.

[The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following heading:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development]]

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## ENVIRONMENTALLY SOUND MANAGEMENT OF TOXIC CHEMICALS

### **SUMMARY**

The main contentious issue, as in other discussions of options for Agenda 21, was the inclusion of the need for provision of new and additional financial resources to developing countries to assist them in implementing actions under the programme areas. Developing countries are concerned about the transboundary movement of toxic products and dangerous wastes, as well as the need to develop the institutional capacity to assess chemical risks and control illegal traffic.

The need for universal application of the prior informed consent (PIC) provisions of the London Guidelines is recognized along with the need for international coordination of chemical risk assessment.

Canada will wish to address the implications of square bracketed text dealing with restrictions on production and use of asbestos.

### **Documentation**

A/CONF.151/PC/74	-	Background Document
A/CONF.151/PC/WG.II/L.21/Rev.1	-	Decision Document on all Wastes/Toxics issues
Annex IV to L.21/Rev.1	-	Options for Agenda 21: Revised Draft

### **PREPCOM DISCUSSION**

The Canadian objectives were the following:

- To promote the life cycle approach ("cradle to grave") to management of chemicals;
- To promote thorough prior assessment of economic, health, safety and environmental consequences of control measures and alternative technologies considered for adoption in the national management of toxic chemicals;

- To encourage adoption of measures that will assist developing countries to develop the expertise and legislative infrastructure to be able to take timely and informed decisions on their own regarding the use of chemicals;
- To promote adoption of compatible approaches to chemical management by countries.

The opening discussion reiterated many of the concerns and points raised during the debate during PrepCom II, which are fully reported in the Canadian delegation report on PrepCom II. The informal consultations of the Working Group focused on A/CONF.151/PC/42/Add.8, the initial Secretariat paper proposing Options for Agenda 21. The final result of these discussions is Annex IV to L.21/Rev.1. All programme areas contain the developing country caveat (square bracketed) that the implementation of actions under Agenda 21 in developing countries is subject to provision of new and additional financial resources.

In the following report, paragraph numbers refer to Annex IV of A/CONF.151/PC/WG.II/L.21/Rev.1, the revised draft Agenda 21 options.

At the outset, several delegations noted that chemicals are essential, that the solution is not to ban but to use them safely, and to not over-use. In addition, the importance of the linkages with other issues was highlighted by several delegations; for example, the debate on pesticides cannot ignore the implications for agriculture, health, and freshwater.

Assessment of chemical risk was identified as critical; it requires a massive effort, and is costly, which makes it a natural for international cooperation and which dictates the need for cooperation in setting priorities. The need to take into account the work of all organizations, including non-UN organizations such as OECD was stressed in many interventions (including that of Canada). In the context of priority setting, the need to strengthen the IPCS was identified by many delegations. Collaboration with industry was also identified as essential (paragraph 14).

Several delegations referred to the coming WHO/ILO/UNEP meeting (London, 16-19 December) of government designated experts which will consider proposals for an intergovernmental mechanism for risk assessment and management of chemicals, as an important input for

Agenda 21. L. 21/Rev.1 requests the Secretary General to take the results of this meeting into account in preparing revised options for Agenda 21.

Effective education, communications and awareness programmes were emphasised, particularly as a prerequisite for implementing the "community right to know" approach. This principle has been incorporated as a responsibility of governments (paragraph 41(b)).

The need to organize staff training programs in collaboration with industry and trade unions was emphasized by several delegations, and has been included in Annex IV (paragraph 41(g)).

Calls for making the principle of Prior Informed Consent (PIC) legally binding were reiterated (Malaysia, Mali). Although there is general agreement that the PIC principle should be applied consistently throughout the world, the suggestion that it be made legally binding is square bracketed (paragraph 27 (c)).

Harmonization, particularly of classification and labelling, was also identified as a priority. Sweden stated that this is important not only for safety but for trade; Malaysia noted that the system used for transport would be a good choice as a standard. Brazil cautioned that a global system for harmonizing should not become a non-tariff barrier against developing countries which might find it more difficult to meet the international standards. Some delegations noted that labelling should be done not only in all appropriate languages, but also in symbols for those who are illiterate. These points are reflected in paragraph 21.

The concerns of developing countries with respect to transboundary movement resulted in the addition of an additional objective dealing with the control of exports of banned and restricted chemicals to developing countries (paragraph 5(b)), as well as a call on governments to prohibit the export of chemicals, the sale of which is banned in the state of origin (paragraph 33(o)). Both provisions are contentious and are square bracketed.

Capacity building was, not unexpectedly, identified as critical for all programme areas. Some delegations commented that technical and financial assistance should extend to the private sector and NGOs as well as to governments. Others (Sweden) noted that international actions can benefit national activities only if national capacity exists, which requires political will.

Some delegations (Finland) expressed concern that some of the targets proposed in the draft Agenda 21 document may be unrealistic. As a result, the implementation dates for some programme areas (paragraphs 19, 26 and 39) are square bracketed.

Annex IV contains two references (square bracketed) to a proposed restriction and phase-out of production and use of asbestos. Paragraph 33(h) implies that asbestos is on the prohibition list of one or more international conventions, which is not the case according to Energy, Mines and Resources Canada. Paragraph 35(e) is contentious in that most industrialized countries have opted to reduce exposure to asbestos rather than prohibit its production and use. Both references were proposed by Venezuela, supported by Colombia.

## OUTCOMES AND ASSESSMENT

The outcome is a revised Agenda 21 document which is heavily square bracketed. The requirement for adequate new and additional resources is present in each programme area (square bracketed) and will be the obvious focus of debate at PrepCom IV.

The subject of transboundary movement continues to be a priority for developing countries, as well as the need to strengthen their capacities to assess chemical risks and control illegal traffic. Recognition of the need for international cooperation in the development of hazard and risk data through strengthening of IPCS is in line with Canadian objectives to promote compatible international chemical management. The call for full participation of industry will expedite the adoption of cradle to grave management through the application of product stewardship programmes.

Canada will wish to address the implications of proposals dealing with restrictions on asbestos production and use.

UNCED PREPCOM III  
21 August 1991

**ENVIRONMENTALLY SOUND MANAGEMENT  
OF TOXIC CHEMICALS**

**POINTS INCLUDED IN STATEMENT BY CANADIAN DELEGATION**

1. The background paper (A/CONF.151/PC/74) does a good job of presenting the main elements of life-cycle management, and the many international programs that are concerned with the various elements.
2. Probably the most important conclusion that can be drawn from the background paper is the need for coordination and cooperation among the plethora of international agencies that are involved with chemical risk assessment and management.
3. Canada believes that UNCED should focus on means to achieve this coordination, so that overlap and duplication is minimised, and essential components of global chemical life-cycle management are not overlooked. In this regard, the third session of the Preparatory Committee should consider whether or not an existing international organization could be charged with coordinating and monitoring progress on the international strategy, or whether a new mechanism need be established. PrepCom III might also consider whether a critical review of the existing international programs should be carried out, from the point of view of what does each contribute to achievement of the essential elements of the international strategy. This could enable PrepCom IV to consider how the work could best be handled by the various international organizations, to implement the life-cycle management program, and what new work might be needed. Non-UN organizations (particularly the OECD) would need to be included in such a review, and the results of the London meeting would be essential input.

Comments Regarding Agenda 21 Proposals  
A/CONF.151/PC42/Add.8

Our comments are fairly general; we look forward to seeing the written detailed proposals from the delegations who have spoken this morning.

PROGRAMME AREA A: Expanding and Accelerating International Assessments

- Again, coordination among international organizations is essential. Paragraph 14 notes the importance of coordination, but paragraph 15 (objective) makes no mention of it. The objective should be expanded to take into account the need for coordination.
- The role of non-UN organizations (e.g. OECD) in international assessments should be recognized. The OECD has initiatives concerning assessment of high volume chemical, guidelines for test methods, good laboratory practice, mutual acceptance of data, etc., all of which should be taken into account and accepted by other organizations wherever possible to avoid duplication.

PROGRAMME AREA B: Harmonization of Classification and Labelling of Chemicals

- This is an important activity, and the Secretariat's paper has covered the issue well. Of particular importance will be harmonization of transportation and workplace requirements, to minimize confusion, double labelling, etc.

PROGRAMME AREA C: Information Exchange

- Canada supports the recommended objectives. We would add that there is an important linkage to other elements such as training. For example, the PIC procedures will not work as intended unless importing countries can evaluate their own potential exposure scenarios.

PROGRAMME AREA D: Establishment of Risk Reduction Programs

- Canada supports the objectives and possible activities.

PROGRAMME AREA E: Strengthening National Capabilities

- Canada believes that the objective stated in paragraph 39 is quite likely to be overly optimistic.
- Countries wishing to develop national legislation could benefit from access to legal experts who could advise them on various approaches taken in other countries, and the successes and failures of these approaches. Such advice would be complementary to the model national legislation being developed by UNEP.

Delivered by J. Kostash  
Delegation of Canada

PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Third session  
Geneva, 12 August-4 September 1991  
Working Group II  
Agenda item 4

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

Revised draft decision submitted by the Chairman

The Preparatory Committee,

1. Welcomes the reports of the Secretary-General of the Conference on 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 concerning the background documents (A/CONF.151/PC/74, A/CONF.151/PC/75, A/CONF.151/PC/76, A/CONF.151/PC/88) and the Options for Agenda 21 (A/CONF.151/PC/42/Add.8-10);

2. Requests the Secretary-General of the Conference to submit at its fourth session, the annex to this decision as contained in documents A/CONF.151/PC/WG.II/L.19 and Add.1-3, as revised, during the informal consultations at the third session;

3. Requests the Secretary-General of the Conference to submit to the Preparatory Committee at its fourth session for its consideration revised options for Agenda 21, indicating the origins of proposals, when they reflect the results of expert meetings, taking into account:

(a) The debate and the relevant decisions taken at this session including on the format of Agenda 21 and means of implementation as contained in document A/CONF.151/PC/L.49.

- including for prevention, minimisation + management of hazardous wastes



(b) The results of the UNEP ad hoc meeting of government-designated experts to consider the draft elements for a possible international strategy and action programme, including technical guidelines for environmentally sound management of hazardous wastes, planned to be held before the end of 1991.

(c) The results of the ad hoc meeting of government-designated experts to be convened by UNEP in association with the IPCS which will consider proposals for an intergovernmental mechanism for risk assessment and management of chemicals, and which is to be held in London by mid-December 1991.

**ENVIRONMENTALLY SOUND MANAGEMENT OF TOXIC CHEMICALS****PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC  
AND DANGEROUS PRODUCTS AND WASTES****OPTIONS FOR AGENDA 21****I. 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 extend the environmentally sound management of toxic chemicals, to undo the mistakes of the past, and to harness the carefully chosen use of chemicals to the causes of sustainable development and an improved quality of life in every country and every community across the globe. One of the major problems to tackle is the lack of sufficient scientific information for the assessment of risks of a great number of chemicals. Another problem is the lack of resources to assess chemicals for which data are at hand.

2. Other problems are related to the fact that the introduction of chemicals and of chemically-related industries in developing countries, which as yet lack the infrastructure and trained human resources for chemical safety, is often carried out on a far from environmentally-sound basis.

3. Gross chemical contamination, with grave damage to human health and the environment, has continued in recent times in some of the world's most important industrial areas. Restoration will require major investments and development of new techniques. The importance of long-range transport of pollution, with effects which can extend even to the fundamental chemical and physical processes of the Earth's atmosphere and climate, is only recently becoming understood.

4. A considerable number of international bodies are involved in work on chemical safety. In many countries work-programs 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 in order to achieve an environmentally sound management of chemicals.

**II. OPTIONS FOR AGENDA 21****OVERALL OBJECTIVES**

5. Overall objectives are:

a. Beneficial use of chemicals for sustainable development and safe

manufacturing with minimum risks to health and the environment.

- b. [Prevention of the uncontrolled exports of banned and severely restricted chemicals to developing countries which have neither the know-how, nor the capacity to manage such chemicals.]
- c. [Promotion of specific procedures to enable countries concerned to take well informed decisions on the management of toxic chemicals.]
- d. [Adoption of strategies precautionary and anticipatory in approach for environmentally sound management of chemicals in each country not later than the year 2000 with implementation as soon as possible thereafter.]

### PROPOSED PROGRAMME AREAS

6. The following major programme areas are proposed as options:

- a. Expanding and accelerating the 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

7. Common for the five programme areas is that their successful implementation is highly dependent, on one hand, on intensive international work, still better coordination of current international activities, and on the other hand on the identification and application of technical, scientific, educational and financial means, in particular for developing countries. To varying degree the programme areas involve hazard assessment, based on the intrinsic properties of chemicals, risk assessment, including assessment of exposure, risk acceptability and risk management.

8. The collaboration on chemical safety between UNEP/IRPTC, ILO and WHO in the IPCS should be the nucleus for international co-operation on environmentally sound management of toxic chemicals. All efforts should be made to strengthen this programme. Cooperation with other programmes, and particularly the OECD and EC Chemicals Programme, should be promoted.

9. Increased coordination of UN 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, to be held in London in December 1991 should further explore this matter.

10. The broadest possible awareness of chemical risks is a prerequisite for achieving chemical safety. Therefore, the principle of community right to know should be recognized and the industry initiative on responsible care and product stewardship should be developed and promoted. Large industrial enterprises including transnational corporations should apply adequate standards of operation in all countries in order not to damage human health and the environment.

#### A. EXPANDING AND ACCELERATING THE INTERNATIONAL ASSESSMENT OF CHEMICAL RISKS

##### Basis for Action

11. The assessment of risks to human health and environment that a chemical may cause is a prerequisite to planning for its safe and beneficial use. Out of the approximately 100,000 chemical substances in commerce and the thousands substances of natural origin which human beings come into contact, many substances appear as pollutants and contaminants in food, commercial products and the various environmental media. Fortunately the exposure to most chemicals is rather limited as most are used in very small amounts. Some 1500 chemicals cover over 95 per cent of the 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.

12. Risk assessment is resource-intensive. It could be made cost-effective by strengthening international co-operation and better coordination, thereby making best use of available resources and avoiding unnecessary duplication of efforts.

##### Objective

13. Strengthening of international risk assessment. About 500 priority chemicals or groups of chemicals, including major pollutants and contaminants of global significance, could have been assessed by the year 2000 using current selection and assessment criteria.

##### Activities

14. Relevant international organizations with active participation of Governments\* and industry [should]:

- (a) Strengthen and expand programmes on chemical risk assessment within the UN system (IPCS: UNEP, ILO, WHO), based on agreed approach to data quality, assurance, application of assessment criteria, peer review and linkages to risk management activities.

\*[Throughout this document "Governments" also refers to the European Community acting in the sphere of its competence]

- (b) Produce guidelines for acceptable exposure for a greater number of substances, based on peer review and scientific consensus distinguishing between health-based exposure limits and those relating to socio-economic factors.
- (c) Give high priority to hazard assessment of chemicals, i.e. of their intrinsic properties as the appropriate basis for risk assessment.
- (d) 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.
- (e) Promote mechanisms to increase collaboration amongst government, industry, academia and relevant NGOs, 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.
- (f) 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 hazards posed by chemicals.
- (g) Develop criteria for priority-setting of chemicals of global concern for assessment.
- (h) Promote research on and validation of methods to those using test animals, thus replacing the use of animals for testing purposes.
- (i) Promote relevant epidemiological studies with a view to establishing a cause-effect relationship between exposure to chemicals and the occurrence of certain diseases.
- (j) Generate data necessary for assessment building on inter alia, IPCS, (UNEP, WHO, ILO), OECD and EC programmes. Industry should participate actively.
- (k) Encourage the development of procedures for countries to exchange with other countries' assessment reports on chemicals for use in national chemical assessment programmes.
- (l) Strengthen research for substitution of toxic chemicals.

[The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional

financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following heading:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development]

## **B. HARMONIZATION OF CLASSIFICATION AND LABELLING OF CHEMICALS**

### **Basis for Action**

15. Adequate labelling of chemicals, based on assessed risks to health and environment, is the simplest and most efficient way of indicating how to handle and use chemicals safely.

16. For the safe transport of dangerous goods, including chemicals, a comprehensive scheme elaborated within the UN system is in current use. This scheme takes mainly into account the acute hazards of chemicals.

17. Globally harmonized classification and labelling systems are not yet available to promote the safe use of chemicals at the workplace, in the home, etc. Classification of chemicals can be made for different purposes and is a particularly important tool in establishing labelling systems.

18. [IPCS, in consultation with other concerned bodies, should initiate the process of harmonizing existing classification systems.]

### **Objective**

19. A globally harmonized classification and labelling system including easily understandable symbols [should] be available by the year [2000].

### **Activities**

20. International bodies including, *inter alia*, IPCS (UNEP, ILO and WHO), FAO, and with the cooperation of IMO, OECD and EC [should] establish a coordinating group to:

- (a) Make comparative studies of existing classification and labelling systems as a starting point for establishing general principles for a globally harmonized system.
- (b) 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:

- (c) elaborate a harmonized classification and labelling system.

21. Relevant international organizations and Governments [should urgently]:

- Finalize and establish a harmonized classification and labelling system for use in all UN languages [including adequate pictograms]. Such a labelling system should not lead to the imposition of unjustified trade barriers.

[The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following heading:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development]

C. INFORMATION EXCHANGE ON TOXIC CHEMICALS AND CHEMICAL RISKS

Basis for action

22. The London guidelines are addressed to governments with a view to assisting them in the process of increasing chemical safety in all countries through the exchange of information on chemicals.

23. The export to developing countries of chemicals which have been banned in one or more 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, due to inadequate infrastructure for controlling the availability, storage, formulation and disposal of chemicals.

24. In order to address this issue provisions for Prior Informed Consent (PIC) procedures were introduced in 1989 in the "London Guidelines for the exchange of information on chemicals in International Trade" (UNEP/IRPTC) 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 are being pursued with a view to create a binding instrument on products banned or severely restricted in the domestic market].

### Objective

25. Intensified exchange of information on chemical safety between all involved parties
26. Full implementation of the Prior Informed Consent procedure [including mandatory applications through legally binding instruments] contained in the amended London Guidelines and in the FAO International Code of Conduct by the year [2000].

### Activities

27. Governments and industries of countries exporting chemicals as well as international organizations [should]:

- (a) provide knowledge and information on 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.
- (b) 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, e.g. data provided through the FAO/UNEP joint programme on PIC (Decision Guidance Documents) and those submitted by industry or by other sources.
- (c) [Invite UNEP and FAO to work expeditiously towards the conclusion of the necessary legally binding instrument]

Strengthen international institutions and networks such as the IRPTC, responsible for information exchange on toxic chemicals.

Improve database information systems on Toxic Chemicals, including emission inventory programmes, through provision of training as well as soft- and hardware and other facilities.

- (d) Cooperate in strengthening and expanding the network of designated national authorities and establish a technical exchange programme to produce a core of trained personnel within each participating country.
28. UN organizations should provide all information material on toxic chemicals in all



UN languages.

[The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following heading:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development]

#### D. ESTABLISHMENT OF RISK REDUCTION PROGRAMMES

##### Basis for Action

29. There are often alternatives to hazardous chemicals currently in use. Thus risk reduction can sometimes be achieved by using other chemicals or even non-chemical methods. The classical example of risk reduction is the substitution of harmless or less harmful substances for harmful ones. Setting standards for chemicals in each environmental media, food, consumer goods, etc, is another example of risk reduction. In a wider context risk reduction involves international approaches to reduce the risks of selected chemicals taking into account the entire life cycle of the chemicals. Such approaches could encompass both regulatory and non-regulatory measures including, *inter alia*, the promotion of the use of cleaner products and technologies, product labelling, use limitations, and the phasing out or banning of chemicals.

30. In the agricultural area, integrated pest management including biological control is one way of risk reduction.

31. 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.

##### Objective

32. To eliminate unreasonable risks and reduce risks to the extent economically feasible, posed by chemicals employing a broad-based approach, involving a wide range of risk reduction options and by taking precautionary measures.

## Activities

### 33. Governments [should]:

- (a) Adopt policies based on the pollution preventions and the lifecycle approach to chemical management, covering manufacturing trade, use and disposal.
- (b) [Adopt policies and legal frameworks and procedures to identify, regulate and minimize the use of hazardous chemicals, by substitution, severely restricting the use, and phasing out of the production and use, as a priority for those chemicals which are on the prohibition lists of international conventions, in particular asbestos materials and organohalogen compounds.]
- (c) Carry out national reviews of earlier accepted pesticides and reviews of the possible substitution of other pest-control methods, particularly for pesticides which are toxic-persistent and/or bio-accumulative.
- (d) Encourage national and regional work to harmonize evaluation of pesticides.
- (e) Increase efforts to identify national needs for standard setting and implementation in the context of the FAO/WHO Code Alimentarius in order to minimize adverse effects of chemicals in food.
- (f) Develop national policies and adopt the necessary regulatory framework for prevention of accidents (land use, planning, permit systems, reporting requirements on accidents, etc.) and work with UNEP's international directory of regional response centres and APPEL programme.
- (g) Cooperate in the development of chemical risk communication guidelines at the national level to promote information exchange with the public.
- (h) [Develop programmes including research, to replace toxic chemicals with alternative clean production substitutes, and especially such toxic chemicals for which there is reason to believe that their use may need to be restricted or banned, including the ones which are on the prohibition list of international conventions, in particular asbestos material and organohalogen compounds]
- (i) Collaborate to developed common criteria to determine which chemicals are suitable candidates for concerted risk reduction activities.
- (j) Undertake concerted activities to reduce risks of selected chemicals, taking into account the entire life cycle of the chemicals. These activities could encompass both regulatory and non-regulatory measures including: the promotion of the use of cleaner products and technologies, emission inventories; product labelling; use limitations, economic incentives; and the phase out or banning of chemicals.

- (k) Reduce in the over-dependence on the use of agricultural chemicals through alternative farming practices, integrated pest management or other appropriate means.
- (l) Develop policies for manufacturers, importers and others using toxic/hazardous chemicals to disclose toxicity information declaring risks and emergency response arrangements;
- (m) [Require] manufacturers, importers and others using toxic/hazardous chemicals to develop emergency response procedures and preparation of on-site and off-site emergency response plans.
- (n) Encourage large industrial enterprises including transnational corporations and other enterprises to introduce policies and commitment to adopt equivalent or not less stringent standards of operation, as in the country of origin.
- (o) [Prohibit the exporting of chemical products, the sale of which is banned in the state of origin].
- (p) Identify, assess, reduce, and minimize, or eliminate as far as feasible by environmentally sound disposal, risks from storage of outdated chemicals.

34. Industries [could]:

- (a) [Develop an internationally agreed upon code of principles for the management of trade in chemicals].

35. International organizations [could]:

- (a) Formalize networks of emergency response centres.
- (b) Promote technology that would minimize the use of hazardous chemicals and processes in all countries.
- (c) Promote exchange of information on national and regional activities to reduce the risks of chemicals.
- (d) Coordinate concerned risk reduction activities.
- (e) [Promote and develop legal instruments and mechanisms to phase out the production and use of asbestos materials, formulating programmes to substitute them for safer alternative].

[The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional

financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following heading:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development]

#### E. STRENGTHENING OF NATIONAL CAPABILITIES AND CAPACITIES FOR MANAGEMENT OF CHEMICALS

##### Basis for Action

36. Many countries lack national systems to cope with chemical risks. In several countries with systems in place there is an urgent need to make the systems more efficient.

37. Basic elements for national sound management of chemicals are: (i) adequate legislation; (ii) information gathering and dissemination; (iii) capacity for risk assessment and interpretation; (iv) establishment of risk management policy; (v) capacity for implementation and enforcement; (vi) capacity for rehabilitation of contaminated sites and poisoned persons.

38. As management of chemicals takes place within a number of sectors, related to various national ministries, experience suggests that an interministerial coordinating mechanism is essential.

##### Objective

39. 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 by the year [2000].

##### Activities

40. International organizations [should]:

- (a) Prepare guidelines with advice and check lists for enacting, legislation in the chemical safety field.
- (b) [Support countries, particularly developing countries, to develop and further strengthen national legislation and its implementation.]
- (c) [Build on past, present and future risk assessment works at international level, to support countries, particularly developing countries to develop and

strengthen risk assessment capabilities at national and regional levels to minimize and when appropriate prevent risk in the manufacturing and the use of toxic and hazardous chemicals.]

- (d) Promote full implementation of UNEP's APPEL programme and in particular the international directory of emergency response centres.
- (e) Enhance technical training for developing countries in relation to risk management.
- (f) Cooperate with developing countries in the setting up of an institutional mechanism at national level and the development of appropriate tools for management of chemicals.
- (g) Arrange at all levels of production and use initiation courses aimed at staff working on chemical safety issues.
- (h) Develop mechanisms to make maximum use in countries of internationally available information.
- (i) 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.
- (j) Invite UNEP to develop, agree to, and implement guiding principles for accident prevention, preparedness and response for governments, industry and the public, building on the OECD and ECE work in this area.
- (k) Establish programmes which provide the public with information about chemical stockpiles environmentally safer alternatives and emissions.
- (l) To cooperate with developing countries in strengthening their institutional and regulatory capacities in order to prevent illegal international traffic in toxic and dangerous products and wastes.

41. Governments [should] at national level:

- (a) [Establish an interministerial coordinating mechanism, presided over by a senior member of the government, to provide liaison between all parties involved in chemical safety activities (e.g. agriculture, education, industry, labour, health, transportation, police, civil defense, economic affairs, research institutions, poison control centres).]
- (b) Direct information campaigns to the general public to increase the awareness of problems on chemical risks including programmes providing information about chemical stockpiles, environmentally safer alternatives and emission inventories which could also be a tool for risk reduction.

- (c) In conjunction with IRPTC, establish national registers and databases for chemicals.
- (d) Develop an institutional mechanisms for the management of chemicals.
- (e) [Develop networks of emergency response centres, including poison control centres].
- (f) Develop national and local capabilities to respond to accidents by full implementation of the APELL and similar programmes and regularly tested and updated emergency plans consistent with the OECD guiding principles on accident prevention, preparedness and response, where appropriate.
- (g) Organize, in collaboration with industry and trade unions, training programmes in management of chemicals, including emergency response, targeted at all levels.
- (h) In cooperation with industry develop emergency response procedures, identifying necessary means and equipment in industries and plants to reduce impacts of accidents.
- (i) [Adopt legislation to prevent illegal international traffic in toxic and dangerous products and wastes and to strengthen institutional capacities for this purpose.]/[Employ measures, primarily in the area of enforcement, to prevent the illegal international traffic in toxic and dangerous products and wastes and strengthen institutional capacities for this purpose.]

[The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following heading:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development] ]

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## ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS AND WASTE

### SUMMARY

There was a relatively short debate on this issue, with the African countries continuing to stress its importance in the sense that all traffic is illegal under the Bamako Convention. This resulted in the inclusion in Annex IV of the decision document covering all waste issues, dealing with Toxic Chemicals, of a paragraph calling upon international organizations to cooperate with developing countries (changed from the original proposal to "provide assistance to developing countries") in strengthening institutional and regulatory capacities to prevent illegal traffic in toxic products and wastes.

Also included are two options (square bracketed) for action by national governments in preventing illegal traffic. Both are compatible with Canadian objectives, but further discussion will be necessary before the final implications for Canada are known.

### Documentation

A/CONF.151/PC/88	-	Background Document
A/CONF.151/PC/WG.II/L.21/Rev.1	-	Decision Document on all Wastes/Toxics issues
Annex IV to L.21/Rev.1 (See documentation for Toxic Chemicals)	-	Revised Draft Options for Agenda 21

### PREPCOM DISCUSSION

The Canadian objectives were the following:

- To endorse the principle that illegal traffic is a criminal activity;
- To support the development of appropriate legal and administrative measures to enforce domestic regulations.



A relatively short debate was held on this issue. African countries (Benin, Mauritania, Lesotho) reiterated the importance of the Bamako Convention; Mauritania noted that the concept of "illegal" may be misunderstood, under Bamako, all traffic is illegal. Several delegations pointed out that while adherence to Basel and the development of regional conventions or protocols are important, national legislation is also required to back up these conventions and protocols. Greenpeace International stated that regional agreements should be part and parcel of the documents to be approved at Rio and should be reflected in the Earth Charter. Malaysia proposed that Agenda 21 include an action plan asking all countries to introduce national legislation to severely punish all criminals practising in illegal traffic of hazardous and toxic products.

## OUTCOMES AND ASSESSMENT

Discussion of this item resulted in the inclusion in the revised draft options for Agenda 21 dealing with Toxic Chemicals (Annex IV to A/CONF.151/PC/WG.II/L.21/Rev.1) of a paragraph (40(l)) calling upon international organizations to cooperate with developing countries in strengthening their institutional and regulatory capacities to prevent illegal traffic. The original proposal contained the phrase "provide assistance to developing countries". All programme areas in Annex IV contain the developing country caveat (square bracketed) that implementation of actions under Agenda 21 in developing countries is subject to provision of new and additional financial resources.

Also included in Annex IV is an item (para 41(i)) containing two square bracketed options under which national governments could prevent illegal traffic. One calls for the adoption of legislation to prevent illegal traffic in toxic and dangerous products and wastes, and the other specifies the use of enforcement measures to prevent the illegal international traffic in these products. Both include the need to strengthen institutional capacities for this purpose.

In principle, this decision meets both of Canada's objectives, but further discussion will be required at PrepCom IV before the square brackets are removed.



## **ENVIRONMENTALLY SOUND MANAGEMENT OF RADIOACTIVE WASTES**

### **SUMMARY**

PrepCom III reached an impasse on the issue of radioactive waste. Developing countries (and some Nordics) called strongly for a move toward converting the IAEA Code of Practice into a legally binding instrument, and for a legally binding ban on the dumping of low level radioactive waste at sea. Others, led by the US, objected not only to these proposals but to the inclusion of this issue in any way in Agenda 21, saying that the issue is being dealt with in other fora and should not be duplicated in UNCED. No resolution was reached, and the entire issue has been postponed to PrepCom IV.

### **Documentation**

- |                                |   |   |
|--------------------------------|---|---|
| A/CONF.151/PC/WG.II/L.21/Rev.1 | - | Decision Document on all Wastes/Toxics issues               |
| Annex III to L.21/Rev.1        | - | Proposed new Agenda 21 programme area on radioactive wastes |

### **PREPCOM DISCUSSION**

The primary Canadian objectives for PrepCom III were:

- To support the International Atomic Energy Agency's (IAEA) Code of Practice on the International Movement of Radioactive Waste;
- To encourage the harmonization of procedures of the Basel Convention and the IAEA's International Code of Practice.

A brief general debate on this issue was held in the first two weeks of the PrepCom, following an oral presentation by a representative of the International Atomic Energy Association (IAEA). PrepCom II had invited the IAEA to make an informal report to PrepCom III on this issue, particularly regarding the implementation of the IAEA's Code of Practice on the International Transboundary Movement of Radioactive Waste. The IAEA representative noted, however, that not enough input from member states

is available as yet to assess the impact of the Code of Practice, and that a more useful report should be available at PrepCom IV.

Highlights of interventions:

- many developing countries (Barbados, Samoa, Malaysia, Uganda, Pakistan, Guinea) expressed strong concern about dumping radioactive waste, particularly at sea;
- some delegations called for a ban on transboundary movement of radioactive waste; African states referred to the Bamako Convention as necessary to keep radioactive waste out of their continent;
- some delegations (Malaysia) favoured giving legal status to the Code of Practice; Norway stated that the Code should be the basis of an international convention, a la Basel. Others, however, disagreed, citing the need for more experience with the Code before going the Convention route;
- several delegations stated that the radioactive waste issue should be an integral part of Agenda 21.

A small drafting group then met to consider a short paper drafted by the Secretariat identifying the safe and environmentally sound management of radioactive wastes as a programme area in Agenda 21. The group quickly became polarized, when it became apparent that the US would accept only the most innocuous of wording (preferring that the issue not be addressed at all in Agenda 21), and developing countries together with the Nordics insisting that the issue was a critical one for Agenda 21.

The most contentious proposal was over the issue of dumping low level radioactive wastes at sea; the draft wording called for governments to invite the London Dumping Convention to consider replacing the current voluntary moratorium by a legally binding ban. Alternative softer wording (governments encouraging the London Dumping Convention to expedite work to complete the studies to consider replacing the voluntary moratorium with a ban) was unacceptable to everyone -- not strong enough for some and too strong for the US, Japan and the EC countries. The Chair proposed that delegations consult with capitals over to see if a compromise could be reached; the US replied that it would no doubt be requesting the entire text to be square bracketed.

In informal consultations of the full Working Group, the text that had emerged from the drafting group took five minutes of discussion time: the entire text was simply retained in square brackets for consideration at PrepCom IV.

## OUTCOMES AND ASSESSMENT

PrepCom III resulted in a stalemate on the issue of Radioactive Waste. Developing countries, and some industrialized countries, are clearly unhappy about the lack of attention being accorded to this issue. While some of them may be prepared to acknowledge that waiting for the outcome of the studies underway in the London Dumping Convention is reasonable, what is unacceptable is to have no reference whatsoever to the issue of radioactive waste itself in Agenda 21.

This issue is likely to be debated more intensely at PrepCom IV, given that the IAEA is expected to have a more complete report available at that time. Unless positions soften and a will to compromise develops for the next PrepCom, it is difficult to see how resolution on this issue will be achieved.

PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Third session  
Geneva, 12 August-4 September 1991  
Working Group II  
Agenda item 4

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

Revised draft decision submitted by the Chairman

The Preparatory Committee,

1. Welcomes the reports of the Secretary-General of the Conference on 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 concerning the background documents (A/CONF.151/PC/74, A/CONF.151/PC/75, A/CONF.151/PC/76, A/CONF.151/PC/88) and the Options for Agenda 21 (A/CONF.151/PC/42/Add.8-10);

2. Requests the Secretary-General of the Conference to submit at its fourth session, the annex to this decision as contained in documents A/CONF.151/PC/WG.II/L.19 and Add.1-3, as revised, during the informal consultations at the third session;

3. Requests the Secretary-General of the Conference to submit to the Preparatory Committee at its fourth session for its consideration revised options for Agenda 21 indicating the origins of proposals, when they reflect the results of expert meetings, taking into account:

(a) The debate and the relevant decisions taken at this session including on the format of Agenda 21 and means of implementation as contained in document A/CONF.151/PC/L.49.

*including for prevention, minimisation + management of hazardous wastes*

(b) The results of the UNEP ad hoc meeting of government-designated experts to consider the draft elements for a possible international strategy and action programme, including technical guidelines for environmentally sound management of hazardous wastes, planned to be held before the end of 1991.

(c) The results of the ad hoc meeting of government-designated experts to be convened by UNEP in association with the IPCS which will consider proposals for an intergovernmental mechanism for risk assessment and management of chemicals and which is to be held in London by mid-December 1991.

PROGRAMME AREA

Promote the safe and environmentally sound management of radioactive wastes through international agreements.

Basis for action

In many parts of the world the amounts of radioactive wastes, including those from nuclear power units, medical centres, research institutes, industrial facilities, mining operations, etc. are growing, [particularly in industrialized countries], their safe and environmentally sound management, including disposal, is critical, given their characteristics.

Objective

To ensure that radioactive wastes is safely managed and disposed of, with a view to protect human health and the environment.

ActivitiesFurther development of international regulations

1. [To promote policies and practical measures to prevent and minimize generation of radioactive wastes.]
2. [To promote research on transmutation of highly radioactive wastes and the development of environmentally sound technologies in this area.]
3. Governments should strengthen their efforts to implement the Code of Practice for International Transboundary Movement of Radioactive Waste, and, under the auspices of IAEA, keep the question of [the control of] such movements under active review, [including the desirability of concluding a legally binding instrument,] or [and work towards a target date for a legally binding convention] [including protocols on liability, compensation and compulsory insurance]
4. [Governments should invite the London Dumping Convention to replace the current voluntary moratorium on disposal of low-level radioactive wastes at sea by a legally binding ban on such practice] or [Governments 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 taking into account the precautionary approach, with a view to take a well informed decision on this issue.]
5. [Governments and international organizations should not allow the disposal of high, intermediate and low level radioactive wastes into, under and next to the seabed.]
6. Governments should respect the aims of the Bamako Convention and other relevant regional conventions prohibiting the import of all hazardous wastes, including radioactive wastes.]





## OCEANS

### **SUMMARY**

Subjects covered in the complex oceans discussion included: the role of the Law of the Sea Convention (UNCLOS) as a main framework for addressing oceans issues; marine pollution (especially from land-based sources); conservation and management of marine living resources, including such issues as drifnet fishing and whaling; coastal zone management; regional development including capacity-building in developing countries; Antarctica; marine biodiversity; and institutional mechanisms (including observation systems for monitoring critical uncertainties and climate change).

Following intense negotiations in the first two weeks of PrepCom III and lengthy procedural debates in the last week, delegates decided to ask the UNCED Secretariat to prepare a compilation document based primarily on two draft proposals: The Chairman's text (L.18), representing a compilation of views under all the subject headings, and a submission by several delegation (L.24), which splits up the marine living resources section of L.18 into separate sections of high seas and national jurisdiction, respectively. The new compilation will identify which paragraphs come from the Secretariat's original document (PC/42/Add.6) and which are proposals by countries, either individually or in groups, given that much of the language in L.18 contains language which is fundamentally unacceptable to some countries (e.g. Malaysia's proposal that, contrary to the Antarctica Treaty, Antarctica should be considered a common heritage of mankind; or New Zealand's proposal for a ten-year moratorium on whaling). The general view is that much good work has been done on the oceans text and delegations are prepared to begin negotiations at PrepCom IV.

### **Documentation**

- |                          |   |   |
|--------------------------|---|---|
| A/CONF.151/PC/42/Add.6   | - | Options for Agenda 21: Report of the Secretary General  |
| A/CONF.151/PC/69         | - | Background Document   |
| A/CONF.151/PC/70         | - | Land-based Sources of Marine Pollution  |
| A/CONF.151/PC/71         | - | Global Ocean Observing System (GOOS)  |
| A/CONF.151/PC/72         | - | Environmental Assessment of the Gulf Crisis   |
| A/CONF.151/PC/WG.II/L.16 | - | Draft Proposals by 16 Countries on the Conservation and Management of Living Resources of the High Seas |
| A/CONF.151/PC/WG.II/L.18 | - | Draft Decision and Annex (Chairman's  |

A/CONF.151/PC/WG.II/ L.22/Add.1/Rev.1	-	Working Paper) Proposed by the Bureau Decision and Annex (Land-Based Sources of Marine Pollution
A/CONF.151/PC/WG.II/L.24	-	Proposals by Some Delegations on Management of High Seas Marine Living Resources

## PREPCOM DISCUSSION

The primary Canadian objectives were:

- to report on the outcome of the Halifax meeting on Land Based Sources of Marine Pollution (LBSMP) and ensure PrepCom III provided guidance for the next follow-up meeting to be hosted by UNEP later in 1991;
- to lobby delegates to support the Santiago/New York paper on the "Conservation and Management of Living Resources of the High Seas: Principles and Measures for an Effective Regime Based on the Law of the Sea Convention" and ensure its inclusion in the Agenda 21 oceans text and;
- to monitor discussions in other areas of interest, for example, Law of the Sea, coastal zone management, institutions, whaling and Antarctica.

Canada chaired the informal contact groups on marine pollution and marine living resources and wrote the pertinent sections of L.18. Canada also actively participated in discussions dealing with the Law of the Sea, coastal zone management, and institutions.

There were some 55 interventions by delegations, international organizations, and non-governmental organizations. Most of the comments focused on the following: the role of the Law of the Sea Convention as the main framework for addressing oceans issues, including management of high seas living resources and protection of the marine environment; land-based sources of marine pollution; conservation and management of high seas living resources, including such issues as driftnet fishing and whaling; coastal zone management; and strengthening regional programmes, including capacity-building in developing countries. There were also notable exchanges on Antarctica, marine biodiversity, and institutional mechanisms.

### Role of the UN Convention on the Law of the Sea (UNCLOS)

Most delegations emphasized that the UNCLOS is the main framework for dealing with protection and management of oceans and their resources. The Netherlands, speaking on behalf of the EC, stated that proposals for action on oceans should not

jeopardize or conflict with the provisions of the Convention. Many delegations, particularly from developing countries and some NGOs, such as the International Ocean Institute (IOI) and the Advisory Committee on the Protection of the Sea (ACOPS), stressed that the UNCLOS should be ratified as soon as possible; some added that, indeed, this should be done before the 1992 UNCED conference. The US and the UK expressed hope that there would be progress in resolving the outstanding issues in one section of the Convention; the US further noted that the Convention has resolved many issues on juridical obligations and balances of states and interests in oceans.

Canada, Chile, Gambia, and New Zealand stated that there is a need for new approaches to ocean management which build on UNCLOS and existing regional sea agreements. These delegations stated that they intended to table a draft proposal by experts from coastal states on principles and measures for an effective regime for conservation and management of living resources of the high seas, based on the UNCLOS. The Netherlands (EC) stated that management of high seas fisheries should continue to be undertaken on a regional basis with a view to strengthening such arrangements, a view shared by Japan. The UK added that such regional organizations should include coastal and distant fishing states.

#### Land-based Sources of Marine Pollution (LBSMP)

Numerous delegations praised the initiative by Canada to host the May, 1991 Halifax meeting on LBSMP. Responding to Canada's report of the meeting's results, delegations stated that the next meeting of experts, to be hosted by UNEP by the end of 1991, should build on the results of Halifax and recommendations by PrepCom III of UNCED (pursuant to discussions about options for Agenda 21). Non-governmental organizations (NGOs), such as Greenpeace, suggested that UNCED should initiate negotiations leading to a global convention on LBSMP. Although this proposal enjoyed tacit support by the Nordic states and such NGOs as ACOPS, they and most of the major industrialized countries (EC, US, Japan), stated that there is no need for such a legal instrument, but that the LBSMP experts' meetings could elaborate a comprehensive strategy or plan of action for dealing with LBSMP and integrated coastal zone management (including the protection and conservation of living marine resources), bearing in mind that coastal zones vary from region to region. Such a strategy could build on UNEP's 1985 Montreal Guidelines and strengthen existing regional seas' programmes.

The delegate from Sweden commented that the term, land-based sources of marine pollution, did not really take into account the degradation of coastal ecosystems (coral reefs, mangrove swamps, etc.) by human activities on shore. He suggested that the broader term, "degradation by land-based activities," takes into account degradation resulting from both effluent and socio-economic activity.

A number of delegates noted that the key to a successful strategy for LBSMP lay in strengthening local, national, and regional programmes for addressing this serious problem. Several developing countries, including South Pacific States, Algeria, Barbados, Brazil, Chile, Kenya, Malaysia, and Mexico, and such NGOs as Four Directions (representing indigenous peoples) and the IOI, stressed the need to strengthen countries' capacities to mitigate and prevent LBSMP, through better information and data exchange and training, as well as enhanced international cooperation in this field; otherwise developing countries would not be able to meet the target dates recommended in PC/42/Add.6.

#### Conservation and Management of High Seas Living Resources (including Whaling and Driftnet Fishing)

There were a number of interventions on this subject, which overlapped to some extent with comments on UNCLOS. Some delegations which represent distant fishing interests (e.g. EC and Japan), stressed that nations have a responsibility to develop and manage high seas living marine resources, based on principles agreed to by the international community (and contained in the UNCLOS); harvesting such resources should be undertaken on the basis of scientific methods for determining stocks and catches of directed and non-directed species. As well, countries should cooperate to develop responsible enforcement programmes and activities. This in itself was generally accepted and understood by all delegations addressing this issue, but a number of delegations raised other issues, which led to interesting exchanges on the protection and conservation of living marine resources.

The Four Directions Council and Fishworkers, a group representing artisanal fisheries in Africa, stressed the special rights of indigenous peoples and local communities to living marine resources in coastal areas and on the high seas and the need for the international community and agreements to recognize these rights. Both representatives also called for international cooperation and assistance to promote such environmentally sound and sustainable methods to harvest living marine resources.

New Zealand's Commissioner to the International Whaling Commission (IWC) proposed that PC/42/Add.6 incorporate the following principles as options for Agenda 21:

- Affirm the validity of the 1972 Stockholm Conference recommendation that there should be a ten-year moratorium on commercial whaling and call for its full implementation (aboriginal and subsistence whaling would be exempted);
- Welcome the IWC report on small cetaceans and urge the IWC to continue this work, and governments specifically concerned to act

promptly on the IWC's Scientific Committee on this issue; and

- Call for a UN conference to be convened by 1995 to review the international machinery for the protection of all cetaceans, and to consider the most effective means for providing cetacean research, conservation and management into the 21st century.

The New Zealand intervention brought some strong responses from Denmark, Iceland, and Norway. They pointed out that the IWC already has a whaling moratorium in effect, which is subject to review and which should not be pre-judged; that the IWC's statutes clearly focus only on large cetaceans and that there remains in the IWC a vigorous debate as to whether the statutes should be broadened; and that the IWC is the international competent body dealing with whales, thus negating any need for a UN conference on whaling. Finally, they stated that the UNCLOS, which recognizes that marine resources should not be overexploited, also states that they should be used for the benefit of mankind. Therefore, although they support the prohibition of whaling of endangered stocks, they believe coastal and indigenous communities should be able to take those stocks which are healthy (Japan noted that there was also a need to continue some whaling of such stocks for scientific purposes). They also emphasized that efforts to protect whales should be focused on protecting and enhancing their habitats, rather than banning whaling, as some whale populations are being depleted more as a result of environmental degradation than by harvesting.

Australia, New Zealand, and some South Pacific states raised the issue of driftnet fishing, which brought a direct response from Japan, and more oblique comments from Norway and the US. All delegations addressing this issue reaffirmed the provisions of General Assembly resolution 44/225 on large-scale pelagic driftnet fishing. Japan reported that it had been cooperating with Canada and the US by allowing observers from those countries to board Japanese commercial driftnet vessels and by collecting and exchanging scientific data on directed and non-directed species. Noting the "productive discussions" held in Sydney, B.C. in June, 1991, involving experts from the International North Pacific Fisheries Commission (INPFC) and observers from Korea, Australia, New Zealand, South Pacific, and the UN, Japan hoped that the next INPFC meeting (to be held November, 1991 in Tokyo) would enable countries to better understand the impact of driftnet fishing on marine living resources and to develop more effective conservation and management measures.

The US emphasized the need to avoid fishing techniques or practices which are wasteful; Norway commented that instead of focusing on particular fishing techniques, efforts should be directed towards ensuring sustainable catch levels, based on an "ecosystem management" approach. China called for countries to implement "eco-fishing" techniques, a proposal supported by Australia.

### Integrated Coastal Zone Management

Delegations from developed and developing countries noted that, in addition to strengthening regional seas programmes, consideration must be given to elaborating principles, guidelines, and activities to promote integrated coastal zone management. This encompasses effective measures to deal with land- and sea-based pollution (Kenya and Malaysia made pointed references to dealing with the problem of sewage in coastal zones), as well as promoting environmentally sound fisheries management, and protecting and enhancing local marine eco-systems. Caribbean, South Pacific (including the South Pacific Regional Environmental Programme), African countries (Senegal, Kenya), and Malaysia all noted that the concept of integrated coastal zone management was sensible, but could only work in developing countries provided they received the assistance necessary to develop and implement coastal management programmes. Four Directions asserted that coastal zone management was essential to ensure indigenous communities could attain food security and continue traditional marine activities.

Venezuela and Malaysia cautioned that it had to be understood that coastal zone management did not imply external interference in countries' sovereign rights to their exclusive economic zones (EEZs) and the resources contained in them, but rather that such management programmes would be the means by which countries could identify environmental and developmental problems and, through international cooperation, resolve them. Malaysia further explained that it had reached an understanding with its neighbour, Thailand, to cooperate in protecting and enhancing the marine resources and environment shared by the two states.

### Capacity-Building in Developing Countries

Several developing countries stated that PC/42/Add.6 needed clearer references to ways in which countries could cooperate to build capacity in developing countries. Chile stressed the need for better information and data exchange, education and training. Kenya and Tanzania stated that developing countries needed funding and technology; China and Barbados suggested that the revised PC/42/Add.6 include the cost of implementing its proposals and ways in which funding can be made available to assist developing countries. Brazil commented that the target dates for implementing the various activities called for in PC/42/Add.6 should take into account the difficulties developing countries have in meeting such objectives unless they receive assistance.

Algeria asserted that PC/42/Add.6 did not seem to adhere to the spirit of UN General Assembly resolution 44/228. The document seemed to imply that all countries are equal as far as meeting environmental obligations; it did not specify the particular needs of developing countries and the greater obligations of developed countries to

promote sustainable development. For example, coastal zone problems in the southern Mediterranean were not the same as those in the northern Mediterranean and though cooperation among the southern shore states was important, it was also important that there be renewed cooperation from the northern shore states. In Algeria's opinion, PC/42/Add.6 did not really address the problem of unsustainable patterns of consumption which have an adverse effect on the marine environment, or the financial and technological means by which developing countries could build their capacity to deal with such problems. In short, the document read more like an environmental prescriptive than a means for promoting sustainable development.

Representatives of the UNCED Secretariat disagreed with some of Algeria's points, stating that the document essentially focuses on ways in which countries can utilize marine and coastal areas without destroying their environment. Furthermore, they argued that the sections of the document dealing with strengthening international and regional cooperation and with capacity-building, as well as other sections throughout the document, proposed ways and means for improving management of coasts and seas. China, Colombia, and Philippines suggested that more references were required on the "developmental aspects of marine management," a point which the Secretariat undertook to take into consideration in subsequent drafts of the document.

### Antarctica

Referring to decision 1/20 of the first UNCED PrepCom, Malaysia stated that the Secretariat's report on the environment of polar regions is "very brief and too general and has not got the same attention as in other areas covered by the report" (sic). The delegate reiterated Malaysia's position that the UN, not just the Antarctica Treaty Consultative Parties (ATCP), should play a role in deliberating on ways and means to protect the fragile eco-system of the Antarctic. The delegate called for UNCED to endorse the establishment of a "nature reserve or world park" including a sanctuary for whales and dolphins on the continent, as well as a scientific research station which could monitor the eco-system and provide early warning data on climate change and environmental accidents. Malaysia also called for a moratorium on mining in Antarctica.

Germany, speaking on behalf of the ATCP, stated that the Parties had readily provided to Malaysia all relevant information on their activities in Antarctica, as well as environmental policies. The representative announced that a comprehensive environmental protocol to the Treaty has been agreed upon in June, 1991 and will be signed in Madrid on October 4, 1991. As for the Malaysian proposals, Germany stated that the Treaty is the basis for managing activities in the Antarctic; that resolution 44/228 contains no specific reference to the Antarctic as a priority area; and that UNCED already has a hardly manageable workload. Finally, Germany called for the deletion (in paragraphs 18, 20, and 34) in PC/42/Add.6 of any



references to the Antarctic.

Malaysia replied that though it had a special interest in Antarctica, the fact is that PrepCom I had asked the Secretariat to examine environmental problems in the polar regions and thus they were obligated to provide a comprehensive report on this important issue. The delegate stated that UNCED is a Conference about global environmental problems and thus should be able to address any areas, such as the polar regions, which are an intrinsic part of the global eco-system – Treaty or no Treaty.

### Marine Biodiversity

This issue was addressed by a number of delegations, and if it does not merit a separate section in the revised PC/42/Add.6, it will likely form a key part of the section on integrated coastal zone management and revisions to PC/42/Add.4 on biological diversity.

In a notable intervention, Australia proposed that a number of points on "tropical coastal zone management" should be incorporated in Agenda 21. The delegate listed a number of phenomena which threaten to degrade tropical marine ecosystems, including changes in temperature, climate, salinity, water circulation, and ultraviolet radiation. As well, he noted that human activities, in addition to causing direct damage to ecosystems (destroying coral reefs and mangrove swamps), can cause associated problems of sedimentation and phytoplankton "blooms." In addition to strengthening international agreements and strategies to deal with marine degradation caused by land- and sea-based activities, the delegate noted that further efforts were required. In this respect, he raised an initiative by the World Conservation Union (IUCN) (and endorsed by Greenpeace) to create a global representative system of marine protected areas. The aims of such a programme would be:

- to divide each marine realm into its major constituent biogeographical zones;
- to identify gaps in the representation in marine protected areas (MPAs) of those zones; and
- to propose possible sites for the establishment of MPAs to fill those gaps.

This proposal will be incorporated into a message from the IUCN Congress in Caracas in February 1992 for transmission and hopefully adoption by UNCED.

A number of countries, such as China, Colombia, Senegal, Solomon Island, and Sweden, commented that special attention had to be paid to tropical marine ecosystems. One way this could be accomplished was through regional seas programmes, which a number of delegations, such as Finland and Nigeria, stated were essentially designed to focus on the specific requirements of regional marine ecosystems. Malaysia and Chile noted further that sometimes ecosystems were a

subset of a regional seas programme and that bilateral (or smaller multilateral) arrangements were necessary to deal with specific problems, such as sewage effluent.

### Institutions

Most countries which addressed this issue did not support all the recommendations contained in paragraphs 54 to 62 of PC/42/Add.6. Countries generally recommended the avoidance of new institutions or regulatory super structures. Canada, Chile, Colombia, the EC (and the UK in a separate intervention), Japan, and Sweden expressed reservations for most, if not all of the proposals for new institutions, stating that global mechanisms to deal with oceans issues already existed or provisions for them were contained in the UNCLOS. Canada, Japan, and the UK further noted that institutional proposals had to take into account deliberations in Working Group III on broad requirements for promoting sustainable development. Several African countries specifically called for countries to ratify the UNCLOS so that appropriate permanent institutions could be established as soon as possible.

Colombia, Mexico, and Venezuela stated that the rational use of the ocean's resources should be based on a global framework which fully respects established international agreements among states, in accordance with their international rights and obligations; thus, environmental protection should not be a basis for unilateral trade measures, but rather trade matters should be dealt with in the context of the GATT.

Several countries (Finland, Gambia, Kenya, and Sweden) spoke in favour of strengthening regional programmes; Sweden stated that UNEP's mandate clearly included all aspects of marine environmental protection.

Norway stated that it considered the proposals on institutions "interesting". Benin said it supported the establishment of a high level intergovernmental body which would meet periodically and bring together competent UN bodies dealing with oceans issues, environment, and development.

Among NGOs, Greenpeace and the IOI called for the establishment of a high level global oceans forum, under the auspices of the UN General Assembly, which would plan and coordinate oceans related activities among global and regional intergovernmental bodies. The IOI suggested that the forum could either be a permanent conference, periodic special sessions of the GA, or, if ratified, a periodic meeting of the States Parties to the LOS convention. The IOI also recommended that there should be periodic meetings of regional oceans assemblies. ACOPS stated that States should cooperate in the development of appropriate arrangements at the global and regional levels based on the UNCLOS, Montreal Guidelines, UNEP Regional Seas Programme, and the Paris Convention. The Consortium of Action to Protect the Environment (CAPE) advocated establishing a global mechanism to coordinate pollution prevention.

## OUTCOMES AND ASSESSMENT

After the formal debate concluded, the Chairman decided to convene seven informal contact groups (marine living resources, marine pollution, integrated coastal zone management, critical uncertainties and climate change, institutions, Antarctica, and whaling) to rewrite PC/42/Add.6 into a document which delegations could then use as basis for negotiating an Agenda 21 on oceans. Canada chaired the groups on marine living resources and marine pollution and drafted most of the language on these issues contained in the main oceans paper, L.18.

There were intense negotiations in the first two weeks to

- a) develop a framework for Agenda 21 on oceans; and
- b) negotiate as much as possible substantive issues for inclusion in the draft oceans text. Delegations had to await, however, the final outcome of Plenary deliberations on an overall framework for Agenda 21 and sort out some procedural problems before deciding to request that the Secretariat prepare a compilation for PrepCom IV, based on the two negotiated draft texts (L.18 and L.24), as well as submissions by delegations.

L.18 alone is a mammoth text (38 pages, 145 paragraphs with numerous square brackets), but is considered to be a good basis for an innovative agenda on oceans.

In addition to chairing the informal contact groups on marine living resources and marine pollution, Canada also participated in the groups dealing with integrated coastal zone management (redrafted by Colombia, Mexico, and Venezuela), institutions (redrafted by the Netherlands), and critical uncertainties and climate change (redrafted by Barbados and the US). Canada monitored, but did not participate in, the highly polarized meetings on Antarctica and whaling.

### Marine Living Resources

The section on marine living resources is slightly different from other Agenda 21 papers (but similar to the forests paper) in that it incorporates both concrete recommendations (regulations, sustainable fisheries methods, better information collection and sharing, etc.) and fundamental principles for conservation and management (based on the Santiago/New York paper (L.16), which is supported by some 16 countries). Although the text at present does not enjoy support from the EC and Japan, numerous delegations have praised the marine living resources section of L.18 for its "forward-looking strategy" to deal with specific problems which have arisen in the last decade and to implement effectively the provisions of the UNCLOS.

The paper proposed by several Latin American states and others (L.24) makes no

substantive changes to L.18's section on marine living resources, but rather splits the issue into two sections (high seas and national jurisdiction). The drafters believe that there are two different legal approaches to dealing with fisheries and they wish to see this reflected in Agenda 21. The EC adamantly opposes this split, arguing that fisheries are "holistic" and management practices and regulations should be consistent within and outside EEZs (a view which bolsters their case for exploiting straddling stocks).

It is recommended that Canada and other like-minded countries should consider working on those delegations most resistant to the "new" approach proposed in L.18 to try and come as close as we can to a new consensus on this issues.

### LBSMP

The section on marine pollution also received much praise for its clarity and thorough way in which it takes into account environmental and developmental aspects of the problem. In addition, PrepCom III adopted guidelines (originally drafted by Canada) for the upcoming meeting, hosted by UNEP, on LBSMP. The Chairman of WG II was initially reluctant but strong lobbying by Canada with the Chairman and with the G-77 delegations most reluctant to consider "such a substantive issue at the last minute" -- and a firm reminder that the recent UNEP Governing Council had specifically asked UNCED to provide such guidelines -- eventually brought a successful result on the penultimate day of the PrepCom (this is contained in the Annex of L.22/Add.1/Rev.1).

### Integrated Coastal Zone Management

The section on coastal zone management reflects disagreement by delegations as to what it should or should not include in its terms of reference. Although virtually all delegations saw merit in considering ways and means to protect special ecosystems (coral reefs, mangrove swamps, specific biodiversity sites), some countries, such as Argentina, Chile, Colombia, Mexico, and Venezuela, were firm that emphasis should be on scientific and technical cooperation and strengthening regulations to protect such ecosystems. External management of resources in sovereign territories was not open for discussion, as far as they were concerned. This brought a pointed comment from the US that a situation could occur where countries have to "come to some tough agreements, where necessary" to protect vital endangered species which migrate from one EEZ to another (sea turtles) or to minimize activities which endanger an ecosystem in a neighbouring EEZ.

### Institutions

The Secretariat proposals on new institutions were considered too ambitious by most delegations and ran contrary to general agreement at the PrepCom that there should

be no new institutions. In its redrafting of the institutions section of the oceans paper, the Netherlands thus deleted specific proposals about establishing a new oceans forum and convening a world oceans conference. The representative from the UN Office of Ocean Affairs and Law of the Sea (OALOS) did make the point that, if the UNCLOS is not ratified, countries would have to decide whether the item should continue to be on the UNGA agenda (Sixth Committee) or dealt with in another, possibly new, forum. The representative added that the same would, of course, apply if the UNCLOS were ratified, but countries would also have to consider whether parties should form their own deliberating/negotiating body or keep the LOS agenda item solidly entrenched in the UN system, given the truly global nature of oceans issues. Finally, some delegations pointed out that different aspects of oceans are considered in a number of bodies (UNGA, UNEP, UNESCO/IOC, IMO) and that perhaps there may be a requirement either to consider all oceans issues annually in one body or at least ensure that key problems, such as marine pollution, are addressed in an appropriate forum.

It is recommended that it would be useful to consider the original institutional proposals contained in PC/42/Add.6, bearing in mind the issues raised in other sectors (e.f. forests, freshwater) in the Plenary and Working Group III, with a view to making a coherent presentation of institutional reform/revitalization proposals coming out of the UNCED process. The matrix developed by CIDA could be a useful tool for further discussions in this regard.

#### Critical Uncertainties and Climate Change

This issue was a higher priority for small island states, which are likely to flesh it out some more at PrepCom IV. The emphasis would be on linkages between climate change and sea level rise. The US highlighted the need to support the establishment of UNESCO/IOC's Global Ocean Observation System (GOOS).

#### Whaling and Antarctica

Discussions on marine mammals (whales) and polar regions (Antarctica) proved to be extremely divisive and almost unravelled the tremendous work already done on L.18. On the former issue, Japan and the Nordics (Denmark, Iceland, and Norway) insisted they could not accept even bracketed reference's to New Zealand's proposal for a ten-year moratorium on whaling. They eventually backed down, but submitted their own language on the need to promote the sustainable use of all marine mammals and to counteract pollution, which is the real culprit (not whaling) in diminishing stocks.

On Antarctica, the Treaty Parties (ATCP) met several times and decided that the Malaysian proposals to establish, inter alia, a world park and a UN sponsored science station in Antarctica and to negotiate a comprehensive convention on the conservation

and protection of the continent and its resources, were absolutely unacceptable.

### Conclusion

Despite numerous arguments about what should or should not be contained in the draft oceans text (e.g. the fact that the EC and Japan fundamentally could not accept the proposal in L.24 to split marine living resources into the high seas and EEZ jurisdictions), delegations recognized that L.18 contained many negotiated sections which they thought were a good basis for consensus.

Following difficult negotiations chaired by Canada and then concluded by Chairman Shaib, the UNCED Secretariat has been asked to re-organize (not consolidate, edit, or rewrite, as Shaib had originally proposed) L.18 and L.24 and other submissions from delegations into a "compilation of proposals," identifying them from either the original suggestions contained in PC/42/Add.6 or from delegations. At the insistence of, respectively the ATCP and the EC, there is no reference to L.18 and L.24, but rather to their titles ("Chairman's Draft Proposals of 23 August 1991 and "Proposals by Some Delegations of 27 August 1991). It is recommended that Canada write a letter as soon as possible to the Secretariat identifying those paragraphs with which we are associated and changes we would like to see made to the current text(s).

Oceans (and all other sectoral issues) will follow the agreed Agenda 21 framework first developed in the informal oceans contact groups and later elaborated by the Plenary. This is: a) Basis for Action; b) Objectives; c) Activities: i) Management-Related, ii) Data and Information, iii) International and Regional Cooperation and Coordination; d) Means of Implementation: i) Financing and Cost Evaluation, ii) Scientific and Technological Means, iii) Human Resource Development, iv) Capacity Building of Developing Countries for Preventive and Corrective Action in the Field of Environmental Protection and Promotion of Development.

Programme areas to be included in the oceans text are (square brackets indicate current disagreements): a) Integrated Management and Sustainable Development of Coastal Areas, EEZs [and Marine Ecosystems]; b) Marine Environmental Protection; c) Sustainable Utilization and Conservation of Marine Living Resources: i) High Seas, ii) National Jurisdiction; or [c) Sustainable Utilization of Marine Living Resources of the High Seas; and d) Sustainable Use of Living Marine Resources Under National Jurisdiction]; d/e) Addressing Critical Uncertainties, the Management of the Marine Environment, and Climate Change; and e/f) Strengthening International, including Regional Cooperation and Coordination.

AS DELIVERED  
IN GENEVA  
AT PREP COM III

STATEMENT BY JOHN P. BELL, HEAD OF THE CANADIAN DELEGATION

THIRD PREPARATORY COMMITTEE OF THE UNCED

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 MARINE RESOURCES

AUGUST 1991, GENEVA

Mr. Chairman,

First I would like to thank the UNCED Secretariat for the excellent documents it has prepared on the sustainable development and management of oceans and seas (PC/68, 69, 70, 71, 72 and 42/Add.6) for consideration by this PrepCom. In particular I would like to flag the documents on institutions and legal instruments, and on options for Agenda 21, which will help focus our discussions and identify concrete steps for endorsement by UNCED. These documents draw the important link between marine environmental quality and economic development opportunities, particularly in coastal areas which rely heavily on fishing, tourism and recreation, and other marine-based activities.

The health of our oceans and the effectiveness of our current efforts clearly call for a new approach to ocean management which builds on the United Nations Law of the Sea Convention and existing regional sea agreements. Particular attention should be directed to land-based sources of marine pollution, coastal zone management and the conservation and protection of living marine resources. This requires that we consider ways to improve the linkages and cooperation among international institutions active in this area. It also requires that we further identify and clarify objectives, goals, and activities worthy of further consideration by all levels of government, and along the lines of the UNCED document PC 42/Add.6 dealing with Ocean Options for Agenda 21. In this connection, coastal zone management activities have a direct influence on other issues, such as land-based sources of marine pollution.

As far as the role and actions of international organizations and institutions, Canada supports the use and strengthening of existing organizations and institutions, rather than the establishment of new ones. Canada urges the development of practical measures based on existing principles of the Law of the Sea Convention. Concrete progress must and can be achieved.

For example, Canada strongly believes that we cannot afford a "ten-year timeframe" to deal with the current problems affecting the living marine resources, as suggested in paragraph 19 of PC/42/Add.6.

Since we last met there have been several important international conferences and meetings which have a bearing on our work here today. Of particular note are the Halifax Intergovernmental Meeting on Land-based Sources of Marine Pollution in May and the July ACOPS International Conference on Land-based Sources of Marine Pollution in Brussels. Ocean environmental issues were also discussed at the UNEP Governing Council in May and at the G-7 Economic Summit in London in July.

As well a meeting of legal experts was convened recently in New York by the UN office for Ocean Affairs and Law of the Sea to discuss problems affecting the conservation of living marine resources and to develop effective management guidelines.

Many of us attended the Halifax meeting which was called for by the First PrepCom. As requested by the Second PrepCom, I am tabling the Halifax results here today in the form of the Meeting Statement, Conclusions and Recommendations, and Annexes on the four Working Group discussions. I would like to briefly outline its main conclusions and recommendations.

- First, land-based sources of marine pollution should be seen within the context of a broad, overall concern for the health of our oceans and seas.
- Second, we must adopt a comprehensive, sequential and coordinated approach based on action at the global, national, regional and local levels.
- Third, in developing ocean management strategies, there is a continuing need for scientific information, but deficiencies in scientific understanding should not limit our actions.
- Fourth, States should adopt, individually or jointly, and in accordance with their capabilities, precautionary measures to prevent, reduce and control pollution from land-based sources.
- Fifth, point-source pollution should be reduced and controlled at source rather than at the point of environmental release.
- Sixth, the reduction and control of non-point source pollutants requires broad changes in sewage and waste management, and practices in agriculture, mining, construction and transportation. Although not mentioned in



the Halifax results, I would respectfully suggest forestry be added to this list.

- Finally, a coherent strategy, whether on a national, regional or global scale must be based on a commonly accepted set of principles, contain a set of goals to be achieved and prescribe the essential elements of environmental management at the national level.

Mr. Chairman,

These are important results and should be incorporated into all aspects of the UNCED work on oceans.

In addition, Halifax experts called on UNCED to recognize the urgent nature of the problem of land-based sources of marine pollution, and to confirm the principles necessary for establishing a global strategy for addressing land-based sources. They agreed to reconvene, preferably before the end of this year, to develop a declaration, a strategy and action plan for adoption at UNCED, with the results of the follow-on meeting to be presented to PrepCom IV and incorporated as an important chapter in Agenda 21. They recommended that Canada be requested to continue as lead country in this process, in cooperation with the UNCED Secretariat.

At the May UNEP Governing Council Meeting in Nairobi, Canada presented the results of the Halifax meeting. While the Halifax Meeting recommended that Canada continue to be the lead country on land-based sources of marine pollution (LBSMP) the UNEP Governing Council (May 20-31) offered to host the next Intergovernmental Meeting of Experts, due in large part to UNEP's Regional Seas Programs. Canada and others supported this offer on the understanding that it would continue the work begun in Halifax and would be based on policy guidance provided by the Third Preparatory Committee of UNCED. Specifically, the results of the follow-on meeting of experts should be presented to PrepCom IV for consideration and further elaboration in that forum. Canada supports the lead role of UNCED in articulating a comprehensive approach to ocean environmental issues, including land-based sources of marine pollution. Canada will continue to take an active role in the development of such a comprehensive approach.

UNEP Governing Council decision 16/26A authorizes the Executive Director to convene, subject to the availability of resources, such a meeting and to initiate preparations without delay. Should UNEP have insufficient funds to host the next Intergovernmental Meeting of Experts on Land-based Sources of Marine Pollution, Prep Com III should consider contingency plans to continue this needed work. This could include requesting the UNCED Secretariat in collaboration with its working party on

Oceans to prepare a draft declaration, strategy and action plan for consideration at Prep Com IV.

The ACOPS Conference on Land-based Marine Pollution (July 3-5) made particular reference to the need for progress within UNCED. This would include the transfer of technology to developing countries and the integration of economic and financial measures in the legal instruments selected to address the problem. While some delegates focused on regional approaches, others emphasized the need to integrate them into a global framework of objectives and priorities. The concluding statement of the conference emphasizes the link between poverty and marine pollution (hence the need for transfers of financial resources and technology); the need for action on land-based sources, at the global, regional and national levels; and the importance of coastal zone management.

At the July Economic Summit in London, G-7 Leaders discussed ocean environmental issues including the conservation and protection of living marine resources. Prime Minister Mulroney noted the importance of oceans to Canada's economy and environment, and underlined the need for a comprehensive and global approach covering, inter alia, land-based sources of marine pollution, coastal zone management, and the conservation and protection of living marine resources. In the final communique, based on our Prime Minister's intervention, Leaders stated that they "seek to promote, in the context of UNCED, a comprehensive approach to oceans, including regional seas. The environmental and economic importance of oceans and seas means that they must be protected and sustainably managed." They also stated that "living marine resources are threatened by over-fishing and other harmful practices and should be protected by the implementation of measures in accordance with international law. We urge control of marine pollution and compliance with the regimes established by regional fisheries organisations through effective monitoring and enforcement measures."

The issue in particular of fishing on the high seas of stocks that straddle the 200-mile-limit is of fundamental importance to Canada. At the recent meeting in New York of legal experts on high seas fisheries, the necessity to conserve these resources and to cooperate within more effective regional fisheries organizations was recognized. Suggested guidelines were discussed which identify what the responsibilities of fisheries organizations should be. At the meeting a draft proposal by experts from Canada and seven other countries was tabled for further consideration. It outlines specific principles and measures for an effective regime for conservation and management of living resources of the high seas based on the Law of the Sea Convention.

In this regard, key elements include:

- the duty of high seas fishing countries to adopt and enforce conservation measures, to cooperate and to support the work of regional conservation and management authorities established to protect living marine resources in areas where they fish.
- for members of regional organizations, quotas and other rules must be effectively enforced.
- non-members of regional organizations must respect the conservation and management decisions of those organizations.
- high seas fishing must not have an adverse impact on the resources under the jurisdiction of coastal states.
- the management regime applied to the high seas portion of a straddling stock must be consistent with the management regime applied by the coastal state in its adjacent zone.

Mr. Chairman,

I would like to turn now to the future to sketch a picture of where we envisage international discussions on oceans going from here, and drawing implications for the work of UNCED.

Canada strongly believes that ocean environmental issues need to be addressed in a comprehensive and integrated manner. This is the approach suggested in UNCED document PC/42/Add.6 on Ocean Options for Agenda 21 and we fully support it. Part of this approach could be the development of a comprehensive set of principles on all aspects of oceans, along the lines of the contribution made by the U.S. delegation to UNCED Working Group II discussions. Another aspect would be the development of global strategies and action plans on key issues, as was proposed at the Halifax meeting for land-based sources of marine pollution.

Action needs to be taken on ocean environmental issues at all levels internationally: global, regional, national and local. While we support the need for cooperative action at the regional level, we must not lose sight of the fact that the oceans are part of the global commons. Many problems considered to be local in nature, such as sewage treatment and disposal, are in fact present on a global scale. Moreover, national decisions and practices ultimately affect marine environmental quality far beyond national coastal areas and exclusive economic zones. A prime example of this is marine environmental contamination in the Arctic and its impact on Inuit and other natives.

Special attention needs to be paid, on an urgent basis, to three key issues: land-based sources of marine pollution; coastal zone management; and conservation and protection of

living marine resources. In doing so, we envisage the development of strategies, action plans or frameworks which build on existing guidelines and agreements at the regional and global levels. These would include strengthening regional seas programs and agreements. Most importantly, we must develop measures which give full effect to the principles of the Law of the Sea Convention.

We are not out to re-invent the wheel, but rather to ensure that there are four wheels, working together, to make the necessary progress. We must also ensure that the destination is clear, through the articulation of specific objectives and timeframes. It is in the area of concrete targets and timetables where existing guidelines and agreements are noticeably lacking and must be taken further.

For UNCED, this points to working together to develop a global strategy and action plan for integrated oceans management. The results of the Halifax meeting on land-based sources of marine pollution would be an important component. Progress in articulating an integrated approach to coastal zone management is another. The conservation and protection of living marine resources is a third key area.

We have also been considering what the follow-up mechanism for Agenda 21 goals and objectives will be. At UNCED we could consider follow-on work through a mechanism such as a global oceans conference.

To conclude, it should be our objective at this PrepCom to define the linkages among ocean issues, to clarify their relationships to economic development objectives, to consider ways to improve the linkages and cooperation among international institutions active in this area, and identify objectives and goals worthy of further consideration, along the lines of the document prepared by the Secretariat. This could lead, at PrepCom IV, to the consideration of a comprehensive set of principles on all aspects of oceans and specific recommendations for action (an "Agenda 21" for oceans). At UNCED, we could consider adopting a declaration, global strategy and action plan for integrated oceans management.

Thank you.





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PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT  
Third Session  
Geneva, 12 August-4 September 1991  
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 Argentina, Barbados, Canada, Chile,  
Guinea, Guinea-Bissau, Iceland, Kiribati, New Zealand,  
Peru, Samoa, Solomon Islands, and Vanuatu

+ Cape Verde  
+ Fiji  
+ Senegal

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 (art. 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.

#### MEASURES

1. State must effectively monitor and control fishing activities of their national, 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.
  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.
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Agenda item 2

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

Draft decision proposed by the Bureau

A. Options for Agenda 21

The Preparatory Committee,

1. Welcomes the reports of the Secretary-General of the Conference on 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 (A/CONF.151/PC/69) and the Options for Agenda 21 on Oceans (A/CONF.151/PC/42/Add.6). Requests the Secretary-General of the Conference to consolidate and integrate related programme areas and rationalize their presentation for consideration at its fourth substantive session. The Committee requests the Secretary-General of the Conference to take into consideration inter alia all relevant paragraphs of General Assembly resolution 44/228, the relevant resolutions taken at the first and second substantive sessions and the decisions taken at the present substantive session in the preparation of a draft Agenda 21 section on Oceans:

(a) The need to include the requests made hereunder into the Options for Agenda 21 on Oceans as amended at the third substantive session of the Preparatory Committee and annexed to this decision;

(b) To further develop the five programme areas for oceans, as given in the annex in relation to Means of Implementation/Resource Requirements: Human Resource Development, Scientific and Technological Infrastructure Development, and Costing and Financing and the role of different international organisations in implementation, incorporating the suggestions and comments from delegations.

2. As concerns the intergovernmental meeting of experts on land-based sources of pollution to be convened by UNEP in coordination with the UNCED secretariat, the Preparatory Committee invites the Executive Director of the United Nations Environmental Programme to report the results of this meeting to the Secretary-General of UNCED on time to be presented at its fourth substantive session.

Annex

Chairmen's Working Paper

(Revised version of document A/CONF.151/PC/42/Add.6)

AGENDA 21

[GENERAL OBJECTIVES]

[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. It should be viewed as a positive asset presenting opportunities for sustainable development. Management of its environmental quality and ecological integrity is a prerequisite for ensuring the sustainable use and development of its resources.

[2. Principles of [The United Nations Convention on the Law of the Sea (UNCLOS) provides [the international framework within which][basis] to pursue the protection and sustainable development of the marine environment. [UNCLOS] contains generally accepted rights and obligations of States with respect to the marine environment. Implementation of those rights and obligations constitutes the objective of this part of Agenda 21 dealing with the oceans.]

[2 The Law of the Sea Convention has introduced new global legal regime, although it lacks the necessary ratifications to enter into force, provides a solid legislative base to govern many international relationships and for ocean management. However, at least two levels need to be harmonized in the management of oceans and coastal areas. The first level is the coastal areas and Exclusive Economic Zones (EEZs), where Governments have certain rights and responsibilities within national jurisdiction. The second level is the high seas, which require different cooperative arrangements at the global, regional and national levels. Legal and economically focused management regimes must be adjusted so as to incorporate both levels and to take account of political and administrative boundaries as well as the variety of physical and biological units being managed e.g. large marine ecosystems, marine catchment basins and species ranges. The oceans and coastal areas should be viewed as positive assets presenting opportunities for sustainable development. This requires an integrated approach at national, regional and international levels. The overall goal is to maintain the oceans as a functional part of the global life support system, as a productive resource, and as a current and future asset for multiple sustainable development and environmental benefits so as to meet the well-being of present and future generations.]

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Note: The underlined text corresponds to the new proposed texts by delegations.

The numbers at the end of the paragraphs indicate the original para. of doc. A/CONF.151/PC/42/Add.6.

3. Within this framework, achievement of the protection and sustainable use of the marine environment requires new approaches to ocean management, at the national, regional and international levels,--approaches that are integrated in content and precautionary and anticipatory in ambit. The overall goal is to ensure that the oceans provide environmental and economic benefits for the well-being of present and future generations.

This goal includes:

- [- integration of protection of the marine environment into/and overall economic development policies taking into account changes in value resulting from uses of the [coastal and] marine environment:]
- [- Rational use of the marine environment to provide the full requirements for a sustainable development]
- prevention, reduction and control of pollution [and other type of degradation] of the marine environment, including coastal and marine ecosystems;
- preservation of the biological diversity and productivity of marine species, [habitat] and maintenance of the ecological relationships among populations of such species.]

[3bis To achieve these goals, the United Nations General Assembly could accomplish the following actions:

- = Training at all levels, in the short, medium and long term of human resources for research, technology and management of coastal areas marine resources.
- Infrastructure Development and:
- Assignment of the necessary funds.

#### PROPOSED PROGRAMMES AREAS

Agenda 21 for oceans includes the following programme areas:

A. INTEGRATED MANAGEMENT [AND SUSTAINABLE DEVELOPMENT] OF COASTAL AREAS AND [MARINE ECOSYSTEMS][EXCLUSIVE ECONOMIC ZONES]

B. [MARINE ENVIRONMENTAL PROTECTION][MARINE POLLUTION, PREVENTION AND CONTROL: LAND-BASED AND SEA-BASED ACTIVITIES]

- 1 Prevention, Reduction and Control of Degradation of the Marine Environment from Land-based Activities
- 2 Prevention, Reduction and Control of Degradation of the Marine Environment from Sea-Based Activities
- 3 Prevention, Reduction and Control of Degradation of the Marine Environment from other Sources

C. MARINE LIVING RESOURCES [SUSTAINABLE UTILIZATION ON THE HIGH SEAS AND UNDER NATIONAL JURISDICTION]

- 1 High Seas [HIGH SEAS AND NATIONAL JURISDICTION]
- 2 National Jurisdiction]

[C. MANAGEMENT OF HIGH SEAS: LIVING MARINE RESOURCES

D. SUSTAINABLE USE OF LIVING MARINE RESOURCES UNDER NATIONAL JURISDICTION.]

D[E]. ADDRESSING CRITICAL UNCERTAINTIES [FOR OCEAN MANAGEMENT] AND CLIMATE CHANGE

E[F]. STRENGTHENING INTERNATIONAL, INCLUDING REGIONAL COOPERATION AND COORDINATION

[G. HUMAN RESOURCE DEVELOPMENT FOR OCEAN [AND COASTAL] MANAGEMENT]

Human Resource Development

Scientific and Technological Infrastructure Development

Costing and Financing]

Each Programme Area will include the following components:

Basis for actions

Objectives

Activities

Management-related

Data and Information

Capacity Building

International and Regional Cooperation and Coordination

[ Means of Implementation/Resource Requirements

Human Resource Development

Scientific and Technological Infrastructure Development

Costing and Financing]

[ Means of Implementation

Financing and Cost Evaluation

Scientific and Technological Means

Human Resources Development

Capacity Building of Developing Countries for Preventive and

Corrective Action in the Field of Environment Protection and

Promotion of Development].

A. INTEGRATED MANAGEMENT [AND SUSTAINABLE] DEVELOPMENT OF COASTAL AREAS AND [MARINE ECOSYSTEMS][EXCLUSIVE ECONOMIC ZONES].

Basis for action

4. The coastal area is important for human settlements and for development through agriculture, forestry, fisheries and aquaculture, various industries, port development, shipping, marine and coastal transport, shore protection, tourism and recreation, national security, waste disposal and conservation of marine ecosystems. The Economic Exclusive Zone (EEZ) is also very important for people and for development because in this area the coastal States exercise an active protection on the natural resources. Despite efforts at national, regional and international levels, the current sector and discipline oriented approach to the multiple use of marine and coastal resources does not provide an effective framework for achieving sustainable development. A holistic, multidisciplinary and inter-sectoral approach to planning and management is required in coastal areas (particularly in island States, low coastal countries, enclosed and semi-enclosed seas) to identify and deal with potential interactions; allocate resources; anticipate and avoid conflict; minimize environmental degradation and face the challenge of potential climate change. There is an opportunity to optimize the sustainable use of the coastal and EEZs areas and resources, building on the experience of regional programmes.(12)

[4bis Problems extend beyond fisheries. Coral reefs and other largely tropical coastal habitats such as seagrass communities, mangroves and estuaries among the most highly diverse, integrated and productive of the earth's ecosystems. They often serve important ecological functions, provide protection from hazards of the open sea, and are critical natural resources for food, energy, and economic development. In various parts of the world such coastal and marine systems are under stress or threatened due to factors ranging from local cultural practices to changes in sea temperature and or sea level.]

Objectives

5. Integrated management should provide the developing needs of coastal states, making full and cost effective use of natural resources, while maintaining and enhancing those resources for the use of future generations.

6. Assess, plan and manage on a rational economical base, the sustainable development of the coastal and the EEZ areas and their resources while protecting, restoring and enhancing its productivity and conserving its biodiversity, regulating access to resources and rates of use, promoting environmentally safe technology, ensuring compatibility among sectoral developments, cooperating on transboundary issues and assessing effects of potential climate change, particularly the sea level rise.(13)

7. Agree on guidelines for integrated coastal zone and the EEZs area management and development by 1994, and establish at national, regional and global levels integrated planning management and development processes for sustainable use of coastal zones and EEZs by the year 2000.(14)

8. Adopt programmes on the establishment of protected areas and other measures to maintain species and their habitats in coastal areas and EEZ.

9. Establish a unified policy framework and intergovernmental mechanisms for coastal and EEZ natural resources management and development. Coordination should be promoted with governmental organizations, decision-makers, academic and private sectors, NGO's, local population and other users for this matter. (64(a))
10. Enhance the coordination for coastal and EEZs issues and introduce cooperative mechanisms. (57)
11. Introduce, for regional bodies, new arrangements to ensure effective coordination in the fields of environmental protection, fisheries [marine resource utilisation] and development. [Provisions of mechanisms to facilitate the sustainable exploitation of the EEZs and the resources contained therein to meet the needs of the people.] (58)

#### Activities

##### Management-Related

12. Develop a Policy and Planning Framework. Each coastal State could establish a high-level planning body or a national coordinating mechanism involving with the governmental organisms the academic and private sector and the local populations for integrated coastal and EEZ management and development. The main activity could be to develop integrated programmes and implement master/integrated coastal and EEZ plans, as part of development plans that could include the following: (15)
- (a) Appropriate legal framework for permits, licences and enforcement measures, allocation of resources and space, for banning of environmentally harmful fishing gears [exploitation practices] and for liability and compensation provisions. Environmental impact assessment procedures could be made mandatory;
  - (b) [Programmes for operative environmental assessment] [Environmental assessment programmes identifying the causes of degradation of the marine environment as well as measures to prevent or correct such degradation.]
  - (c) Contingency plans for man-induced and natural disasters, taking into account the likely effects of potential climate change and sea level rise. Prior assessment of the potential significant adverse environmental impacts of major governmental policies, programmes and projects upon the coastal and the EEZ environment. The plans could include actions to restore altered critical habitats and living conditions of endangered species;
  - (d) Sectoral programmes addressing sustainability issues in each sector using the coastal area or impacting on it e.g. human settlements, tourism, fishing, ports and industries;
  - (e) Finance management systems, including accounting systems for coastal resources, allocation schemes and establishment of explicit user's rights and fees and investments, encouraging environmentally safe uses and rehabilitation and shifting from overcapitalized activities.
  - [(f) Public education and information programme to facilitate plan formulation, implementation and review.]

13. Coastal States could establish protected areas in coastal and EEZ ecosystems which are important because of their high species diversity or role as nursery and recruitment grounds for fish in particular coral reefs, seagrass beds, mangroves, coastal lagoons, estuaries and other coastal wetlands, including an inventory of endangered species and critical coastal and marine habitats and, where appropriate, protect them through national legislation.(33)

- (a) Members States could support scientific research on and monitoring of resources of these marine areas; particularly in areas of high diversity, endemism, productivity and spawning, recruitment, nursery grounds and migratory stopover points.
- (b) Non-governmental organizations could assist countries in enhancing public awareness of the importance of marine biodiversity.
- (c) Countries could implement national regulations to control the introduction of new species for aquaculture, which may have adverse effects on the ecosystem.
- [(d) Limited use of resources in protected areas could be allowed statutorily if their use is justified by tradition.]

[13bis Special measures [based on the best available scientific information] to preserve the habitats of marine species and designation of areas of the marine environment for special protection in order to:

- a) Protect rare or fragile ecosystems;
- b) Preserve or restore breeding, spawning, nursery and high biodiversity areas such as coral reefs, seagrass beds, mangrove forests and other highly productive habitats.
- c) Preserve or restore their scientific, wilderness, recreational or aesthetic values.
- d) Monitor changes in the marine environment.
- e) Preserve unique opportunities for scientific research.

Monitoring of changes to coral reefs and other marine life that threaten their ecological, economic and social value.]

#### International and Regional Cooperation and Coordination

14. Develop Technical Capacity for preparing policy interventions in support of integrated coastal and EEZs management.(17)

- (a) International and regional organizations could help countries develop enforcement capacity for monitoring, control and surveillance. Reference is made to document entitled Global Ocean Observing System (A/CONF.151/PC/70).
- (b) The coastal States with the cooperation of the relevant United Nations bodies and non-governmental organisations, could establish geographical information systems including appropriate data bases, statistics, maps and resource inventories particularly in sensitive areas and create a coastal multi-purpose monitoring system to assess the potential of coastal areas resources and their status.
- (c) Regional programmes could organize data networks with information about a critical mass of scientists and technicians for multi-disciplinary research and management of coastal and EEZ systems.



15. Set Up a Regional Coordinating Mechanism on coastal and EEZ development bringing together relevant international agencies, regional programmes, and donors including the regional development banks. Regional bodies could develop guidelines for improving compatibility between ecological and socio-economic concerns and among sectors, for restoring degraded natural systems to productive use and social benefit, and for transferring clean production technologies into coastal and EEZ development projects.(16)

#### Data and Information

16. Enhance the capacity of the developing countries for the acquisition and availability of information and data adequate for prior assessments of the potential significant adverse environmental impacts of [and informed judgments] about major governmental policies, programmes and projects affecting the coastal and EEZ environment.

To improve the information base, it is necessary to:

- a) Assess the fishing resources [marine resources].
- b) Rationalize and expand the data base available in most countries for management of coastal seas resources, with specific needs in mind. In particular, strengthen global coastal shelf and ocean observing systems, as proposed by IOC, UNEP and WMO need developing or strengthening.
- c) Assess technologies and information systems available to developing countries for storage and processing of data and for resources mapping, analysis and characterization (including remote sensing, coastal observing systems, etc). In particular, develop Geographic Information Systems (GIS) including appropriate training and equipment.
- d) Assess present status of coastal zones urgently, including diagnostics on eutrophication, occurrence of coral bleaching, red tides, "ciguatera", bacteria at beaches, nitrification and salination of groundwater, fish abundance, habitat degradation levels, identification of local and upstream impacting activities (agriculture and others), wetland obliteration, etc.
- e) Prepare inventories (atlases) of present and potential activities in the coastal areas (including human settlements), or with impacts on such areas, in order to identify compatible or mutually exclusive activities and problem areas. Identify boundaries for specific pilot projects and zoning purposes.
- [f) Prepare inventories (atheses) of present and potential resources and activities in the EEZs.][Delete]

#### Capacity Building

17. Member States could create an interministerial mechanism, within the national planning and development bodies, for policy-making and long-term planning on EEZ and coastal areas. The main tasks could include the following:

- (a) Rationalize and/or coordinate sectoral responsibilities for EEZ and coastal areas within Governments and establish a reviewing mechanism to update and enforce relevant national legislation to EEZ/marine management and coastal development.

- (b) Establish advisory bodies for broad consultation to stimulate participation with local administrations, the business community, the academic sector, user groups and the general public.
- (c) Include institutional capacity building in agreements between development aid bodies and developing country institutions.(66)

18. Coastal States could organize training and extension programmes for resources users including fishermen, women, and incorporate ocean issues and management in educational curricula and public awareness campaigns. Indigenous peoples could be supported to maintain and apply their traditional knowledge of the coastal environment and marine resources.(67)

19. Relevant global and regional agencies should cooperate with coastal countries in improving the scientific, technological, professional and related institutional capacities.

- (a) Identify existing capabilities and existing facilities within the countries of the region; determine the needs of human resources, the scientific and technological infrastructure required and potential for expansion in regional marine and coastal areas research, training, management and technologies.
- (b) Establish and maintain regional centres capable of assisting countries in analyzing information and assessing the principal environmental problems, in reinforcing surveillance and implementing environmental impact assessment and monitoring programmes with predictive capabilities.
- (c) Prepare national and regional contingency and emergency plans, standard techniques for monitoring species and habitats and develop geographic information systems for spatial planning in coastal areas. To establish the appropriate legislation to protect the marine and coastal ecosystems.
- (d) Create special programmes to assist island States to integrate environment and development in the planning process for their limited areas and resources.
- (e) Establish programmes on marine environmental education and enhance public awareness of the role of the marine environment for society.(68)

Means of Implementation/Resource Requirements

20.

- a) Development of human resources, regional and international institutions related to the subject should help developing island countries to improve their scientific and technical capacities for the integrated management of their coastal areas and EEZs, according to the following:
  - Define and implement regional training programs on integrated management of coastal areas and EEZs with the participation of local and regional research centres, as well with the native communities.
  - Establish geographical information networks as a support for activities related to the integrated management of coastal and marine areas.

b) Develop scientific and technological infra/estructure.

- The appropriate regional and international institutions could assist member States with support resources for the habilitation of monitoring and research centres, as information networks, specially in developing countries.

c) Cost and financing.

The cost and funding of the programs to implement and integrated management and development of coastal areas and EEZs should be met by coastal States with the help of special funds provided by donor States and institutions, as the World Bank and other regional financial institutions.

B. [MARINE ENVIRONMENTAL PROTECTION] [MARINE POLLUTION, PREVENTION AND CONTROL: LAND-BASED AND SEA-BASED ACTIVITIES]

Basis for Action

21. Anthropogenic degradation of the marine environment can result either from a lack of, or an excess, of economic and industrial growth. The size and distribution of human population, particularly in coastal areas, the patterns of land use [agriculture, forestry, fisheries, urban development] and industry, and the extent to which these activities are managed can impact negatively or positively on the marine environment. Recognition of the anthropogenic sources as basic causes of marine degradation is a crucial step towards effective solutions.

22. A wide range of activities on land contribute to degradation of the marine environment. Of the contaminants to the sea, 40% arrives via rivers and 30% via the atmosphere, while maritime and dumping activities contribute 10% each. The bulk of contaminants remain in coastal waters. The contaminants from land-based sources posing the greatest threat to the marine environment are sewage, nutrients, synthetic organic compounds, [particularly pesticides and herbicides] sediments, litter, metals, radionuclides, oil/hydrocarbons, and polycyclic hydrocarbons (PAH's). Soil erosion presents an additional source of harmful inputs.(35)

23. An anticipatory rather than a reactive approach is necessary to protect the marine environment. This will require the utilization of clean production techniques, policies to minimize wastes, improved sewage treatment and a comprehensive, sequential and coordinated approach involving all sectors including air, land and water interactions. Each coastal country should adopt, in accordance with its capabilities, precautionary measures to prevent, reduce and control pollution [and other forms of degradation of the marine environment from land-based activities] from land-based sources. [Any management framework must include waste audits, cleaner technologies, classification of substances, establishment of quality criteria, environmental impact assessment,] [Any management framework must include the enhancement and improvement of housing conditions and quality in ports and coastal zones in developing countries, due environmental impact assessment of new industrial site development for processes which include handling of chemicals and other

substances harmful and/or toxic to the marine environment] comparison of options, monitoring, and integrated management [and development] of coastal areas and EEZ.(36)

24. The substances involved in marine pollution caused by shipping and maritime activities vary enormously in quantities and potential harm to the oceans. In tonnage terms and visual impact the most important pollutant is crude petroleum and its derivatives. Of the approximately 600,000 tons of oil entering the oceans each year from maritime activities less than 25% is from major tanker accidents. A much larger quantity of oil is discharged as a result of normal shipping operations, e.g. pumping of bilges, tank cleaning and deballasting. The heavy concentrations of such residues in coastal areas give rise to chronic pollution, lowering aesthetic and recreational value. Offshore oil operations give rise to polluting discharges from separation of water from recovered oil and the disposal of drilling mud. Oil-well blow-outs can result in oil spillage of catastrophic proportions. There is currently no global regulatory regime for the prevention and control of pollution from offshore oil activities and only four regions have considered the adoption of legal instruments in this regard e.g. N.W. Europe in the Paris Convention, the Kuwait Action Plan Area's Kuwait Protocol, the Caribbean Countries' and the Mediterranean Countries' Barcelona Protocol now under consideration.(43)

25. On the other hand, many chemicals carried by sea are intrinsically far more harmful to the marine environment. Some can bio-accumulate in quantities that present a danger to human health, while others taint fish, making them unsuitable for human consumption. Of the global merchant fleet of approximately 70,000 ships, some 7,000 are tankers. The global chemical tanker fleet has doubled in the past 10 years to approximately 1,000. A substantial volume of other chemical products are carried in packaged form such as drums or in especially constructed containers. Up to 15% of goods carried in dry cargo ships are dangerous to some degree. These, together with liquid substances carried in oil and chemical tankers, make about half of the total cargo carried by the sea.(44)

26. Another cause of pollution is that arising from disposal of wastes at sea. Plastics and other solid wastes are extremely persistent and potentially harmful if ingested by seabirds and marine mammals. By changing industrial processes and the use of recycling methods and improved waste treatment techniques the amounts of wastes dumped at sea have been reduced. In spite of these efforts, disposal at sea of certain waste types, particularly uncontaminated dredged materials, continues to be considered practical and environmentally acceptable. More attention must be paid to the selection of dumping sites, dumping techniques and monitoring programmes and the application of hazard assessment techniques within a licensing regime which can provide the necessary level of marine pollution prevention and control.(45)

27. In addition to the environmental impact of oil spills there are frequently economic repercussions for coastal communities or small countries reliant on the resources of the sea. Automatic financial access to resources to cover clean-up costs and economic damage through liability and compensation regimes have done much to mitigate the effects of accidental oil pollution by facilitating prompt and effective counter-pollution operations.(46)

[27bis. Wider ratification by coastal States of the relevant conventions, and the extension of the existing regimes to cover pollution caused by substances other than oil is essential. Specific objectives could be considered and developed in the following areas:

- (a) International ratification and implementation of shipping conventions and more rigorous enforcement of the discharge provisions, eg. through port State control. Coastal nations, on the basis of guidelines issued by International Maritime Organization, and assisted by same, could aim to establish by 1997 port facilities for the collection and disposal of waste oil, chemical residues and garbage, especially in sensitive sea areas where ships are not permitted to make discharges. This would require substantial funding.
- (b) Encourage States to ratify [and finalize the future strategy of] the London Dumping Convention by 1994.
- (c) Develop an international regulatory global framework for offshore oil discharges, safety and disposal activities by 1995.
- (d) Implement liability and compensation regimes covering pollution damage from shipping and dumping activities, the immediate goal being the development of a regime for hazardous and noxious substances carried by ships.(47)
- [(e) Improve living conditions of port and coastal human settlements in developing countries, and give special attention to adequate housing and sewage.]
- (f) Technical and scientific capacity building and enhancement of research centers for systematic observation of marine pollution in developing countries, managed and staffed with experts from the concerned developing country.]

28. In addition to pollution, many [development][economic] activities directly and indirectly adversely affect marine resources. For example, industrial and residential development, [including touristic and recreational building] can destroy natural habitats [dredging mangroves and similar areas] by filling wetlands channelization, and construction of dams [and other coastal infrastructure]. Unsustainable agricultural, forestry and construction practices can increase levels of sediment in coastal areas, thereby negatively affecting many organisms, such as coral reefs and shellfish. Conversion of mangroves, forests and other low-lying lands to mariculture not only destroys productive natural systems, but can also lead to introduction of non-indigenous species.

#### Objectives

29. The protection of the marine environment against the adverse effects of human activities [and human development] so as to conserve marine ecosystems and to safeguard human health while providing for rational use of living and non-living resources. In so doing, it is necessary to:

- (a) Ensure the proper integration of environment and development concerns.
- (b) Recognize the difficulties of developing countries in implementing such strategies.

30. Accordingly, States, acting individually and through appropriate regional and international fora, agree to:

- (a) Coordinate and integrate [and develop] measures to achieve marine environment protection and conservation through appropriate local, national, regional, and global mechanisms [and policies].
- (b) Adopt and implement, as a matter of priority, precautionary measures to prevent, reduce, and control degradation of the marine environment from land-based and sea-based activities.
- (c) Use economic measures, clean technology, and sustainable resource management to limit industrial and agricultural practices that threaten the marine environment.
- (d) Maximize best practicable control and reduction of toxic, persistent, and bio-accumulative pollutant discharges.
- (e) Restore degraded habitats so that they provide a sustainable marine ecosystem.

#### Activities

#### B.1. PREVENTION, REDUCTION AND CONTROL OF DEGRADATION OF THE MARINE ENVIRONMENT FROM LAND-BASED ACTIVITIES

##### Management-Related Activities

31. The following goals and essential programme elements are necessary components of a comprehensive strategy to protect, conserve, prevent, reduce, and control degradation of the marine environment from land-based activities.(37)

32. Suggested specific objectives include:

- (a) Identify existing institutional and technical impediments to conserving the marine environment.
- (b) Adoption of a global management [and development] framework by 1994; [The functioning by 1994 of a global framework for intergovernmental cooperation with close links to regional conventions and action plans.]
- (c) Strengthen and develop national and regional integrated action plans such as the United Nations Environment Programme Regional Seas Programmes [and the Intergovernmental Oceanographic Commission by 1995;

33. States may wish to consider the following incremental steps:

- (a) Agreed principles and programmes, building on the existing Montreal Guidelines, with the appropriate funding and technical support where applicable, at the national, regional and global levels, including possible establishment of appropriate standards.
- (b) A formal declaration or charter to be adopted at UNCED.
- (c) A global convention to formulate principles and standards with provisions for the institutional machinery to implement the convention. The Montreal Guidelines, complemented and amended as appropriate, could serve as the basis for the convention.(38)

34. Coastal states should establish in regional and national action plans, [reduction programmes for inputs from land-based activities] into the marine environment, [in order to achieve] [acceptable quality of the marine environment] together with target dates and financial mechanisms. While obvious global priorities exist both national and regional differences in terms of knowledge, viewpoints, infrastructure and technology, require different emphasis throughout the world. Countries should adopt precautionary approaches to development and management. Such approaches could involve a reduction of [effluents and] emissions, through, inter alia, improved housekeeping practices, greater treatment and recycling, and the introduction of cleaner production technologies. In both developed and developing countries, priorities should include appropriate sewage and industrial effluents treatment and disposal, synthetic organic compounds, and non-point runoffs. As well, priority attention should be given to pollution from land-based sources which reach the oceans via the atmosphere. (39)

35. As concerns sewage, priority actions in this area include:

- (a) Building sewage treatment facilities [and safeguarding the maintenance and operation of treatment plants] [in accordance with national policies, capacities and international cooperation available].
- (b) Entry of non-domestic effluent to sewers containing contaminants (such as heavy metals) should be strictly controlled so as not to preclude productive uses of sewage and not exclude the possibility of environmentally sound co-treatments of domestic and compatible industrial effluents.
- (c) Municipal sewage [and industrial effluents] discharged to rivers, estuaries and the sea should, as a minimum, be subject to primary treatment.
- (d) Coastal outfalls should be located so as to avoid exposing shell fisheries, water intakes and bathing areas to pathogens. (40)
- (e) Cooperation in the development of minimum sewage effluent guidelines and water quality criteria for municipal [and industrial] wastes.
- [(f) Settlement plans should be formulated or reviewed taking into account sewage concerns including resettlement of heavily populated coastal and riverbank areas.]
- [(g) The establishment of regulatory and monitoring programmes to control effluent discharge, using appropriate risk and environmental impact assessments.]

[36. As concerns wastes, the main elements to be considered by coastal countries are:]

- (a) Regulatory and monitoring programmes to control effluent discharge, using appropriate risk and environmental impact assessments.
- (b) New ["prior informed consent" policy] [prior notification and consultation] initiatives at national and regional levels for controlling the input of non-point source pollutants, including sediments, which requires broad changes in sewage and waste management, shifts in agricultural practices, and environmentally compatible approaches to mining, construction and transportation practices.
- (c) A review and control regime of loads (fluxes) of nitrogen and phosphorus entering the marine environment. (41) Taking into account different national capacities.

- [(d) Assistance to developing countries to develop land-based waste disposal systems to preclude sea-dumping through financial support and transfer of environmentally sound technology.]
37. As concerns pollution from non-point sources:
- (a) Cooperation in the development of land-use techniques, particularly buffer zones, along estuaries and water courses to limit agricultural runoff;
  - (b) Promotion of bilaterally and multilaterally through international development organizations and industry the use and application of environmentally sound pesticides and fertilizers (e.g., minimum toxicity and bio-accumulation standards).
  - (c) Elaboration of best environmental practices to prevent degradation.
  - [(d) Adoption of new ["prior informed consent" policy] [prior notification and consultation] initiatives at national and regional levels for controlling the input of non-point source pollutants, including sediments, which requires broad changes in sewage and waste management, shifts in agricultural practices, and environmentally compatible approaches to mining, construction and transportation practices.
  - (e) Establish a review and control regime of loads (fluxes) of nitrogen and phosphorus entering the marine environment. Taking into account different national capacities.]

38. Countries could adopt a declaration at UNCED 1992 on land-based sources [a set of principles on prevention, reduction and control of degradation of the marine environment by land-based activities] following the recommendations of the Halifax and UNEP Intergovernmental Meetings of Experts. This could include specific elements for a subsequent global strategy and action plan on marine environmental degradation from land based activities. An Intergovernmental Meeting of Experts on Land-based Sources of Marine Pollution will meet again toward the end of 1991, following the decision of the UNEP Governing Council at its Sixteenth Session. This meeting could support the UNCED Preparatory Process by helping in the articulation of UNCED options for action [in preparing elements of a strategy and a targeted and costed programme of action as well as a set of principles concerning prevention, reduction and control of marine degradation caused by land-based activities] to be considered again at the Fourth Preparatory Committee. (42)

## B.2 PREVENTION, REDUCTION AND CONTROL OF DEGRADATION OF THE MARINE ENVIRONMENT FROM SEA-BASED ACTIVITIES

### Management-Related Activities

39. Wider ratification by coastal States of the relevant conventions, and the extension of the existing regimes to cover pollution caused by substances other than oil is essential. Specific objectives could be considered and developed in the following areas:

- (a) International ratification and implementation of shipping conventions and more rigorous enforcement of the discharge provisions, eg. through port State control. Coastal nations, on the basis of guidelines issues by International Maritime Organization, and assisted by same, could aim to



establish by 1997 port facilities for the collection and disposal of waste oil, chemical residues and garbage, especially in sensitive sea areas where ships are not permitted to make discharges. This would require substantial funding.

- (b) Encourage States to ratify [and finalize the future strategy of] the London Dumping Convention by 1994.
- (c) Develop an international regulatory global framework for offshore oil discharges, safety and disposal activities by 1995.
- (d) Implement liability and compensation regimes covering pollution damage from shipping and dumping activities, the immediate goal being the development of a regime for hazardous and noxious substances carried by ships.(47)

40. Countries should initiate regional agreements to prevent, reduce and control marine pollution arising from artificial islands, installations and structures used in the exploration and exploitation of offshore oil [and other] resources, and ballast water dumping rules to prevent the spread of non-indigenous organisms.(48)

41. As concerns shipping, coastal States could urge wider ratification and implementation of safety and marine pollution conventions, including those dealing with liability and compensation for pollution damage and rigorous enforcement of MARPOL regulations (e.g., through exercise of port State control procedures and aerial surveillance of shipping lanes). States could also implement more stringent pollution control measures [in semi-enclosed seas, the polar regions and particularly sensitive sea areas].(49)

42. In relation to ports, countries could urge the provision of facilities for collection and treatment of wastes from ships and for vessels and yachts in marinas and fishing harbours by:

- (a) In accordance with the London Dumping Convention and MARPOL provisions, regulation of dredging of navigation channels and disposal of dredged material, including global criteria for ocean disposal of contaminated spoils.
- (b) Development of guidelines for environmental impact assessments of port development and expansion and wider enforcement of codes of practice relating to transportation of hazardous and dangerous cargoes, and for detection of illicit movement of toxic chemicals and hazardous wastes. (50)
- [(c) Channels of communication and coordination between the Secretariats of the Basel and London Dumping Conventions should be strengthened and be more open in order to prevent parties to the Basel Convention from exporting, for disposal in the ocean, substances referred to in Annexes I and II to the London Dumping Convention to States not parties to that Convention.]

43.

- (a) States should develop oil and chemical spill contingency plans at local, national and regional levels and establish at the national level, government/industry collaboration mechanism on provision of oil spill response materials and equipment stockpiles, and training of clean-up personnel, together with a funding mechanism.(51)

- (b) States should establish a network of regional oil/chemical spill response centres with collaboration from IMO and regional Governments.

44. Member States should agree to stop the dumping and incineration of all hazardous wastes and substances and encourage a global commitment to more assiduous application of the provisions of the London Dumping Convention and regional dumping protocols, where adopted. IMO could prepare global guidelines concerning waste audits and clean production, and lists of substances and wastes prohibited from dumping at sea and could assist States to enter into regional agreements in this regard.(52)

45. States should develop liability and compensation regimes for hazardous and noxious substances as well as other sea-based activities (e.g., dumping, offshore oil and gas and transboundary movements of hazardous substances and wastes).(53)

#### Data and Information

[46. [States] Countries should establish monitoring systems and regularly report information on pollutants and efforts to control and prevent them to relevant regional and international organisations.]

47. [States] Countries should identify ongoing and planned programs of monitoring of the marine environment, with a view to integrating activities and establishing priorities for further monitoring activities.

48. [States] Countries should cooperate through relevant international organisations in integrated monitoring of the marine environment by:

- (a) Expanding the international mussel watch program.
- (b) Relating monitoring activities to action plans and pollution control and abatement strategies.
- (c) Expanding GIS mapping and information systems.

[49. Countries could:

- (a) Complete, with the support of regional and national programmes, inventories and hazard assessments of marine pollution sources by 1997, and
- (b) Complete national, regional and global assessments of marine environment by 1997.(37(c) and (d))
- (c) [States] Countries should, with the appropriate funding support build on existing facilities, support the Global Ocean Observing System. The GOOS should include appropriate equipment to monitor pollution in coastal and open ocean areas. Data on marine pollution should be available to interested parties and stored at World Data Centres.]

#### Capacity Building

50. States should create a high level mechanism, within the national planning and development bodies, for policy-making and long term planning on oceans and coastal areas. The main tasks could include the following:

- (a) Rationalize and/or coordinate sectoral responsibilities for oceans and coastal areas within Governments and establish a reviewing mechanism to up-date and enforce relevant national legislation to ocean management and coastal development.
- (b) Establish advisory bodies for broad consultation to stimulate participation with local administrations, the business community, the academic sector, user groups and the general public.
- (c) Include institutional capacity building in agreements between development aid bodies and developing country institutions.(66)

51. Coastal States should organise training and extension programmes for resource users including fishermen, women, and incorporate ocean issues and management in educational curricula and public awareness campaigns. Indigenous peoples should be supported to maintain and apply their traditional knowledge of the coastal environment and marine resources.(67)

52. Relevant regional agencies should assist developing coastal countries in improving the scientific, technological, professional and related institutional capacities.

- (a) Identify existing capabilities and existing facilities within the region and potentials for expansion in regional marine and coastal areas research, training, management and technologies.
- (b) Establish and maintain regional centres capable of assisting countries in analyzing information and assessing the principal environmental problems, in reinforcing surveillance and implementing environmental impact assessment and monitoring programmes with predictive capabilities.
- (c) Prepare national and regional contingency and emergency plans, standard techniques for monitoring species and habitats and develop geographic information systems for spatial planning in coastal areas.
- (d) Create special programmes to assist island States to integrate environment and development in the planning process for their limited areas and resources.
- (e) Establish programmes on marine environmental education and enhance public awareness of the role of the marine environment for society.(68)
- [(f) The development aspects should also be focussed upon to restore symmetry and balance the complementary environment and development concerns.]

#### International and Regional Cooperation and Coordination

[52bis While an international land-based pollution agreement is needed, as stated, support for such an agreement is conditioned upon the establishment of effective provisions for financing and development, use and transfer of environmentally sound technologies.

High priority needs to be given to the development of effective financial mechanisms at the national, regional and global levels for sewage treatment facilities, in order to ensure that developing countries have access to the necessary resources to deal in a more effective way land-based marine pollution.]

53. Countries could work with appropriate international organizations to develop comparable monitoring techniques, methodologies, and measurements for all aspects of marine pollution.

Means of Implementation/Resource Requirements

54. Provide adequate financial and technical resources to assist developing countries to prevent and solve problems associated with activities that threaten the marine environment.

55. Provide technological cooperation, technology transfer, and financial resources to support the implementation of national action programmes and regional joint comprehensive programmes of action.

56. Specific suggestions include:

(a) A funding mechanism for building sewage treatment facilities, including grants or concessional loans from international agencies, such as UNDP, UNEP, [IOC], World Bank and other appropriate regional funds.

57. Establishing of specific financing [for developing countries of] mechanisms for building port facilities, including loans or grants from international agencies, including the UNDP, UNEP, [IOC] and World Bank's Global Environmental Facility or a system of "Reception Facility Funds" of automatic charges on [non-sovereign immune] ships.(50(a))

[C. MARINE LIVING RESOURCES (SUSTAINABLE UTILIZATION ON THE HIGH SEAS AND UNDER NATIONAL JURISDICTION)]

[C. MANAGEMENT OF THE HIGH SEAS: LIVING MARINE RESOURCES

.D. SUSTAINABLE USE OF LIVING MARINE RESOURCES UNDER NATIONAL JURISDICTION].

Basis for action

General

58. The conservation and management of marine living resources should take place on the basis of sustainable utilization. This is of social, economic and nutritional importance, and contributes to national food security, not least to developing countries and indigenous peoples. The special status of indigenous peoples should be recognized including their rights to utilization and protection of their habitats on a sustainable basis.

[C.1 HIGH SEAS]

59. While high seas fisheries contribute to the effective utilisation of resources and to the world supply of protein, management performance on the high seas, has not infrequently been unsuccessful and many resources are overfished. [Management performance on the high seas has not always been successful and several types of resources are overfished]. In a number of high seas areas, the provisions of the United Nations Convention on the Law of the Sea (UNCLOS) are not being implemented as intended. [There are problems

of unregulated fishing, vessel reflagging to escape controls, fishing practices such as large-scale pelagic driftnetting and overfishing, lack of surveillance, control and enforcement and, in general, lack of the required cooperation with other States.]

[C.2 NATIONAL JURISDICTION]

60. World oceans yield about 80-90 million tons per year, 95% of which comes from EEZs. They provide healthy food and livelihoods to millions of people in coastal areas. However, many countries continue to face mounting problems related to implementation of their rights and obligations under UNCLOS, including local overfishing, [poor management performance] unauthorized incursions by foreign vessels, ecosystem degradation, increased stock fluctuations, overcapitalization, excessive fleet sizes, inefficient selective gear, unreliable data bases and inadequate information about their resource base, increasing competition between artisanal and industrial fishing and between fishing and other types of activities.(22)

61. Problems extend beyond fisheries. Coral reefs and other largely tropical coastal habitats such as seagrass communities, mangroves and estuaries among the most highly diverse, integrated and productive of the earth's ecosystems. They often serve important ecological functions, provide protection from hazards of the open sea, and are critical natural resources for food, energy, and economic development. In various parts of the world such coastal and marine systems are under stress or threatened due to factors ranging from local cultural practices to changes in sea temperature and/or sea level.

[Objectives

General

[62. Fisheries [must] be managed through ecosystem, multi-species management approaches on the basis of sustainable ecologically sound practices consistent with the best available scientific information, and must be effectively monitored and enforced, in order to ensure conservation and promote optimum utilization of the living resources.

63. Ecosystem and multi-species approaches must be developed and implemented to preserve the biological diversity and productivity of marine species and maintain the ecological relationships among populations of such species.]

64. [States must] [States in accordance to their national legislation and policies could] ensure as far as practicable that human activities do not result in the decrease of any population of marine species with special attention to marine mammals and sea turtles, below a level at which its recruitment is stable, but preferably not below a level close to that which ensures the greatest net annual increment: populations of marine species that have been depleted by harvesting should be restored to these levels.

65. Data and information [must] [should] be obtained [by States with the cooperation of international organisations], including verifiable catch and effort statistics, on the commercial harvesting of populations of marine species, including by-catch, adequate to reliably assess and predict the effects of such harvesting.

66. Selective fishing gear and practices should be used to [avoid] [minimise] significant waste of catch of target populations of marine species and the significant bycatch of non-target species.

[66bis. The full implementation of General Assembly resolution 44/225 on large-scale pelagic drifnet fishing.]

[67. States should ensure that each population of marine species that is the target of fishing [exploitation] activities is harvested in areas and at the stage of its life cycle that ensures maximum economic efficiency, consistent with these principles.]

68. Fish [marine species] for human food, should take priority over other uses, and the amount available for human food should be increased by avoiding wastage and improving techniques of capture [harvest], handling and transportation.

#### [C.1 HIGH SEAS]

69. [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]. High seas fishing [must] not have an adverse impact on the resources under the jurisdiction of coastal States].

70. Over the next few years, effective regional and international mechanisms and strategies should be developed and implemented where appropriate, through cooperation between high seas fishing States, coastal States and relevant international organizations and existing regional and international mechanisms should be reinforced where appropriate:

- (a) To conserve and make full sustainable use of the living marine resources of the high seas, and to improve the status of those which are depleted.
- (b) To define and identify management units based on large marine ecosystems concepts.
- (c) To provide for the negotiation of appropriate international agreements.
- d) To establish appropriate exploitation regimes for stocks whose life cycles encompass both the high seas and EEZ's.

#### [C.2 NATIONAL JURISDICTION]

71. The objective would be to build national capacity over the next 10 years to make full sustainable use of the EEZs.(23)

Activities

General

[72. [Assessment] [Promotion] of fishing methods to minimise adverse impacts of fishing on target and non-target species, other users and marine ecosystems:]

[72. Assessment of fishing methods and banning of unsustainable fishing techniques, such as large scale pelagic drifnet fishing in accordance with General Assembly resolution 44/225, in order to minimise adverse impacts of fishing on target and non-target species, other users and marine ecosystems.]

73. Development and sharing of analytical and predictive tools such as stock assessment and bioeconomic models to assist in risk management and decision-making:

74. [Cautious handling of] [Harmonizing with] all situations dealing with risk, uncertainty and irreversibility:

75. Integration of environmental factors in management:

76. Acquisition of all the data, current and historic, necessary for effective management of fisheries resources including data on catch and effort, by-catch and the impact of the fishing on other users and the marine environment:

77. Promotion of regional fisheries management bodies [to cover the gaps in the existing coverage of the world's oceans:]

81. [Marine mammals. Continuing consultations.]

[- Affirm the validity of the 1972 United Nations Conference on the Human Environment recommendation that there should be a 10 year moratorium on Commercial Whaling and call for its full implementation by extending the present moratorium on commercial whaling until 1995/96:

- Welcome the IWC report on small cetaceans and urge IWC to continue to strengthen this work, and Governments specifically concerned to act promptly on the recommendations of the IWC's Scientific Committee on this issue:

- Call for an international conference with the widest possible participation to be convened by 1995 to review the international machinery for the protection of all cetaceans, and to consider the most effective means for providing cetacean research, conservation and management into the twenty-first century.]

[Support the International Whaling Commission in its efforts to ensure proper and effective conservation and development of large whale stocks.

Same efforts for conservation of other depleted or endangered marine mammals should be made by countries and appropriate international bodies.]

(1- Acknowledge the principles of sustainable use in all dealings with marine mammals resources, and recognize the special needs of developing countries and indigenous peoples of the marine resources of their nutritional and economic development.

- Support the IWC in its efforts to restore stocks of highly migratory species of whales and call for increased scientific research and advice to fulfil this effort.
- Support scientific research on small cetaceans with the aim of creating national and regional conservation of these species.
- Support the Bonn Convention in its efforts to promote the establishment of regional agreements on management and conservation of small cetaceans.
- Call on the Governments to review and strengthen all possible efforts to counteract pollution threats to all marine mammals.]

82. [Polar regions and specific seas]

[Delete]

[The Antarctic Treaty Parties that singling out Antarctica to be identified as a specific regional issue for consideration by UNCED is inappropriate for the following reasons:

-The Antarctica Treaty provides a tried and tested basis for managing activities in Antarctica.

-In the carefully drafted General Assembly resolution 44/228, neither Antarctica nor any other specific region has been identified as one of the UNCED priority areas.

-UNCED already has a hardly manageable workload: identifying specific regions for priority action within the proposed Agenda 21 would open the doors to unravel a carefully negotiated settlement on priority issues and areas as contained in resolution 44/228.

Consistent with this approach therefore, the Treaty Parties will oppose the inclusion in a possible Agenda 21 of specific references to Antarctica such as those contained inter alia in paragraphs 18, 20 and 34 of A/CONF.151/PC/42/Add.6, or as proposed by some distinguished delegates in the course of our debate.]

- [In the Polar regions, through United Nations involvement, to improve and introduce the anticipatory approach and adopt and implement an Antarctic Conservation Strategy, the Arctic Environment Protection Strategy and promote the Arctic Monitoring and Assessment Programme.

The following elements should be included:

-To establish a sanctuary for all cetaceans in its traditional natural habitat.



-Call upon the ATCP to protect and improve the status of living resources in the Antarctic region, including marine ecosystems and report regularly to the United Nations on its status through the General Assembly.

In relation to Maintenance of Ecosystem and Marine Biodiversity, the following elements should be included:

- (a) Call for efforts to prevent overfishing including the banning of prospecting and mining in Antarctica so as to ensure the protection of its environment is for the benefit of all mankind.
- (b) Call for the establishment of a nature reserve or World Park in Antarctica which constitute an integral part of the global commons.

In relation to Strengthening International Institutions and Legal Instruments, the following elements should be included:

- To establish a United Nations sponsored station in Antarctica with the view to promoting coordinated international cooperation in scientific research for the benefit of mankind, particularly the importance of Antarctica to the global environment and ecosystems, as well as an early warning system on climate change and accidents.
- Call for the widest possible participation of the international community to review and negotiate a comprehensive convention on the Conservation and Protection of Antarctica.]

#### Capacity Building

83. Each coastal country could establish:

- (a) A unified policy framework and intergovernmental mechanisms for coastal management and marine resources management through a permanent consultation between the decision makers and the users.
- (b) Procedures to involve the coastal communities the academic and private sector in the development and implementing programmes.(64)

84. Member States could create an interministerial mechanism, within the national planning and development bodies, for policy-making and long term planning on oceans and coastal areas. The main tasks could include the following:

- (a) Rationalize and/or coordinate sectoral responsibilities for oceans and coastal areas within governments and establish a reviewing mechanism to update and enforce relevant national legislation to ocean management and coastal development.
- (b) Establish advisory bodies for broad consultation to stimulate participation with local administrations, the business community, the academic sector, user groups and the general public.
- (c) Include institutional capacity building in agreements between development aid bodies and developing country institutions.(66)

85. Relevant regional agencies could assist coastal countries in improving the scientific, technological, professional and related institutional capacities.

- (a) Identify existing capabilities and existing facilities within the countries of the region; determine the needs of human resources, the scientific and technical infrastructure required and potential for expansion in regional marine and coastal areas research, training, management and technologies.
- (b) Establish and maintain regional centres capable of assisting countries in analysing information and assessing the principal environmental problems, in reinforcing surveillance and implementing environmental impact assessment and monitoring programmes with predictive capabilities.
- (c) Prepare national and regional contingency and emergency plans, standard techniques for monitoring species and habitats and develop geographic information systems for spatial planning in coastal areas. To establish the appropriate legislation to protect the marine and coastal ecosystems.
- (d) Create special programmes to assist island States to integrate environment and development in the planning process for their limited areas and resources.
- (e) Establish programmes on marine environmental education and enhance public awareness of the role of the marine environment for society.(68)

[C.1 HIGH SEAS][HIGH SEAS AND NATIONAL JURISDICTION]

Management Related

86. States [must] effectively monitor and control fishing activities of their nationals vessels and crews thereof to ensure the conservation of the resources, compliance with applicable conservation and management rules, complete and accurate reporting of catches and effort, and [avoidance][minimisation] of incidental catch.

87. States [must] ensure that vessels authorized to fly their flag comply with the [applicable] conservation and management rules adopted by competent international [or regional] organizations or, where no such organization exists, through other [international] arrangements.

88. States [must] establish penalties under domestic law, and take legal action against their nationals, vessels and crews thereof, for any violation of [applicable] rules adopted by competent international [or regional] 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.

89. States whose nationals or vessels fish in the same area of the high seas [must] cooperate to establish international [or regional] 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.

90. [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].

91. In areas of the high seas where a management régime has been agreed within the framework of a [competent international [or regional] 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.

92. [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: [high seas fisheries [must] not be directed toward the stock when the stock is fully utilized by the coastal state within its exclusive economic zone].

93. [With respect to a highly migratory species, the management régime 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 adverse impact on the resource within that zone].

#### Data and Information

94. The transparency of high seas fishing activities [must] be ensured. States [must] make available to appropriate international [or regional] organizations all relevant data relating to catches on the high seas. The relevant international [or regional] organizations should establish appropriate monitoring programmes including the standardized collection of scientific data and the deployment of scientific observers.

#### Capacity Building

(see under General)

#### Global and Regional Cooperation and Coordination

95. The international community should strengthen capacities for collaboration between regional and global [international] fishery bodies [dealing with conservation and management of the oceans and seas. The], the United Nations Environment Programme Regional Seas Programme should be strengthened and the following action should be taken:

- (a) Relevant United Nations or other international Agencies should develop guidelines for better implementation of the Law of the Sea Convention (UNCLOS). FAO should prepare technical guidelines on responsible fishing in the high seas.

- (b) Countries together with relevant international fisheries organizations and United Nations Agencies should establish programmes and special agreements to protect endangered species and stocks and to establish appropriate exploitation régimes for all stocks and species including those whose life cycles encompass both the high seas and EEZs. [This should include banning unsustainable fishing techniques and practices and restriction of less sustainable techniques and practices.][Delete.](20)

96. Relevant United Nations bodies and other international agencies could develop collaborative technical and research programmes to improve understanding of species life cycles and migration, identifying critical areas and life stages.

- (a) Countries with the assistance of relevant United Nations and other international Agencies and non-governmental organizations, could identify linkages between EEZs and high seas resources and could develop further the concept of large marine ecosystems and its potential for practical application in ocean management régimes.
- [(b) FAO and other international agencies should assess resources potential, optimal fishing régimes and acceptable levels of exploitation and develop reliable international monitoring, control, surveillance and enforcement systems.]
- (c) Regional fisheries bodies should link information systems which have part of the high seas ecosystem under their responsibility and inventory all stocks (target and non-target) in order to set up rehabilitation measures where appropriate.
- (d) GATT assisted by the FAO, should strengthen international technical cooperation mechanisms in relation to high seas stock-commodities with a view to identifying and eventually eliminating inappropriate trade barriers and assisting in preventing the evasion of international management régimes.(21)

[96bis. States should develop multilateral standards dealing with the interlinkages between trade and the protection of living marine resources, taking into account concerns on sustainable development.]

#### [C.2 NATIONAL JURISDICTION]

##### Management Related

97. Coastal States could establish systems to regulate access through licensing, explicit user's rights, limited entry, space allocation, closure zones and economic instruments; and domestic and international collaborative mechanisms on issues related to migratory fish [and long range fleet monitoring and control.]

98. Coastal States could strengthen environmentally sound artisanal fishing technologies, collaborate with traditional coastal communities for the elimination of unsound ones, and strengthen training and extension services in coordination with rural agriculture services together with appropriate financing mechanisms.

99. Coastal States could ensure that, in their negotiation and implementation of international agreements on the conservation of living marine resources, indigenous peoples are represented and their interests in particular their right to subsistence, are secured.(24(b) and 28(b))

#### Data and Information

100. Coastal states together with United Nations and other international agencies could complete/update living resource and critical habitat inventories of EEZ's, at national and regional levels (coastal wetland, mangroves, seagrass beds, etc.) and develop legislation to protect them. FAO could develop methodologies to improve assessments in data-limited situations for the analysis of interactions between sectors and management under uncertainty.(25(a))

101. Coastal States could establish and improve data collection systems, and, when appropriate, provide the necessary data to regional and global fisheries bodies.

#### Capacity Building

102. National policy, legal and regulatory frameworks could be completed with the assistance of relevant international organizations looking toward improved enforcement capacity, investment and financing including joint venture agreements, regulation of access, enhancement of small-scale fisheries, the improvement of seafood quality and rationalisation of trade.(24)

103. Information systems, training and management-oriented research programmes could be implemented to provide a framework incorporating the ecosystem management approach at the national and regional level.(25)

104. Mariculture and coastal aquaculture potentials could be developed. National analyses for potential mariculture, coastal aquaculture (areas, species and methodologies) and other improvements e.g. artificial reefs, in each developing coastal country could be developed within ten years within a framework of Integrated National Planning.

105. Coastal States could take steps to enhance the productivity and utilization of their marine living resources in terms of food production and income production from food products, pharmaceutical products, and recreational, cultural and aesthetic uses.

106. Coastal states could develop systems for the recognition, recording and application of community based traditional knowledge concerning marine resources and ecosystems and incorporate them into modern management systems in collaboration with the people and community concerned.(29(d))

#### Global and Regional Cooperation and Coordination

107. Relevant United Nations and other international agencies should assist coastal countries to complete their legal and policy frameworks in line with UNCLOS, as well as to improve management methods including control and surveillance and provide assistance to developing countries for research and development of economic uses of marine living resources. They should prepare guidelines for [responsible] [environmentally sound] fishing with a view to reduce wastes, protect endangered species, reduce pollution [from fishing] and improve fishing gear efficiency and selectivity. (24(a)) [They should also provide for the transfer of environmentally sound technology to developing countries to develop their fisheries, and to replace fishing practices identified as harmful to marine species.] [As related to fishing practices which become harmful to marine species because of significant ways of catch or significant bycatch of non-target species, in relation to the development of new technologies, new standards should be reached through international agreements. These agreements will provide for the transfer of the new environmentally sound technology to developing countries and the provision of new additional funds for its implementation.]

108. Relevant United Nations and other international agencies should prepare a set of guidelines for potential application of a precautionary approach to living resources management; the concept of the Marine Catchment Basin for enclosed seas, as well as the ecosystem management approach and "large marine ecosystems" concepts; including the practical implications and applications. (25(c))

109. FAO should prepare guidelines for [responsible and] environmentally sound intensive aquaculture to reduce environmental impacts and develop plans for basic, strategic and applied research especially on rural aquaculture. (26(b))

[109bis. States should develop multilateral standards dealing with the interlinkages between trade and the protection of living marine resources, taking into account concerns on sustainable development.]

110. The international community should develop/improve markets to promote direct human consumption of fish and to enhance the contribution of subsistence fisheries. (27(c))

111. Relevant United Nations Agencies should establish a methodology to assess the nutritional and health impacts of fishery policies and projects. (27(d))

112. Relevant United Nations programmes and agencies could provide to traditional coastal communities of indigenous peoples and, in developing countries, to subsistence fishermen [fisherfolk] the technical and financial assistance to organize and maintain global networks for the exchange and improvements of traditional and scientific knowledge of marine resources, their protection and environmentally sound use; and for the study and development of traditional management systems.

Means of Implementation/Resource Requirements

113. Relevant United Nations Agencies, donor community and development agencies could adopt a funding coordinating mechanism to assist all coastal States to build national and regional capacities for ocean and coastal areas management.

[C.1 HIGH SEAS]

Human Resources

(To be completed)

Scientific and Technical Infrastructure

(To be completed)

Financing and Costing

(To be completed)

[C.2 NATIONAL JURISDICTION]

Human Resources

114. The regional bodies could develop multidisciplinary training and research on marine living resources, particularly in social and economic sciences as well as in the use of geographical information systems.(25(b))

115. A framework to support artisanal fisheries and small-scale use of living marine resources and, in developing countries, subsistence fishermen could be developed at national and regional levels and encourage equitable participation of women and indigenous peoples.(29)

116. Countries could integrate small-scale fisheries development in coastal zone planning, and create and encourage representation of fishermen and communities in planning management bodies.(29(a))

117. Countries could encourage for community-based users, including traditional coastal communities, women's groups and minorities/indigenous people, increased rights and responsibilities for management and enforcement [on fishing and non-fishing concerns including eco-tourism]; allocate marine resources equitably among small-scale, large-scale and sport fisheries [providing priority for the subsistence of minorities/indigenous peoples] ; and set a system for small-scale fishworker rights.(29(b))

(B) Scientific and Technical Infrastructure

118. Countries could implement the FAO/ICES Code of Practice for Consideration of Transfer and Introduction of Marine and Freshwater Organisms and regional bodies could transfer available safe technologies and establish cooperative programmes with national centres.(26(c))

119. Improving seafood quality [and fisheries based industrialisation including deep-sea fishing for developing countries, in particular it] will be crucial for promoting trade and meeting social goals linked to nutrition and health.(27)

120. Countries could agree on global quality assurance systems in order to improve consumer confidence and maximize economic returns.(27(a))

121. Countries with the assistance of FAO could develop programmes to improve handling and processing, reducing post-harvest losses and discards.(27(b))

122. Coastal States could strengthen environmentally sound artisanal and subsistence fishing activities, collaborate with traditional coastal communities for the elimination of unsound ones and strengthen training and extension services in coordination with rural agriculture services together with appropriate financing mechanisms.(29(c))

#### Financing and Costing

123. Development agencies and donors should provide technical and financial support through regional organisations.(28(a))

124. Countries could utilize development funding for habitat management [and for action oriented research projects to immediately address prevailing problems].(24(c))

125. FAO should assist countries to develop a program for transfer of management methods and environmentally sound fishing technology, particularly for small scale fishing and for the protection of resources with low resilience (marine mammals, sharks), [and trade in tropical fishing for the aquarium business as well as trade in corals.](24(d))

#### D. ADDRESSING CRITICAL UNCERTAINTIES [FOR OCEAN MANAGEMENT] AND CLIMATE CHANGE

##### Basis for action

126. The cornerstone for protecting the oceans and coastal areas and for providing rational use and development of their living and non-living resources is the ability to determine the present state of systems and predict future conditions. Effective management of oceans and coastal areas is often stalled by the high degree of uncertainties in present information. This limits the ability to make predictions and assess environmental change. In order to rationally manage the marine and coastal environment and its resources in accordance with international law, we need to develop the ability to predict natural and man-induced changes in marine and coastal ecosystems. Accordingly, it is necessary to restructure the mechanisms for generating and disseminating information based on the results of research and monitoring activities. Research, systematic observation and monitoring information generated must be correctly communicated to all levels of the management structure and the public.(69)



127. There are many uncertainties about climate change and [particularly] sea level rise. Small changes in sea level rise have the potential of causing significant changes to small island States. Response strategies should be based on sound information [data]. A long-term co-operative research commitment [based on differentiated responsibilities of countries] is needed to reduce this great uncertainty. Meanwhile, precautionary measures should be initiated to diminish the risks and effects, particularly on small islands, low-lying States and coastal zones of the world.(70)

#### Objectives

128. States acting individually and through appropriate regional and international fora agree:

- (a) To conduct scientific research on, systematic observation and monitoring of the marine environment, within and beyond the limits of national jurisdiction.
- [(b) To provide full and open sharing of data and information resulting from scientific research and monitoring.]
- (c) To develop standard intercalibrated procedures, measuring techniques, and data storage capabilities for scientific research on and systematic observation and monitoring of the marine environment.
- (d) To provide improved forecasts of marine conditions for safety and efficiency of maritime operations, and inhabitants of coastal areas.

#### Activities

##### Management-related activities

129. Sections 1, 2, 3, and 5 of this paper address management priorities for specific resources. In conjunction with those, coastal States should adopt special measures to cope with potential climate change and sea level rise. Of utmost priority is the need to develop globally accepted methodologies for coastal vulnerability assessment, modelling and response strategies particularly for priority areas, such as small island, low-lying States and critical coastal areas.

130. Coastal countries with the cooperation of relevant United Nations Agencies could establish research priorities to address critical uncertainties for ocean and coastal area management. They could identify on-going and planned programs of systematic observation of the marine environment, with a view to integrating activities and establishing priorities. Research priorities include:

- (a) Living resources potential, optimal fishing regimes and acceptable levels of exploitation including the species life cycle and migration to identify critical areas and life stages.
- (b) Fate and effect of all forms of chemical pollution, toxic phytoplankton blooms in coastal ecosystems.
- (c) Human health related to consumption of fishery products from marine and coastal ecosystems.

- (d) Development of appropriate and new marine technologies to utilise under-exploited resources, for aquaculture, food processing and for pollution control including marine environmental accountancy as a management tool.
- (e) Response of critical or sensitive marine ecosystems and rehabilitation strategies of degraded areas relevant for coastal sustainable development.(76)

#### Data and Information

131. Improved systems to collect, synthesize, and disseminate data and information on coastal and marine systems are essential to reduce uncertainties and improve predictability. The Global Ocean Observation System (GOOS) of the IOC is being designed to provide some of the required information. An effective system must contain more elements than GOOS. States and relevant international organizations should provide analyses into appropriate international data networks. Specifically, States should:

132.

- (a) Support development of the multi-parametric cross-disciplinary global ocean systematic observation of nearshore and coastal areas to build an understanding of climate change, e.g. GOOS (Document A/CONF.151/PC/70.)(74(c))
- (b) Create regional accessible and readily-transferred multi-sectorial information bases, covering the results of research and systematic observation programmes, linked to existing data and information services and mechanisms for communicating these results to decision makers (including environmental managers) and the public in general.(72)
- (c) Endorse the storage and archiving of, as well as [access] [exchange of] to, data and information collected in marine scientific research and systematic observation programs through the World Data Centers.

#### Capacity Building

133. Recognizing the need to acquire new information on oceans to address all marine-related management topics, including climate change, nations agree to:

- (a) Establish funding mechanisms for an inter-disciplinary systematic observation system through coordination among United Nations Agencies and development agencies including a programme on marine technology and engineering and to help ensure implementation of on-going and planned global and regional ocean climate-related research programmes.(73)
- (b) Offer technical cooperation, with the participation of relevant international organizations, in developing the capacity of coastal States to carry out and participate in research and monitoring, as well as to assimilate its results.

(iv) International and Regional Cooperation and Coordination.

134. Relevant United Nations Agencies should develop and integrate [monitoring] and systematic observations networks and establish high-level inter-agency coordination and monitoring and systematic observation mechanisms. This would include a comprehensive review of existing national, regional and global data bases. These activities would involve as appropriate:

- (a) Mechanisms to develop comparable and compatible techniques, validation of methodologies and measurements, regular scientific review, agreed formats for presentation, including Geographic Information Systems and storage, and communication of the information gathered to potential users.
- (b) Systematic observation and monitoring of coastal habitats, inventories of marine pollution sources and fisheries statistics.
- [(c) Assurance that the GOOS contains capability to systematic observation monitor coastal as well as deep ocean features such as sea level changes and pollution.]
- (d) Better representation of agencies dealing with the marine environment (IOC, IMO) in United Nations-wide coordination efforts.
- (e) Better coordination of international and coastal and marine programmes
  - (i) Consider the development of improved relationships among the relevant international organizations (UNEP, UNESCO, IOC, WMO, IMO, FAO, IAEA, UNLOS secretariat, IAEA), including strengthening ICSPRO, the Inter-Secretariat Committee on Scientific Programs Related to Oceanography.

135. Develop and integrate regional [monitoring] [systematic observation] programmes into the UNEP Regional Seas Programmes which would contribute to the implementation of global ocean and coastal observing systems. The long-term systems should be based on the principle of [full and open] exchange of data. Monitoring should be capable of predicting the effects of climate related emergencies on existing physical, socio-economic coastal infrastructure (e.g. human settlements, industries, tourism, communication, ports and aquaculture). Site-specific analysis of sea level rise effects and temperature elevations on sensitive coastal ecosystems and lagoons and economically important species will also be necessary.(75)

#### Means of Implementation/Resource Requirements

TO BE FURTHER DEVELOPED.

- (i) Human Resource Development
- (ii) Scientific and Technological Infrastructure Development
- (iii) Costing and Financing

#### E. STRENGTHENING INTERNATIONAL, INCLUDING REGIONAL, COOPERATION AND COORDINATION

Basis for action

136. In order to effectuate the strategies and activities as elaborated upon in the other Programme Areas with respect to oceans [and coastal areas] and to ensure the integration of environment and development aspects, existing institutional arrangements at national, regional and global level need adjustment and strengthening. There are numerous global and regional institutions with competence in marine issues. A comprehensive convention and a number of other legal instruments deal with the various aspects of ocean [and coastal] affairs. With increasing attention to issues relating to the oceans [and coastal areas], it is important that Governments be able to consider interrelated problems as a whole, and thus identify important issues.

priorities and strategic planning needs, promote intra- and interregional cooperation, and mobilize funding building upon existing mechanisms within the United Nations system, there is a need to ensure the existence of regular and effective intergovernmental discussion and mechanisms for coordination among the relevant agencies and bodies concerned with ocean [and coastal]-related activities, particularly in environment and development aspects.

137. Similarly attention is required to intergovernmental and intersecretariat cooperation and coordination are needed at the regional level, where a number of bodies already exist both within and outside the United Nations system.

138. The United Nations Convention on the Law of the Sea contains a comprehensive global framework and lays down basic rights and duties relating to environment and development activities with respect oceans. Acceptance of these rights and duties and other relevant international agreements forms an important basis for international coordination and cooperation. Within this framework, wider acceptance of related conventions could also enhance international cooperation and ensure their coherent and harmonized development.(55)

139. Settlement of disputes, [such as on trade and environment, should be dealt with in appropriate bi-lateral, regional and international fora, e.g. GATT. In accordance with established international rules and dispute settlement agreements Exhaustive and full use of expertise available in major international organization shall be made.][should be dealt with in appropriate bilateral, regional and international forum in accordance with multilateral standards to be agreed upon, givin due consideration to concerns on sustainable development. Exhaustive and full use of expertise available in relevant international organisations should be made. Pending enactment of such standards, States should refrain from taking unilaterally non tariff measures to protect a given marine resource.]

140. Governments participating in various international fora often represent the interests of different national sectors. In ocean-related fields, where all issues are closely interrelated it is essential that each Government integrate sectoral interest.(56)

#### Objectives

- 141.
- (a) Ensure, at the regional and global level, consistency among and integration of the various sectoral activities in addressing environment and development matters with respect to oceans [and coastal areas], including those covered in the other programme areas on oceans in Agenda 21.
  - (b) Ensure that, within the United Nations system, there is opportunity for regular intergovernmental review and consideration of environment and development matters with respect to oceans [and coastal areas] as a whole, and the agreed principles, strategy and standards.
  - (c) Ensure that there is effective information exchange and, where appropriate, institutional linkage between regional institutions dealing with environment and development matters with respect to oceans [and coastal areas].

- (d) Ensure the effective operation of coordinating mechanisms for the components of the United Nations system dealing with environment and development matters with respect to oceans, and other concerned organizations including links with donor and assistance agencies.

Activities

Management

142.

(a) Global

(i) [The United Nations General Assembly should] ensure regular consideration [within the United Nations System] at intergovernmental level of general ocean [and coastal] issues [environment and development matters with respect to oceans] and request the Secretary-General and Executive Heads of United Nations agencies and organizations to strengthen consultative and coordinative mechanisms for this purpose.

(ii) Introduce special arrangements to ensure the participation of all relevant international organizations, including the development and donor agencies;

(iii) Seek scientific advice and consider the use of advisory expert groups [expert groups], as needed;

(iv) Establish reporting arrangements as between the General Assembly and the governing bodies of the United Nations system;

(v) Strengthen consultative and coordinative arrangements within the United Nations system and particularly IOC, UNEP and UNDP, including their regional components, in support of the General Assembly forum and other intergovernmental meetings with broad mandates in ocean [and coastal] affairs.

Regional

143.

(i) Strengthen existing intergovernmental regional cooperation, particularly the Regional Seas Programmes of UNEP, and establish or designate regional, intergovernmental fora where needed, for consultations on questions of harmonizing policies and integrating cooperative activities taking account of environmental circumstances, regional priorities and levels of development;

(ii) Introduce arrangements for the participation of all relevant organizations and bodies, development assistance and donor agencies, as well as of the private sector;

(iii) Ensure collaboration and coordination among all relevant institutions active in a region, including adequate staff representation;

(iv) Arrange within intergovernmental regional cooperation for periodic interregional consultations in support of those conducted at the global level.

Data and Information Capacity Building

144.

(i) Provision of special assistance to States, on request, to improve their capacity to implementing the principles laid down the Law of the Sea Convention and other relevant instruments, including the implementation of the marine scientific research regime as a management tool;

(ii) Development of a central reference point for information on and access to legislation as well as for advice on legislative and related institutional measures for the implementation of legal agreements.

(iii) Preparation of overview reports, to include also identification and examination of general issues, and preparation of summary reports on all United Nations system planning in the oceans [and coastal] sector, incorporating also related activities outside the United Nations system.

(iv) Through system-wide consultations, preparation of agendas and supporting documentation on the following matters;

(a) General policies and planning and identification of priority areas for coordinated effort, with particular emphasis on promotion of integrated marine and coastal area management and national capability-building requirements;

(b) Review and assessment of impediments to implementation and enforcement of global and regional agreements, including their institutional aspects, and of all developments affecting the progressive development of relevant international law, with particular attention to the development of liability regimes and dispute settlement mechanisms;

(c) Review of assistance to developing countries and modes of facilitating collaboration with development assistance and donor agencies, non-governmental organizations and the private sector.

RESOURCES REQUIREMENTS/MEANS OF IMPLEMENTS

Human Resources Development  
Scientific and Technological Infrastructure Development  
Costing and Financing

(TO BE DEVELOPED)

[G. HUMAN RESOURCE DEVELOPMENT FOR OCEAN [AND COASTAL] MANAGEMENT.  
To be developed]

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PREPARATORY COMMITTEE FOR THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND DEVELOPMENT

Third Session

Geneva, 12 August-4 September 1991

Working Group II

Agenda item 2

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

Options for Agenda 21

Programme areas:

MANAGEMENT OF HIGH SEAS: LIVING MARINE RESOURCES and  
SUSTAINABLE USE OF LIVING RESOURCES UNDER NATIONAL JURISDICTION

Proposal submitted by Algeria, Colombia, Chile, Mexico, Sweden, Uruguay and Venezuela

For the division of Marine Living Resources, taking into account amendments suggested by delegations as registered in A/CONF.151/PC/WG.II/L.18, into two programme areas, as originally proposed in A/CONF.151/PC/42/Add.6, which are "Management of High Seas: Living Marine Resources" and "Sustainable Use of Living Resources Under National Jurisdiction".

## MANAGEMENT OF HIGH SEAS MARINE LIVING RESOURCES

### Basis for action

59. While high seas fisheries contribute to the effective utilisation of resources and to the world supply of protein, management performance on the high seas, has not infrequently been unsuccessful and many resources are overfished. [Management performance on the high seas has not always been successful and several types of resources are overfished. In a number of high seas areas, the provisions of the United Nations Convention on the Law of the Sea (UNCLOS) are not being implemented as intended. [There are problems of unregulated fishing, vessel reflagging to escape controls, fishing practices such as large-scale pelagic drifting and overfishing, lack of surveillance, control and enforcement and, in general, lack of the required cooperation with other States.]

### Objectives

62. Fisheries [must] be managed through ecosystem, multi-species management approaches on the basis of sustainable ecologically sound practices consistent with the best available scientific information, and must be effectively monitored and enforced, in order to ensure conservation and promote optimum utilization of the living resources.

63. Ecosystem and multi-species approaches must be developed and implemented to preserve the biological diversity and productivity of marine species and maintain the ecological relationships among populations of such species.]

66. Selective fishing gear and practices should be used to [avoid] [minimise] significant waste of catch of target populations of marine species and the significant bycatch of non-target species.

66bis. The full implementation of General Assembly Resolution 44/225 on large-scale pelagic drift-net fishing.]

69. [On the high seas, States fishing a stock which straddles the 200 mile limit of a coastal State, for 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]. High seas fishing [must] not have an adverse impact on the resources under the jurisdiction of coastal States.]

70. Over the next few years, effective regional and international mechanisms and strategies should be developed and implemented where appropriate, through cooperation between high seas fishing states, coastal states and relevant international organizations and existing regional and international mechanisms should be reinforced where appropriate to:

- a) Conserve and make full sustainable use of the living marine resources of the high seas, and to improve the status of those which are depleted.
- b) Define and identify management units based on large marine ecosystems concepts.
- c) Provide for the negotiation of appropriate international agreements.
- d) Establish appropriate exploitation regimes for stocks whose life cycles encompass both the high seas and EEZ's.



Activities

General

72. [Assessment] [Promotion] of fishing methods to minimise adverse impacts of fishing on target and non-target species, other users and marine ecosystems.]

72. Assessment of fishing methods and banning of unsustainable fishing techniques, such as large scale pelagic drifnet fishing in accordance with General Assembly 44/225, in order to minimise adverse impacts of fishing on target and non-target species, other users and marine ecosystems.]

73. Development and sharing of analytical and predictive tools such as stock assessment and bioeconomic models to assist in risk management and decision-making.

74. [Cautious handling of] [Harmonizing with] all situations dealing with risk, uncertainty and irreversibility.

75. Integration of environmental factors in management.

76. Acquisition of all the data, current and historic, necessary for effective management of fisheries resources including data on catch and effort, by-catch and the impact of the fishing on other users and the marine environment.

77. Promotion of regional fisheries management bodies [to cover the gaps in the existing coverage of the world's oceans].

81. [Marine mammals. Continuing consultations.]

[- Affirm the validity of the 1972 U.N. Conference recommendation that there should be a 10 year moratorium on Commercial Whaling and call for its full implementation by extending the present moratorium on commercial whaling until 1995/96.

- Welcome the IWC report on small cetaceans and urge IWC to continue to strengthen this work and governments specifically concerned to act promptly on the recommendations of the IWC's Scientific Committee on this issue.

- Call for an international conference with the widest possible participation to be convened by 1995 to review the international machinery for the protection of all cetaceans, and to consider the most effective means for providing cetacean research, conservation and management into the 21st century.]

[Support the International Whaling Commission in its efforts to ensure proper and effective conservation and development of large whale stocks.

Same efforts for conservation of other depleted or endangered marine mammals should be made by countries and appropriate international bodies.]

- (1) Acknowledge the principles of sustainable use in all dealings with marine mammals resources, and recognize the special needs of developing countries and indigenous peoples of the marine resources of their nutritional and economic development.
- Support the IWC in its efforts to restore stocks of highly migratory species of whales and call for increased scientific research and advice to fulfil this effort.
- Support scientific research on small cetaceans with the aim of ensuring national and regional conservation of these species.
- Support the Bonn Convention in its efforts to promote the establishment of regional agreements on management and conservation of small cetaceans.
- Call on the governments to review and strengthen all possible efforts to counteract pollution threats to all marine mammals.]

32. [Polar regions and specific seas]

[Delete]

[The Antarctic Treaty Parties that singling out Antarctica to be identified as a specific regional issue for consideration by UNCED is inappropriate for the following reasons:

-The Antarctic Treaty provides a tried and tested basis for managing activities in Antarctica.

-In the carefully drafted GA Res. 44/228, neither Antarctica nor any other specific region has been identified as one of the UNCED priority areas.

-UNCED already has a hardly manageable workload; identifying specific regions for priority action within the proposed Agenda 21 would open the doors to unravel a carefully negotiated settlement on priority issues and areas as contained in Res. 44/228.

Consistent with this approach therefore, the Treaty Parties will oppose the inclusion in a possible Agenda 21 of specific references to Antarctica such as those contained in a in paragraphs 18, 20 and 34 of Doc. PC/42/Add.6, or as proposed by some distinguished delegates in the course of our debate.]

[In the Polar regions, through U.N. involvement to improve and introduce the anticipatory approach and adopt and implement an Antarctic Conservation Strategy, the Arctic Environment Protection Strategy and promote the Arctic Monitoring and Assessment Programme.

The following elements should be included:

-To establish a sanctuary for all cetaceans in its traditional natural habitat.

-Call upon the ATCP to protect and improve the status of living resources in the Antarctic region, including marine ecosystems and report regularly to the United Nations on its status through the General Assembly.

In relation to Maintenance of Ecosystem and Marine Biodiversity the following elements should be included:

(a) Call for efforts to prevent overfishing including the banning of prospecting and mining in Antarctica so as to ensure the protection of its environment as for the benefit of all mankind.

(b) Call for the establishment of a nature reserve or World Park in Antarctica which constitute an integral part of the global commons.

In relation to Strengthening International Institutions and Legal Instruments, the following elements should be included:

- To establish a United Nations sponsored station in Antarctica with the view to promoting coordinated international cooperation in scientific research for the benefit of mankind, particularly the importance of Antarctica to the global environment and ecosystems, as well as an early warning system on climate change and accidents.
- Call for the widest possible participation of the international community to review and negotiate a comprehensive convention on the Conservation and Protection of Antarctica.]

Management Related

86. States [must] effectively monitor and control fishing activities of their nationals vessels and crews thereof to ensure the conservation of the resources, compliance with applicable conservation and management rules, complete and accurate reporting of catches and effort, and [avoidance]/[minimisation] of incidental catch.

87. States [must] ensure that vessels authorized to fly their flag comply with the [applicable] conservation and management rules adopted by competent international [or regional] organizations or where no such organization exists, through other [international] arrangements.

88. States [must] establish penalties under domestic law, and take legal action against their nationals, vessels and crews thereof, for any violation of [applicable] rules adopted by competent international [or regional] 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.

89. States whose nationals or vessels fish in the same area of the high seas [must] cooperate to establish international [or regional] 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.

90. [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].

91. In areas of the high seas where a management regime has been agreed within the framework of a [competent international [or regional] 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.

92. [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. (high seas fisheries (must) not be directed toward the stock when the stock is fully utilized by the coastal state within its exclusive economic zone].

93. [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 adverse impact on the resource within that zone].

#### Data and Information

94. The transparency of high seas fishing activities (must) be ensured. States (must) make available to appropriate international [or regional] organizations all relevant data relating to catches on the high seas. The relevant international [or regional] organizations should establish appropriate monitoring programmes including the standardized collection of scientific data and the deployment of scientific observers.

#### Global and Regional Cooperation and Coordination

95. The international community should strengthen capacities for collaboration between regional and global [international] fishery bodies (dealing with conservation and management of the oceans and seas. That the United Nations Environment Programme Regional Seas Programme should be strengthened and the following action should be taken:(20)

- (a) Relevant UN or other international Agencies should develop guidelines for better implementation of the Law of the Sea Convention (UNCLOS). FAO should prepare technical guidelines on responsible fishing in the high seas.
- (b) Countries together with relevant international fisheries organizations and UN Agencies should establish programmes and special agreements to protect endangered species and stocks and to establish appropriate exploitation regimes for all stocks and species including those whose life cycles encompass both the high seas and EEZs. [This should include banning unsustainable fishing techniques and practices and restriction of less sustainable techniques and practices.] [Delete.]

96. Relevant UN bodies and other international agencies could develop collaborative technical and research programmes to improve understanding of species life cycles and migration, identifying critical areas and life stages.(21)

- (a) Countries with the assistance of relevant UN and other international Agencies and non-governmental organisations, could identify linkages between EEZs and high seas resources and could develop further the concept of large marine ecosystems and its potential for practical application in ocean management regimes.
- (b) FAO and other international agencies should assess resources potential, optimal fishing regimes and acceptable levels of exploitation and develop reliable international monitoring, control, surveillance and enforcement systems.]

- (c) Regional fisheries bodies should link information systems which have part of the high seas ecosystem under their responsibility and inventory all stocks (target and non-target) in order to set up rehabilitation measures where appropriate.
- (d) GATT assisted by the FAO, should strengthen international technical cooperation mechanisms in relation to high seas stock-commodities with a view to identifying and eventually eliminating inappropriate trade barriers and assisting in preventing the evasion of international management regimes.

[96bis. States should develop multilateral standards dealing with the interlinkages between trade and the protection of living marine resources, taking into account concerns on sustainable development.]

#### Means of Implementation and Resource Requirement

##### Human Resources

(To be completed)

##### Scientific and Technical Infrastructure

(To be completed)

##### Financing and Costing

(To be completed)

## D. SUSTAINABLE USE OF LIVING MARINE RESOURCES UNDER NATIONAL JURISDICTION

### Basis for action

58. The conservation and management of marine living resources should take place on the basis of sustainable utilization. This is of social, economic and nutritional importance, and contributes to national food security, not least to developing countries and indigenous peoples. The special status of indigenous peoples should be recognized including their rights to utilization and protection of their habitats on a sustainable basis.

60. World oceans yield about 80-90 million tons per year, 95% of which comes from EEZs. They provide healthy food and livelihoods to millions of people in coastal areas. However, many countries continue to face mounting problems related to implementation of their rights and obligations under UNCLOS, including local overfishing, (poor management performance), unauthorized incursions by foreign vessels, ecosystem degradation, increased stock fluctuations, overcapitalization, excessive fleet sizes, inefficiently selective gear, unreliable data bases and inadequate information about their resource base, increasing competition between artisanal and industrial fishing and between fishing and other types of activities. (22)

61. Problems extend beyond fisheries. Coral reefs and other largely tropical coastal habitats such as seagrass communities, mangroves and estuaries among the most highly diverse, integrated and productive of the earth's ecosystems. They often serve important ecological functions, provide protection from hazards of the open sea, and are critical natural resources for food, energy, and economic development. In various parts of the world such coastal and marine systems are under stress or threatened due to factors ranging from local cultural practices to changes in sea temperature and or sea level.

### [Objectives

71. The objective would be to build national capacity over the next 10 years to make full sustainable use of the EEZs.(23)

### General

64. [States must] [States in accordance to their national legislation and policies could] ensure as far as practicable that human activities do not result in the decrease of any population of marine species with special attention to marine mammals and sea turtles, below a level at which its recruitment is stable, but preferably not below a level close to that which ensures the greatest net annual increment; populations of marine species that have been depleted by harvesting should be restored to these levels.

65. Data and information [must] [should] be obtained [by States with the cooperation of international organisations], including verifiable catch and effort statistics, on the commercial harvesting of populations of marine species, including by-catch, adequate to reliably assess and predict the effects of such harvesting.

66. Selective fishing gear and practices should be used to [avoid] [minimise] significant waste of catch of target populations of marine species and the significant bycatch of non-target species.

67. States should ensure that each population of marine species that is the target of fishing [exploitation] activities is harvested in areas and at the stage of its life cycle that ensures maximum economic efficiency, consistent with these principles.]

68. Fish (marine species) for human food, should take priority over other uses, and the amount available for human food should be increased by avoiding wastage and improving techniques of capture (harvest, handling and transportation.)

### Capacity Building

83. Each coastal country could establish:

- a) A unified policy framework and intergovernmental mechanisms for coastal management and marine resources management through a permanent consultation between the decision makers and the users.
- b) Procedures to involve the coastal communities the academic and private sector in the development and implementing programmes.(64)

84. Member States could create an interministerial mechanism, within the national planning and development bodies, for policy-making and long term planning on oceans and coastal areas. The main tasks could include the following:

- a) Rationalize and/or coordinate sectoral responsibilities for oceans and coastal areas within governments and establish a reviewing mechanism to up-date and enforce relevant national legislation to ocean management and coastal development.
- b) Establish advisory bodies for broad consultation to stimulate participation with local administrations, the business community, the academic sector, user groups and the general public.
- c) Include institutional capacity building in agreements between development aid bodies and developing country institutions.(66)

85. Relevant regional agencies could assist coastal countries in improving the scientific, technological, professional and related institutional capacities.

- a) Identify existing capabilities and existing facilities within the countries of the region; determine the needs of human resources, the scientific and technical infrastructure required, and potential for expansion in regional marine and coastal areas research, training, management and technologies.
- b) Establish and maintain regional centres capable of assisting countries in analysing information and assessing the principal environmental problems, in reinforcing surveillance and implementing environmental impact assessment and monitoring programmes with predictive capabilities.
- c) Prepare national and regional contingency and emergency plans, standard techniques for monitoring species and habitats and develop geographic information systems for spatial planning in coastal areas. To establish the appropriate legislation to protect the marine and coastal ecosystems.
- d) Create special programmes to assist island States to integrate environment and development in the planning process for their limited areas and resources.
- e) Establish programmes on marine environmental education and enhance public awareness of the role of the marine environment for society.(68)

### Management Related

97. Coastal states could establish systems to regulate access through licensing, explicit user's rights, limited entry, space allocation, closure zones and economic instruments; and domestic and

international collaborative mechanisms on issues related to migratory fish [and long range fleet monitoring and control.]

98. Coastal States could strengthen environmentally sound artisanal fishing technologies, collaborate with traditional coastal communities for the elimination of unsound ones, and strengthen training and extension services in coordination with rural agriculture services together with appropriate financing mechanisms.

99. Coastal States could ensure that, in their negotiation and implementation of international agreements on the conservation of living marine resources, indigenous peoples are represented and their interests in particular their right to subsistence, are secured.

#### Data and Information

100. Coastal states together with UN and other international agencies could complete/update living resource and critical habitat inventories of EEZ's, at national and regional levels (coastal wetland, mangroves, seagrass beds, etc.) and develop legislation to protect them. FAO could develop methodologies to improve assessments in data-limited situations for the analysis of interactions between sectors and management under uncertainty.(25(a))

101. Coastal States could establish and improve data collection systems, and, when appropriate, provide the necessary data to regional and global fisheries bodies.

#### Capacity Building

102. National policy, legal and regulatory frameworks could be completed with the assistance of relevant international organizations looking toward improved enforcement capacity, investment and financing including joint venture agreements, regulation of access, enhancement of small-scale fisheries, the improvement of seafood quality and rationalisation of trade.(24)

103. Information systems, training and management-oriented research programmes could be implemented to provide a framework incorporating the ecosystem management approach at the national and regional level.(25)

104. Mariculture and coastal aquaculture potentials could be developed. National analyses for potential mariculture, coastal aquaculture (areas, species and methodologies) and other improvements e.g. artificial reefs, in each developing coastal country could be developed within ten years within a framework of Integrated National Planning.

105. Coastal States could take steps to enhance the productivity and utilization of their marine living resources in terms of food production and income production from food products, pharmaceutical products, and recreational, cultural and aesthetic uses.

106. Coastal states could develop systems for the recognition, recording and application of community based traditional knowledge concerning marine resources and ecosystems and incorporate them into modern management systems in collaboration with the people and community concerned.(29(d))

#### Global and Regional Cooperation and Coordination



107. Relevant UN and other international agencies should assist coastal countries to complete their legal and policy frameworks in line with UNCLOS, as well as to improve management methods including control and surveillance and provide assistance to developing countries for research and development of economic uses of marine living resources. They should prepare guidelines for [responsible] [environmentally sound] fishing with a view to reduce wastes, protect endangered species, reduce pollution [from fishing] and improve fishing gear efficiency and selectivity. [They should also provide for the transfer of environmentally sound technology to developing countries to develop their fisheries, and to replace fishing practices identified as harmful to marine species.] [As related to fishing practices which become harmful to marine species because of significant ways of catch or significant bycatch of non-target species, in relation to the development of new technologies, new standards should be reached through international agreements. These agreements will provide for the transfer of the new environmentally sound technology to developing countries and the provision of new additional funds for its implementation.] (24(a))

108. Relevant UN and other international agencies should prepare a set of guidelines for potential application of a precautionary approach to living resources management, the concept of the Marine Catchment Basin for enclosed seas, as well as the ecosystem management approach and "large marine ecosystems" concepts, including the practical implications and applications. (25(c))

109. FAO should prepare guidelines for [responsible and] environmentally sound intensive aquaculture to reduce environmental impacts and develop plans for basic, strategic and applied research especially on rural aquaculture. (26(b))

[109bis. States should develop multilateral standards dealing with the interlinkages between trade and the protection of living marine resources, taking into account concerns on sustainable development.]

110. The international community should develop/improve markets to promote direct human consumption of fish and to enhance the contribution of subsistence fisheries. (27(c))

111. Relevant UN Agencies should establish a methodology to assess the nutritional and health impacts of fishery policies and projects. (27(d))

112. Relevant United Nations programmes and agencies could provide to traditional coastal communities of indigenous peoples and, in developing countries, to subsistence fishermen [fisherfolk] the technical and financial assistance to organize and maintain global networks for the exchange and improvements of traditional and scientific knowledge of marine resources, their protection and environmentally sound use; and for the study and development of traditional management systems.

Means of Implementation/Resource Requirements

113. Relevant United Nations Agencies, donor community and development agencies could adopt a funding coordinating mechanism to assist all coastal States to build national and regional capacities for ocean and coastal areas management.

## Human Resources

114. The regional bodies could develop multidisciplinary training and research on marine living resources, particularly in social and economic sciences as well as in the use of geographical information systems.(25(b))

115. A framework to support artisanal fisheries and small-scale use of living marine resources and, in developing countries, subsistence fishermen could be developed at national and regional levels and encourage equitable participation of women and indigenous peoples.(29)

116. Countries could integrate small-scale fisheries development in coastal zone planning, and create and encourage representation of fishermen and communities in planning management bodies.(29(a))

117. Countries could encourage for community-based users, including traditional coastal communities, women's groups and minorities/indigenous people, increased rights and responsibilities for management and enforcement [on fishing and non-fishing concerns including eco-tourism]; allocate marine resources equitably among small-scale, large-scale and sport fisheries [providing priority for the subsistence of minorities/indigenous peoples]; and set a system for small-scale fishworker rights.(29(b))

### (B) Scientific and Technical Infrastructure

118. Countries could implement the FAO/ICES Code of Practice for Consideration of Transfer and Introduction of Marine and Freshwater Organisms and regional bodies could transfer available safe technologies and establish cooperative programmes with national centres.(26(c))

119. Improving seafood quality [and fisheries based industrialisation including deep-sea fishing for developing countries, in particular it] will be crucial for promoting trade and meeting social goals linked to nutrition and health.(27)

120. Countries could agree on global quality assurance systems(27(a)) in order to improve consumer confidence and maximize economic returns.

121. Countries with the assistance of FAO could develop programmes to improve handling and processing, reducing post-harvest losses and discards.(27(b))

122. Coastal states could strengthen environmentally sound artisanal and subsistence fishing activities, collaborate with traditional coastal communities for the elimination of unsound ones and strengthen training and extension services in coordination with rural agriculture services together with appropriate financing mechanisms.(29(c))

## Financing and Costing

123. Development agencies and donors should provide technical and financial support through regional organisations.(28(a))

124. Countries could utilize development funding for habitat management [and for action oriented research projects to immediately address prevailing problems].(24(c))

125. FAO should assist countries to develop a program for transfer of management methods and environmentally sound fishing technology, particularly for small scale fishing and for the protection of resources with low resilience (marine mammals, sharks), and trade in tropical fishing for the aquarium business as well as trade in corals. (24(d))

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## FRESHWATER

### SUMMARY

Freshwater was, by and large, not a contentious issue at PrepCom III. There was general agreement that the Mar del Plata Action Plan provides a still valid basis for actions which need to be taken. The main contentious point which was common to consideration of all issues was that developing countries were adamant that unless financial resources, technology transfer and other means of implementation were specifically laid out, they could not approve the proposed freshwater programme. Malaysia's insistence on reference to Antarctica ("potential sources of freshwater") in Agenda 21, was systematically rejected by the Antarctica Treaty Consultative Parties.

The main Canadian objectives were achieved. The revised Freshwater chapter of Agenda 21 emphasizes the need to identify mechanisms for implementing, coordinating and funding all activities, including at the international level. The need for women and indigenous peoples to participate in policy and decision making at the local, national, regional and international levels is also recognized. Despite India's attempt to decouple the International Conference on Water and the Environment (Dublin, January 1992) from the UNCED process, the final PrepCom documents invite the Dublin Conference to identify options for implementation mechanisms, so that the final stages of UNCED preparations can benefit from the views of the experts in Dublin.

### Documentation

A/CONF. 151/PC/73	-	Background Document
A/CONF. 151/WG.II/L.23/Rev.1	-	Freshwater Resources: Decision
Annex to L.23/Rev.1	-	Revised Draft Options for Agenda 21

### PREPCOM DISCUSSIONS

The Canadian objectives were the following:

- ensure that the need to improve arrangements for water management (at the international, regional, national and local levels) is recognized;

- provide direction to the International Conference on Water and the Environment (ICWE) to be held in Dublin, to ensure that the Conference propose appropriate mechanisms for implementing, coordinating and funding the strategies and action programs which it will present to UNCED;
- through informal discussions, test the acceptability of potential options for improving implementation and co-ordination of water programs;
- ensure that Agenda 21 incorporates the need for participation of women and indigenous peoples in policy and decision making at the local, national, regional and international levels.

Some 50 statements were made by delegates and NGOs in the initial round of discussion, focusing mainly on the options for Agenda 21 document. There was broad agreement on the overall structure of the document and its program themes, which were derived from the review of the Mar del Plata Action Plan recently undertaken by the UN Inter-secretariat Group on water. However, several delegations, including Canada, pointed to inconsistencies between the Agenda 21 document and the document which describes the objectives and structure of the Dublin conference.

Many developing countries stressed that the developmental aspects of water resources management should receive more attention in Agenda 21, and that the absence of discussion on financial resources was a serious omission. Their position was that without the provision of resources, little practical progress in addressing water problems was likely.

Many interventions repeated or confirmed what was already in the document, for example:

- water should no longer be considered a free good;
- integrated water resources management should be the centrepiece of the freshwater chapter in Agenda 21;
- water conservation measures and the reduction of wastes should be encouraged;
- capacity for water resource monitoring and assessment, setting of quality and pollution control standards, and enforcement should be strengthened in many countries;

- capacity building was also required in other areas such as education and training, strengthening of institutional infrastructure, and operation and maintenance of treatment plants and other installations for water use and disposal;
- water supply and sanitation services required further development;
- research and development had to be encouraged in key areas such as low cost sanitation, water conservation technologies, and improved irrigation technologies.

A few countries rejected the freshwater proposals for agenda 21 as being inadequate or on the wrong track. Mauritius stated that the proposals were too academic and should think of the people who would be affected. As an example, the proposal for water pricing was rejected: "if the cost of clean water is raised, then the poor will resort to traditional sources which have been polluted by industrial and other activities". As an alternative to water pricing, it was suggested that taxes be imposed on multinationals operating in countries.

The role of the Dublin Conference was mentioned in many interventions. While some interventions stressed the importance of the Dublin Conference in developing options and recommendations for consideration/endorsement at UNCED, it became clear that the Dublin/Rio process required clarification regarding what Dublin was to achieve. Several delegations, Canada in particular, stressed that the PrepCom should concentrate on ensuring that Dublin propose options for implementing, coordinating and funding the strategies and actions which it will present to UNCED.

Denmark, on behalf of the Nordic group, Sweden in a separate intervention, and the WMO, intervened to raise the issue of the financial status of the Dublin Conference, which is critical. There is an apparent shortfall of funds of some \$ 1 million, or about two-thirds of the projected costs. Individual countries and the UN agencies of the Inter-secretariat Group on Water were asked to make or increase their contributions to the trust fund. Sweden announced its intention to contribute an additional \$ 80 K to the fund.

During the second and third weeks, revisions to the Agenda 21 document were worked on, first in small, voluntary drafting groups and then in informal consultations of the full Working Group. There was initially a fair amount of confusion over what product the group was to draft and what documentation would be submitted to Dublin. Some delegations were concerned that a considerably revised Agenda 21 document prepared basically by the Secretariat should not go to experts at the Dublin Conference before being submitted to delegates at PrepCom IV. As a result, the Working Group took on the task of negotiating the Agenda 21 document during the course of PrepCom III itself, rather than simply giving guidance to the Secretariat to

do this work inter-sessionally. The Working Group also produced a covering decision document, providing guidance to the Dublin Conference and instructing the Secretariat to continue working on the Agenda 21 Freshwater options for PrepCom IV. The initial draft decision document was prepared by the European Community, drawing upon a Canadian draft and was wholly satisfactory to Canada.

The product of the Freshwater drafting group effectively tested the PrepCom III process for Working Group II, in that it was the first to go to informal consultations of the full Working Group. Language not agreed, or not fully developed, at the end of the process would remain in square brackets for PrepCom IV consideration. It quickly became apparent that the drafting group documents would not have a smooth passage. Most of the proposed revisions addressed the points raised during the initial debate described above. Developing countries' concerns about resources to undertake the proposed activities and Malaysia's insistence on including Antarctica, however obliquely, in the Freshwater Agenda 21 were the subject of a lengthy discussion.

The Tunisian delegation stated, on behalf of 28 developing countries, that for Freshwater and all other issues, unless each programme area had a section on means of implementation, clearly identifying the need *inter alia* for new and additional financial resources and the transfer of technology, the entire document would have to be square bracketed. The Malaysian delegation proposed several additions referring to "potential" water sources (i.e. Antarctica) which was resisted each time by the German delegation. Several other proposals required a significant re-ordering of the text, and many interventions had implications for the structure of the Dublin Conference.

At the end of the informal consultations, after laborious negotiation much of the document remained in square brackets and, as with all issues, the critical aspects of financial and technological means to implement the activities remain for PrepCom IV to tackle.

In the final formal meeting of the Working Group, which is normally a straightforward gaveling through of the documents negotiated in the informal consultations, India challenged the role of the Dublin Conference as it relates to UNCED. Citing concern for the proliferation of experts' meetings, and the severe strain on developing countries' capacity to participate, India was intent on keeping the UNCED process as self-contained as possible. Its proposed revisions to the decision document providing guidance to Dublin would, in effect, decouple Dublin from UNCED: Dublin would be invited to "consider" the outcome of PrepCom III and submit a report to PrepCom IV, but would not be invited to identify options or concentrate on any particular aspects, such as implementation mechanisms. Canada opposed the Indian proposals, reiterating its wish to see that the Dublin Conference provide the benefit of focused consideration of the critical issues identified at PrepCom III, so that the product of Dublin would in turn benefit as much as possible PrepCom IV. After private discussions, compromise language was reached. Dublin



is invited to "consider" rather than "review" the products of PrepCom III, and submit its "report on the results of the meeting" rather than its "recommendations" to PrepCom IV; Canada accepted these changes, since the original language inviting Dublin to identify options for mechanisms remained intact.

## OUTCOMES AND ASSESSMENT

The main Canadian concerns are well addressed in the PrepCom III documents. The decision document recognizes the need to develop mechanisms for implementation of Agenda 21, and the importance of the Dublin Conference in the UNCED process. Despite the last minute challenge by India, it contains language inviting the Dublin conference to identify and recommend implementation mechanisms. The revised Agenda 21 document contains strengthened wording regarding the participation of women and indigenous peoples in policy and decision-making at all levels.

Overall, Canada achieved most of its objectives for Freshwater at PrepCom III. The need to improve arrangements for water management at the local, national, regional and global levels was clearly stated in the Canadian intervention and supported by other countries, both in their formal interventions and in informal discussions. Second, Canada successfully influenced the shaping of the PrepCom decision document to ensure that the Dublin conference is asked to identify options for mechanisms for water program co-ordination and implementation. The third objective, testing the acceptability of proposals or options for implementation mechanisms, presented more difficulty. Based on informal discussions with delegates, there is broad agreement on suitable options for mechanisms at the local, national and regional levels. Examples include local water bodies, community involvement, national water agencies and transboundary instruments such as joint commissions and legal instruments such as the ECE Transboundary Water Convention. Mechanisms at the international level, however, raise concerns about creating new institutions.

The matter of the World Water Council was therefore approached with caution. There is noticeable reluctance regarding the creation of new institutions and bureaucracies, and while new mechanisms are not excluded, they must be seen to be responding to an agreed upon and well articulated need. The Nordic countries were aware of the Canadian proposal and, while not ruling it out, indicated that the concept needed further clarification and sounding-out. The Copenhagen and Dublin meetings provide critical opportunities for Canada to test the (fresh)water further, prior to PrepCom IV. A strategy should be developed as soon as possible to take advantage of these fora.

Third UNCED PrepCom  
Working Group II  
14 August, 1991

**CANADIAN INTERVENTION ON FRESHWATER**

**STATEMENT BY TERENCE MCRAE  
CANADIAN DELEGATE**

Mr. Chairman, on behalf of the Canadian delegation, I wish to express our appreciation for the excellent documentation prepared by the Secretariat related to the freshwater issue. We have found the reports under this item to be of interest and value as they identify key areas in which actions are urgently needed to ensure sustainable management and use of the world's water resources.

The delegation would like to offer a number of comments which we feel will help clarify the direction we should be going in on freshwater. These comments relate to the documents prepared by the Secretariat, and secondly, to the upcoming International Conference on Water and the Environment in Dublin, Ireland in January.

Concerning the Secretariat document PC/42/ADD.7, we are pleased to see that links are made among water issues such as sewage treatment and human health, land-use planning and water quality, and capacity building and water resource management; recognition of such linkages is an important prerequisite to managing water resources in an integrated fashion. We are similarly pleased to see that the importance of managing urban water is recognised, in light of the tremendous growth of urban populations expected in the coming years. However, we also have several concerns about the document that I would like to share with you and with other delegates.

First, we feel that the emphasis in the document is perhaps overly skewed toward calling for actions in developing countries to resolve water problems. Although this is certainly where the most pressing problems are to be found, we should not lose sight of the fact that the industrialised countries also need to address their water problems. As an example, paragraph 26, which suggests that countries promote the efficient and equitable allocation of water, is as relevant to the developed countries, where high rates of water consumption occur, as it is to the developing countries.

Second, we feel that while the document identifies actions needed at the national level to resolve water concerns, there is insufficient reference to actions required at the regional and global levels. For example, section F on integrated water resources management focuses exclusively on actions required at the national level. We agree that the primary responsibility for implementing water management strategies rests with national governments, but there is also a need for actions at the regional and global levels which should be elaborated in the document.

A third point is the striking lack of discussion on mechanisms for implementing the actions which are proposed. Paragraph 8 states that the elaboration of such mechanisms will be identified by the Dublin conference, yet Decision 2/20 of the second PrepCom specifically requested that the main elements of an action plan, including an implementation plan, be identified as a basis for Agenda 21. Mr. Chairman, I will come back to this crucial point later.

Fourth, we are pleased to see that document PC/42/ADD.7 makes reference in several areas to the role of women in water resources management. However, we feel that this matter could be afforded more emphasis as the participation of women in water management policy-making and decision-making, at the community level as well as at the national, regional and global levels, is essential.

A fifth observation is that there appears to be some overlap regarding the structure of the Dublin Conference as described in document PC/73, particularly with regard to two of the six themes to be discussed in the Conference Working Groups. The two themes in question are described in paragraph 30 -- "environmentally sound water management" -- and paragraph 32 -- "integrated water resources management". The distinction between these two themes is unclear, and we suggest they be combined into one theme to be called "Integrated Water Resources Management".

Finally, there appears to be confusion between the content of documents PC/73 and PC/42/ADD.7. Not all of the themes identified in one correspond to those listed in the other, creating further uncertainty about the Working Group themes of the Dublin Conference. We suggest that the contents of the papers, and of the Dublin Conference working group themes, be harmonised as follows:

- water resources assessment;
- water & sustainable agricultural development;
- capacity building for water management;
- management of water resources for urban use;
- protection of water quality;
- integrated water resources management.

We raise these points, Mr. Chairman, because we believe it is essential that no uncertainty exist about the structure of the Dublin Conference and the issues it is to address. Furthermore, it is equally important that the PrepCom process and the planning process for the Dublin conference be consistent with one another, given the crucial role of the Dublin Conference in developing the freshwater issue at UNCED in June 1992.

I would like to turn now, Mr. Chairman, to the Dublin conference and to the point made earlier about the absence of discussion on implementation mechanisms. Canada believes the Mar del Plata Action Plan remains an appropriate substantive document

as a basis for global action, as do the program areas identified in document PC/42/ADD.7, but we are concerned about the lack of discussion about how these action plans are to be implemented. Mr. Chairman, our collective experience in developing the Mar del Plata Action Plan, and the review of the Plan recently undertaken by the relevant U.N. agencies, have clearly identified for us what needs to be done. It is now time to identify mechanisms which will ensure that the action plans are implemented.

Accordingly, we wish to ensure that the Dublin conference and UNCED identify appropriate mechanisms for implementing, co-ordinating and funding water programs. At the moment, no organization exists which is responsible for international co-operation in the broad field of water management. Canada feels that a fundamental need exists to improve co-ordination among the players involved in managing freshwater resources, and to catalyze action on strategic issues of concern. Examples include the need for development of a regime for managing water resources among countries, upgrading of basic water resource assessment capabilities in many countries, and co-ordination of research aimed at improving our understanding of the global hydrological cycle and its relationship to the global climate cycle. Effective co-ordination facilitates co-operation, minimizes duplication, promotes a rational allocation of human and capital resources, and ensures that these are targeted where the needs are greatest. Mr. Chairman, we are not proposing that existing functions be usurped, but that they be better co-ordinated and made more effective.

We feel that the development of such arrangements, operating at the global, regional, national and local levels, is essential to the success of the UNCED process for freshwater. This is a lesson we have all learned in our efforts since 1977 to implement the Mar del Plata Action Plan, which was hampered by the lack of mechanisms for co-ordinating and implementing water management strategies and actions. We therefore wish to suggest, Mr. Chairman, that Prepcom III specifically request that the Dublin conference address this matter directly by identifying mechanisms for improving the co-ordination and implementation of a revised Mar del Plata Action Plan, for endorsement at UNCED. We also suggest that any institutional implications emerging from the Dublin conference be considered by Working Group III and integrated into its recommendations.

Mr. Chairman, I would like to briefly refer to two examples which I believe illustrate the importance of developing effective mechanisms for co-operation on water resource management, and which clearly indicate that there are institutional and legal implications involved. The first example is the need for improving the management of internationally-shared water resources, a need which is recognized in paragraph 35 of document PC/42/ADD.7. There are 214 river basins in the world that are shared by two or more countries. Of these, over 60 major international river basins have

no international agreements and 170 are without any sort of co-operative institutional arrangements. Clearly, given the potential for conflicts and disputes over water allocation and use, mechanisms to manage transboundary waters are needed. Such mechanisms could include, subject to the approval of the parties concerned, the creation of joint bodies and the development of regionally-based international agreements to manage shared water resources. Canada and the United States have both benefitted from a long history of co-operation in this area through negotiation of the Boundary Waters Treaty and the Great Lakes Water Quality Agreement, and through the creation of the International Joint Commission and other bilateral mechanisms. Along similar lines, countries of the U.N. Economic Commission for Europe are presently negotiating a framework convention for the protection and use of transboundary waters and international lakes. This convention will encourage the creation of joint bodies for water management purposes.

The second example, which I will refer to only briefly, concerns management of national water resources. It is primarily the responsibility of national or sub-national governments, and of local water bodies, to ensure that water programs are delivered on the ground. We believe that the capacities of national water management agencies should be strengthened, and that local water agencies, based on the watershed unit, be established and or strengthened to improve water management capacity. There is little doubt that many of the past failures in water management have occurred due to a lack of integration of decision-making for all potential users of a basin. Canada's experience with local water bodies indicates that they can facilitate such integration and ensure community consultation. We could similarly think, without too much difficulty, of other mechanisms needed to address global water issues and national and local water problems.

Mr. Chairman, I would like to express my delegation's support to the initiative of the Nordic countries regarding the development of operational guidelines for water resources management in developing countries. I would also like to inform you of Canada's intention to present, in advance of the Dublin Conference, a position paper to stimulate concentration on issues regarded as critical.

Mr. Chairman, the importance of adequate supplies of freshwater to the social and economic development of all nations is well recognised, as is the importance of improving the management of this vital and threatened resource. It should be our objective at this PrepCom to ensure that the Dublin Conference is afforded appropriate direction and support on the road to UNCED.

PROTECTION OF THE QUALITY AND SUPPLY OF FRESHWATER RESOURCES  
APPLICATION OF INTEGRATED APPROACHES TO THE DEVELOPMENT,  
MANAGEMENT AND USE OF WATER RESOURCES

Draft decision proposed by the Chairman

The Preparatory Committee.

1. Welcomes the report of the Secretary-General of the Conference on the Protection of the Quality and Supply of Freshwater Resources (A/CONF.151/PC/73) and the Options for Agenda 21 on freshwater resources (A/CONF.151/PC/42/ADD.7);
2. Requests the Secretary-General of the Conference to submit to its fourth session for further consideration the annex to this decision as contained in document A/CONF.151/PC/WG.II/L.17 as revised during the informal consultations at this session;
3. Further requests the Secretary-General of the Conference to submit to its fourth session for consideration revised Options for Agenda 21, taking into account, inter alia, United Nations General Assembly resolution 44/228, and the debate and the relevant decisions taken at this session, including on the format of Agenda 21 and means of implementation as contained in document A/CONF.151/PC/L.49;
4. Requests the Secretary-General of the Conference to submit the annex to this decision, as contained in document A/CONF.151/PC/WG.II/L.17 as revised during this session, to the International Conference on Water and the Environment (ICWE), to be held in Dublin and attended by government-designated experts.
5. Invites the ICWE, recalling decision 2/20 of the Preparatory Committee, to:
  - (a) Consider this material with particular attention to implementation mechanisms, programme targets and costings;
  - (b) Identify options for appropriate mechanisms for implementing and coordinating the programmes;
  - (c) Identify options for improved coordination and cooperation on water management at the local, national, regional and global levels;
  - (d) Submit the report on the results of the meeting to the Secretary-General of the Conference before the fourth session of the Preparatory Committee;

6. Invites the Interagency Steering Committee of the ICWE to harmonize the working group themes of the ICWE with the programme areas of Agenda 21, as contained in the annex;
7. Urges the member organizations of the ACC Intersecretariat Group for Water Resources, and Governments, in light of the acute financial situation, to contribute generously to the preparation and organization of the ICWE;
8. Requests the Secretary-General of the Conference to submit the results of the ICWE to the fourth session, with a factual note identifying cross-references between these results and the revised Options for Agenda 21.

**[PROTECTION OF THE QUALITY AND SUPPLY OF FRESHWATER RESOURCES:  
APPLICATION OF INTEGRATED APPROACHES TO THE DEVELOPMENT,  
MANAGEMENT AND USE OF WATER RESOURCES**

Options for Agenda 21

**I. INTRODUCTION**

1. 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 resulting from integrated development planning or as a beneficial consequence of improved environmental or social conditions.

**Linkages to other Environmental and Developmental Issues**

2. Water is a finite resource, essential for the sustenance of life on earth. Virtually all the environmental issues listed in the United National 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—rivers, reservoirs, lakes and ground waters[, 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.

3. 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 ground waters due 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 discharge of both domestic and industrial wastes can lead to salinization of rivers, lakes, and soils, salt intrusions in coastal aquifers, and serious water pollution problems. Should global warming occur as a result of climate change 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, 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.



4. [The existence of transboundary waters and the management decisions relating to their use and protection are of significant importance to their riparian owners. In these circumstances special action may well be necessary to establish appropriate multilateral or bilateral agreements to ensure that riparian rights and practices fully take into account their mutual interests and the need to protect the waters from transboundary impacts.]

5. Water-related diseases are still a major health problem, especially in the developing countries. Diseases caused by microbiological pollution of water supplies or transmitted by water-associated vectors, and those related to inadequate sanitation and 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.

## II. GENERAL OBJECTIVES OF AGENDA 21

6. Water is a necessity of all life. The overall objective is to maintain the hydrological, biological and chemical functions of ecosystems to adapt human activities to the limits of nature's carrying capacity and to control water-related disease vectors.

7. 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 sea level rise, threaten coastal aquifers and small island ecosystems.

8. 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.

9. 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/... . 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 (General Assembly resolution 45/181) and on the recommendations which may emerge from the International Conference on Water and the Environment in Dublin, January 1992, and on the results of the Preparatory Committee.

10. The wide-spread 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 multi-sectoral nature of water resources development in the context on 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.

11. 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.]

12. 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 in Delft, 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:

- creating an enabling environment with appropriate policy and legal frameworks;
- institutional strengthening and development, including local community participation;
- human resources development, including the strengthening of managerial systems and water users interests;
- awareness building and education at all levels of society, [including *inter alia*, the consideration of a UN World Water Day].

13. [Adequate new and additional financial resources are indispensable for the effective utilization and protection of freshwater resources. Pursuant with 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.]

14. 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.

### III. PROGRAMME AREAS OF AGENDA 21

15. In accordance with the general objectives, the following components were developed for the freshwater sector:

- (a) Integrated Water Resources [Mobilization 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]

16. Each component is presented in this document in a format which covers the basis for action, objectives, activities (and means of implementation which will include, *inter alia*, the issues of financing and cost evaluation, scientific and technological means, human resources development and building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development).

#### A. INTEGRATED WATER RESOURCES [MOBILIZATION 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 fresh water. 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% for irrigation, less than 20% for industry and a mere 6% for domestic consumption. The holistic management of 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 not only at the national level but also at the inter-country and international levels.

##### Objectives

18. The overall objective is to satisfy the freshwater needs of countries for their economic and social development.

19. Integrated water resources management is based on water as an integral part of the ecosystem, a natural resource and an economic good, the quantity and quality of which determines its utilization. To this end, the availability and quality of water resources have to be protected, taking into account the functioning of aquatic ecosystems and the perennity 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 its true marginal costs.

20. Integrated water resources management should be carried out at the catchment basin or sub-basin level, taking into account existing interlinkages between surface and ground waters. Four principal goals 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 the 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 and indigenous peoples in water management policy-making and decision-making at the community level as well as at the national, regional and global levels

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. The strengthening of national capacities to manage the resource and the role of government and local organizations in creating the enabling environment for efficient and equitable utilization of the resource are crucial. In the case of transboundary water resources there is an even greater need to formulate and harmonize water resources strategies and action programmes.

22. [Although difficult to measure success in this area, quantitative targets could realistically be set as follows:

By the year 2000:

a. all countries, in accordance with their capacities and resources available, will have designed and initiated costed and targeted national action programmes, and 75% of all countries will have appropriate institutional structures and legal instruments in place.

By the year 2025:

b. subsectoral targets of all freshwater programme areas will be reached.

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 GA resolution 44/228.]

### Activities

23. [Countries, especially developing countries, according to their possibilities and with the assistance of relevant UN bodies and international donors, could implement the following activities to improve integrated water resources management in their countries:]

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 inventorization of water resources, with land-use planning, forest resource utilization and other relevant development activities

c. development of interactive databases, forecasting methods and economic planning models

d. optimisation of water resources allocation under physical and socio-economic

constraints

- e. implementation of allocation decisions through demand management, pricing mechanisms and regulatory measures
- f. flood and drought management using 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 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 at all levels concerned:
  - at the global level improved delineation of responsibilities, division of labour and co-ordination of international organizations and programmes;
  - [- at the regional level watershed-based organizations (river or lake basin authorities) and legal agreements for the joint management of transboundary water bodies;]
  - 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;
  - at the [local/decentralized] level delegation of water resources management to the lowest appropriate level, including decentralization of government services to local authorities, private enterprises and communities
- [p. elaboration, dissemination and application of operational guidelines in support of the

implementation of national action plans and local water management schemes]

[q. capacity building, including the rationalization and strengthening of institutional and legal structures and the development of the necessary human resources basis.]

### Means of Implementation

24. [The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following headings:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development.]

## B. WATER RESOURCES ASSESSMENT

### Basis for action

25. 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. 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 ground water and water quality. Major impediments are: the lack of financial resources for WRA, 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 data bases is, however, vital to WRA and for mitigating the effects of floods, droughts, desertification and pollution.

### Objectives

26. Based upon the Mar del Plata Action Plan, this programme area is extended into the 1990s and beyond with the overall objective to ensure 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 data base for rational water resource utilization.

27. Five specific objectives are set accordingly as follows:

- a. to make available to all countries water resource assessment technology which 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 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.
28. [Quantitative programme targets can be set for the number of countries covered with adequate services:
- a. by the year 2000 all countries, appropriate to their individual capacities and available resources, should have studied in detail the feasibility of installing water resources assessment services;
- b. by the year 2000 there should be water resources assessment services with a high-density hydrometric network installed in 70 countries, and services with limited but adequate capacity in 60 countries;
- c. by the year 2025 there should be 110 countries with fully developed services, and 40 countries with services of a limited capacity;
- d. the longer-term target is to have fully operational services, based upon high-density hydrometric networks, available in all countries, appropriate to their individual capacities and available resources.]

### Activities

Note: a new section on "Activities" to be prepared and the present text on activities to be incorporated in "Means of Implementation".

29. [Countries, especially developing countries, according to their possibilities and with the assistance of relevant UN agencies, regional and international organizations and donor agencies, and through bilateral and multilateral agreements, could undertake the following activities:
- a. increasing financial resources
- securing augmented budgetary allocations
  - exploring novel ways of funding
  - estimating the ecological, economic and social value of water resources data.
- b. improving institutional arrangements
- facilitating close collaboration between water sector agencies, particularly between information producers and users
  - reviewing the legislative and regulatory basis of WRA

- preparing catalogues of the water resources information held by government services, private sector, educational institutes, consultants, local water use organizations and others
  - implementing water management policies based upon realistic appraisals of water resource conditions and trends.
- c. upgrading and increasing technology transfer
- encouraging international organizations and donors to meet initially the immediate needs of the country commensurate with their technological standards
  - developing strategies for meeting requirements over the medium and long term.
- d. capacity building for WRA
- encouraging the provision of attractive terms of employment and career paths for professional and technical staff
  - monitoring human resources needs and meeting them through education and training opportunities, and international programmes of courses and conferences
  - strengthening the managerial capabilities of water users groups to improve water use efficiency at the local level.]

### Means of Implementation

30. [The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following headings:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development.]

## C. PROTECTION OF WATER RESOURCES, WATER QUALITY AND AQUATIC ECOSYSTEMS

### Basis for action

31. 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 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. 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 the food chain. Many of these problems have arisen from a development model which 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 grossly inadequate or non-existent in many developing countries.

### Objectives

32. 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".

33. 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;

b. public health protection—a task requiring not only the provision of pathogen-free 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.

34. [The following targets have been set to integrate water quality aspects into water resource management:

a. by the year 2000 all countries, appropriate to their capacities and resources available, should have identified all potential sources of water supply and prepared outlines for their protection, conservation and rational use;

b. by the year 2000 all countries should have effective water pollution control programmes, defined as enforceable standards for major point-source discharges and high-risk non-point sources, commensurate with their socio-economic development;

c. by the year 2000 all countries should participate, as far as appropriate, in inter-country and international water quality monitoring and management programs such as the Global Water Quality Monitoring Programme GEMS/WATER, UNEP's Environmentally Sound Management of Inland Waters, FAO's regional inland fishery bodies, and the RAMSAR Convention on Wetlands of International Importance especially as Waterfowl Habitat;

d. by the year 2025 the prevalence of water-associated diseases should be drastically reduced, starting with the eradication of dracunculosis (Guinea worm) by the year 2000 and onchocerciasis (river blindness) by the year 2000.

e. by the year 2025 all countries should have established biological, health, physical and chemical quality criteria for all water bodies (surface and ground water) with a view to an ongoing improvement of water quality.]

Note: activities for target (d) are included in part under section D and in the Agenda 21 chapter on human health aspects [PC/54].

### Activities

35. [All countries, especially developing countries, according to their possibilities and with the assistance of appropriate UN agencies and other international organizations, regional economic cooperation organizations, and in cooperation with the industrialised countries could embark upon the following activities:]

a. Water resources protection and conservation

- establishment and strengthening of technical and institutional capacities to identify and protect potential sources of water supply
- promotion and extension of the application of GIS and EIA
- identification of potential sources of water supply and preparation of national inventories
- preparation of national plans for water resources protection and conservation
- strengthening of administrative and legislative measures to prevent encroachment into potentially usable catchment areas.

b. water pollution prevention and control

- application of the polluter pays principle to all kinds of sources, including on-site and off-site sanitation
- promotion of the construction of treatment facilities for domestic sewage, drainage waters, industrial effluents, and the development of appropriate and indigenous technologies
- establishment of standards for the discharge of effluents and for the receiving waters
- introduction of the precautionary approach in water quality management
- mandatory environmental impact assessment on all water resource development projects potentially impairing water quality and aquatic ecosystems, combined with a strengthened control of new industrial installations, solid waste landfills and infrastructure development projects
- enforcement of decisions based on risk assessment and risk management
- identification and application of best environmental practices to avoid diffuse pollution, i.e. through a limited, rational and planned use of nitrogenous fertilizers and other agrochemicals (pesticides, herbicides) in agricultural practices
- encouragement and promotion of adequately treated and purified wastewaters in agriculture, aquaculture, industry and other sectors.

c. development and application of clean technology

- control of industrial waste discharges, including low-waste production technologies and water recirculation
- treatment of municipal wastewater for safe reuse in agriculture and aquaculture
- development of biotechnology for waste treatment, production of biofertilizers etc.
- development of appropriate and indigenous methods for water pollution control.

d. groundwater protection

- application of the necessary measures to mitigate saline intrusion into aquifers of small islands and coastal plains as a consequence of sea-level rise or of overexploitation of coastal aquifers

- prevention of aquifer pollution through the establishment of protection zones in groundwater recharge and abstraction areas
  - design and management of landfills based upon sound hydrogeological information and impact assessment, using best available technology
  - mandatory water quality monitoring, on a permanent basis, of surface and groundwaters potentially affected by landfills.
- e. protection of aquatic ecosystems
- rehabilitation of polluted and degraded water bodies to restore aquatic habitats and ecosystems
  - rehabilitation programmes for agricultural lands and for other users, taking into account equivalent action for the preservation and use of groundwater resources, important for agricultural productivity and for the biodiversity of the tropics
  - conservation, in a balanced ecological and socio-economic framework, and protection of wetlands due to their ecological and habitat importance for many species as well as their socio-economic values
  - control of noxious aquatic species which may destroy some other water species.
- f. protection of freshwater living resources
- control and monitoring of water quality to allow for the sustainable development of inland fisheries
  - protection of ecosystems from pollution for the development of freshwater aquaculture projects.
- g. monitoring and continuous surveillance of waters receiving wastes and water resources
- establishment of networks for the monitoring and continuous surveillance of waters receiving wastes and of point and diffuse sources of pollution
  - surveillance of all pollution sources to improve the compliance with standards and regulations and to regulate the issue of discharge permits
  - monitoring of the utilization of chemicals in agriculture
  - 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
- The protection of the quality of water resources requires legal instruments, particularly for:
- monitoring and control of pollution in national and transboundary waters
  - control of long-range atmospheric transport of pollutants
  - control of accidental and/or deliberate spills in national and/or transboundary water bodies
  - environmental impact assessment.
- i. capacity building for water quality management
- establishment and strengthening of institutional frameworks at national and local levels
  - development of technical infrastructure for water quality monitoring, assessment and control to include capacity for standard setting, permits and effective enforcement at the national and local level
  - training of professionals to enhance staff capabilities at technical and managerial levels
  - dissemination of information to water users at all levels on, inter alia, ecosystems,

the water cycle, water quality protection, source control measures and water-borne disease control

- awareness building on ecological and water quality issues at all levels.]

### Means of Implementation

36. [The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following headings:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development.]

## D. DRINKING WATER SUPPLY AND SANITATION

### Basis for action

37. Safe water supplies and environmental sanitation are vital for protecting the environment, improving health and alleviating poverty. An estimated 80 percent of all diseases and over one third of deaths in developing countries are caused through 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 UN International Drinking Water Supply and Sanitation Decade (IDWSS) which resulted from the Mar del Plata Action Plan adopted by the UN 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 IDWSS was to provide safe drinking water and sanitation to underserved urban and rural areas by 1990. But even the unprecedented progress achieved during this 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 the main causes of 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

38. 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, requesting "some for all rather than more for some". 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.

39. Past experience has shown that specific targets should be set by each individual country. At the 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 to achieve full coverage in water supply by 2025, it is estimated that annual investments must reach double current levels. One realistic strategy to meeting present and future needs, therefore, is to develop lower cost but adequate services that can be implemented and sustained at the community level.

#### Activities

40. [All countries, especially developing countries, according to their possibilities and with the assistance of appropriate UN agencies and other international organizations, and in cooperation with the industrialised countries could embark upon the following activities:]

##### a. the environment and health

- establishment of protected areas for sources of water supply
- sanitary disposal of excreta and sewage, using appropriate systems to treat wastewaters in urban and rural areas
- expansion of urban and rural water supply
- building and expansion, where appropriate, of sewage treatment facilities and drainage systems
- treatment and safe reuse of domestic and industrial wastewaters in urban and rural areas
- control of water-associated diseases

##### b. people and institutions

- [strengthening the functioning of governments in water resources management and, at the same time, giving full recognition to the role of local authorities]  
or:
- [encouraging decentralization and the part played by local authorities, private enterprises and NGOs]  
or:
- [drawing attention of governments to the need for greater decentralization and for strengthening the role of local authorities, private enterprises and NGOs]
- human resources development at all levels, including special programmes for women
- broad-based education programmes, with particular emphasis on hygiene, local management and risk reduction
- [international coordination mechanisms for programme funding and implementation]

c. national and community management

- support and assist communities in managing their own systems on a sustainable basis
- encouragement of [the local population, especially] women in water management
- linkages between national water plans and community management of local waters
- integration of community management of water in the context of overall planning
- 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
- assisting service agencies to be more cost-effective and responsive to consumer needs
- more attention to be given to underserved rural and low-income peri-urban areas
- rehabilitation of defective systems, reduction of wastage and safe reuse of water and wastewater [through additional international financing]
- [programmes for operation and maintenance on the basis of cost recovery and charging mechanisms]
- or:
- [programmes for rational water use and ensured maintenance]
- research and development of appropriate technical solutions
- [review of the criteria of financial assessment of drinking water and sanitation projects of multi-lateral credit organizations by taking into account mainly the environmental and social benefits of these projects]
- [international efforts of solidarity by the developed countries with the developing countries in granting new and additional financial resources in accordance with resolution 44/228 in order to install treatment plants for urban waste waters]

Means of Implementation

41. [The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following headings:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development.]

E. WATER AND SUSTAINABLE URBAN DEVELOPMENT

Basis for action

42. 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%, 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. 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. This situation is particularly serious in developing countries. 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

43. 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.

44. [Countries should strive to achieve by the year 2000:
- a. All urban residents would have access to at least 40 litres per capita and day of safe water and 75% are provided with on-site or community facilities for sanitation.
  - b. All countries would establish and apply quantitative and qualitative discharge standards for municipal and industrial effluents.
  - c. 75% of solid waste generated in urban areas would be collected and recycled or disposed of in an environmentally safe way.]

### Activities

45. [All countries, especially developing countries, according to their possibilities and through regional and international cooperation, and with the support of NGOs and the private sector, could undertake the following activities:]

- a. protection of water resources from depletion, pollution and degradation
  - introduction of sanitary waste disposal facilities based on ecologically sound low-cost and upgradable technologies
  - implementation of urban storm water runoff and drainage programmes
  - promotion of recycling and reuse of waste-water and solid wastes.
  - control of industrial pollution sources to protect water resources
  - protection of watersheds from depletion and degradation of their forest cover and from harmful upstream activities
  - promotion of research into the contribution of forests to sustainable water resources development
  - limitation of the intensive use of agrochemicals with a view to minimizing their impact on water resources
- b. efficient and equitable allocation of water resources
  - reconciliation of city development planning with the availability and sustainability of water resources
  - satisfaction of the basic water needs of the urban population
  - introduction of water tariffs, where affordable, which reflect the marginal and opportunity cost of water, especially for productive activities
- c. institutional/legal/management reforms

- adoption of a city-wide approach to the management of water resources
  - promotion at the national and local level of the elaboration of land use plans which give due consideration to water resources development
  - 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 of water resources
- d. promotion of public participation
- initiation of public awareness campaigns to encourage the public towards rational water utilization
  - sensitization of the public for the protection of water quality within the urban environment
  - promotion of public participation for the collection, recycling and elimination of wastes
- e. support to local capacity building
- development of legislation and policies to promote investments in urban water and waste management reflecting the major contribution of cities to national economic development
  - provision of seed money and technical support to the local handling of materials supply and services
  - encouragement, to the extent possible, of autonomy and financial viability of city water, solid waste and sewerage utilities
  - creation and maintenance of a cadre of professionals and semi-professionals for water, wastewater and solid waste management.

### Means of Implementation

46. [The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following headings:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development.]

## F. WATER FOR SUSTAINABLE FOOD PRODUCTION AND RURAL DEVELOPMENT

### Basis for action

47. 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. Rural development requires the integrated satisfaction of basic human needs for drinking water and for food production. 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 in the upstream watersheds, mismanagement and over-exploitation of the natural resources [in downstream watersheds] and acute competition for water, have all influenced the extent of poverty, hunger and famine in the developing nations. Soil erosion caused by overgrazing of livestock in uplands 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 due to interbasin transfers, nor by the assessment of social impacts on peoples in river valleys.

### Objectives

48. 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 IAP-WASAD 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.

49. The IAP-WASAD 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 94 developing countries are estimated on the basis of food requirements, agro-climatic zones and availability of water and land.

50. [Freshwater fisheries in lakes and streams are an important source of food. Utilization of water resources for other purposes should minimize their impact on freshwater ecosystems and fish populations and on the people who depend on these ecosystems for food security. Objectives for livestock, inland fisheries and aquaculture to be inserted. References: PC/61 and PC/69.]

51. The projections for irrigation are as follows:

[By the year 2000:

- a. 21 million hectares of new irrigation development
- b. 17 million hectares of improvement/modernization of existing schemes
- c. 10 million hectares installed with drainage and water control facilities
- d. 15 million hectares of small-scale irrigation water programmes and conservation.]

52. 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 considerable negative environmental impacts are expected and also depending upon the scale of the scheme. Before developing new irrigation schemes, efforts should be made towards a more rational exploitation of existing schemes, including increased efficiency and productivity. 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.

53. [Quantitative targets for livestock, inland fisheries and aquaculture to be inserted. References: PC/61 and PC/69.]

## Activities

54. [Countries, especially developing countries, according to their possibilities and with the support of the international community and cooperation of the private sector and NGOs, could undertake the following activities to protect their water resources from depletion and degradation:]

### a. water use efficiency

- increase of efficiency and productivity in agricultural water use for better utilization of limited water resources
- strengthening of water and soil management research under irrigation and rainfed conditions
- monitoring and evaluation of irrigation project performance to ensure, *inter alia*, the optimal utilization and proper maintenance of the project
- support to water users groups with the aim to improve management performance at the local level
- supporting the appropriate use of relatively brackish water for irrigation

### b. waterlogging, salinity control and drainage

- introduction of surface drainage in rainfed agriculture to prevent temporary waterlogging and flooding of lowlands
- introduction of artificial drainage in irrigated and rainfed agriculture
- encouragement of conjunctive use of surface and groundwaters, including monitoring and water balance studies
- practising of drainage in irrigated areas of arid and semi-arid regions

### c. water quality management

- establishment and operation of cost-effective water quality monitoring systems for agricultural water uses
- 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
- establishment of biological, physical and chemical water quality criteria for agricultural water users and for marine and riverine ecosystems
- prevention of soil run-off and sedimentation
- proper disposal of sewage from human settlements and of manure produced by intensive livestock breeding
- minimize adverse effects from agricultural chemicals by use of integrated pest management
- education of communities about the pollution impacts of the use of fertilizers and chemicals on water quality and food safety

### d. small-scale water programmes

- development of small-scale irrigation, water supply for humans and livestock and for water and soil conservation
- promotion of local initiatives for the integrated development and management of water resources
- provision of adequate technical advice and support and enhancement of institutional collaboration at the local community level
- [promotion of a technical farming approach for water management which takes

account of the level of education, the capacity to mobilize local communities, and the ecosystem requirements of arid and semi-arid regions]

e. scarce water resources management

- development of long-term strategies and practical implementation programmes for agricultural water use under scarcity conditions with competing demands for water
- recognition of water as an economic and strategic good in irrigation planning and management
- formulation of specialized programmes focused on drought preparedness with emphasis on food scarcity and environmental safeguards
- promotion and enhancement of wastewater reuse in agriculture
- [encouragement of basin-wide cooperation in the integrated development of all types of transboundary water resources, taking into consideration the sovereignty of states and the equitable use of water resources]

f. supporting capacity building

- development of adequate data bases and adaptive research
- institutional strengthening based upon human resources development at all levels, in particular water users groups; with special attention to rural women and small-scale farmers
- transfer of existing water use technologies and support of their field application.]

[Note: Activities concerning livestock, inland fisheries and aquaculture to be added. References: PC/61 and PC/69.]

Means of Implementation

55. [The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following headings:

- Financing and cost evaluation
- Scientific and technological means
- Human resources development
- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development.]

[G. IMPACTS OF CLIMATE CHANGE ON WATER RESOURCES

Basis for action:

56. There are many uncertainties about climate change and particularly sea-level rise. Global climate changes could have disastrous effects on freshwater resources and their availability and, through sea-level rise, threaten coastal aquifers and small-island ecosystems. This is particularly crucial to small-island countries which rely for their freshwater supply almost exclusively upon underground water resources. Already, many small low-lying and island countries have to cope with the effects of variations in the hydrological regime on coastal and marine resources. The intrusion of salt water into coastal aquifers and flooding from tidal increases is a reality in many

of these countries. While there is no definitive proven link between these phenomena and climate change, there is nonetheless cause for concern that these trends may escalate. Consequently, there is a due need for response strategies that are based on sound scientific data.

57. A long-term research commitment, based on shared responsibilities of countries concerned, is needed to reduce the uncertainties involved. Meanwhile, precautionary measures have to be initiated to diminish present risks and effects, particularly on small islands, low-lying states and coastal areas of the world. The work of the IPCC in this field is to be taken into account.

### Objectives

58. To develop techniques and methodologies for assessing the potential adverse effects of sea-level rise, as a consequence of climate change, on freshwater resources and the resulting social, economic and environmental impacts.

### Activities

59. Countries, especially developing countries, according to their possibilities and with the assistance of the international community, could undertake the following:

- a. development of methods and approaches for the assessment and monitoring of the effects of climate change on coastal aquifers and freshwater resources
- b. assessment of the social, economic and environmental impacts of coastal dynamics and their implication for freshwater resources
- c. development of possible response measures, proactive and reactive, based on the above assessments
- d. continuous assessment of the impact of climate change on hydrological systems worldwide
- e. mitigation of saline intrusion into aquifers of small islands and coastal plains as a consequence of sea-level rise.

### Means of Implementation

60. The implementation by developing countries of specific programmes and actions envisaged under Agenda 21 will be subject to the provision of adequate new and additional financial resources and of technology on concessional, preferential and non-commercial terms.

Proposals for means of implementation will include the following headings:

- Financing and cost evaluation
- Scientific and technological means
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- Building capacity of developing countries for preventive and corrective action in the field of environmental protection and promotion of development.]

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