

doc
CA1
EA752
99H72
ENG

DOCS NATIONS DEPARTMENT FOR
CA1 EA752 99H72 ENG
Roundtable on Human Security and
Water-Related Conflict (1999 :
Ottawa, Ont.)
Human security and water-related
conflict Roundtable report
17923619



125 Sussex Dr. Ottawa, Ontario K1A 0G2

REPORT FROM THE ROUND TABLE ON
HUMAN SECURITY AND WATER CONFLICT

**HUMAN SECURITY AND WATER-RELATED CONFLICT
ROUNDTABLE REPORT**

Canadian Centre for Foreign Policy Development

April 13, 1999
Ottawa, Canada

1004.3E

ISBN: 0-662-30112-9
E2-232/1999E

JAN 8 2007

Return to Departmental Library
Retourner à la Bibliothèque du Ministère

REPORT FROM THE ROUND TABLE ON HUMAN SECURITY AND WATER CONFLICT

The Canadian Centre for Foreign Policy Development, at the request of the Foreign Affairs Minister, Lloyd Axworthy, organised a round table in Ottawa on April 13, 1999, on Human Security and Water Conflicts. Participants included specialists on water-related issues, engineers, NGOs, conflict resolution experts, IJC experts, students as well as officials from the Department of Foreign Affairs and International Trade, Canadian International Development Agency, and Environment Canada. The round table addressed key water-related issues (water-resources, water-management, water-conflicts) in the broader framework of human security. The following is a report from the day-long discussion.

SUMMARY OF PRESENTATIONS

Following welcoming and introductory remarks by **Steven Lee**, National Director of the Canadian Centre for Foreign Policy Development, **Ralph Daley** of UNU opened the discussion with a brief presentation on the *State of the World's Water*. Professor Daley contended that growing water shortages from uneven distribution, wastage, and pollution coupled with rising water demand due to population growth have contributed to intensifying competition for fresh water resources. (20% of the world's population, concentrated in 30 countries, face water shortages -- a figure that will rise to 30% of the world's population, in 50 countries, by 2025. Meanwhile, water demand is increasing at twice the population growth rate). This competition is reflected in tensions over the purpose of water use (i.e., for household, industrial, or agricultural use), transboundary disputes over water quality and quantity, as well as past and present conflicts/wars.

Growing water scarcity has serious health and ecological implications and endangers the quality of water. If no action is taken to address these issues we may be faced with reduced resilience in human and ecological systems, increasing climate change, water-related diseases, salinisation, water pollution, collapse of aquatic ecosystems and water supplies, mass refugee migrations as well as escalating armed conflict.

Daley estimated the total cost for sanitation and safe water to be \$25 billion per year for 10 years. The best ways of dealing with the global water problem, he pointed out, would be through integrated water management (holistic, ecosystem-based, managed at the river basin level, aimed at reconciling the competing water demands with supply) and capacity building (including the social capacity to educate and train; the scientific capacity to monitor and assess the aquatic environment; the institutional capacity to plan, legislate, regulate and achieve

compliance; and the economic capacity to provide sustainable services and products).

The next speaker was **Jennifer Moore** from Environment Canada. She spoke about how Canada could contribute to resolving the global water problems. She pointed out that Canada has a wealth of experience and expertise in water-related issues including: 1) institutional arrangements for shared water management, 2) science/monitoring, and 3) capacity building. Areas that required some policy attention were: building a coherent network of "water players," building international capacity, as well as promoting opportunities for Canadian business and technology transfers.

Moore argued that there is a need to move beyond strategising towards implementing practical and pragmatic solutions. She pointed out that there exists currently room to address water related issues since the key players perceive a clean environment as a necessary condition for human security. There are 44 countries globally with 80% of their total areas within international basins. As well, there are more than 300 internationally shared basins. This situation should contribute to the development of an international cohesive water management strategy aimed at averting conflict.

She also brought up the issue of water export gaining momentum and the mixed record Canada has had in terms of fresh water management. Canada is the 2nd highest per capita user of fresh water in the world. Pollution in Canada continues to remain a threat to human health. Toxic substances and acid rain continue to damage Canadian ecosystems.

Following Jennifer Moore's presentation, **Richard Denham** of RV Anderson Associates addressed *Water Management Issues*. He argued that a water conflict resolution strategy could be conceptualised on a "sustainability continuum" in three categories (attached). Variables include a time horizon and methods of intervention. Positioned at the beginning of the continuum, relief efforts fall into the first category. They entail the provision of short term assistance in response to a sudden disaster and are mostly reactive. Moving along the continuum, the second category includes technical solutions that are capital intensive and rarely result in long term solutions. The last category involves conflict resolution and prevention and is the key to any sustainable solution. It is within this last category that Canada should develop a role as a skilled non-threatening facilitator in water-related disputes. He concluded by saying that the human security aspect can be dealt with only through facilitation efforts.

The next speaker, **Stephen Owen**, Director of the Centre for Dispute Resolution at the University of Victoria, addressed on water-related conflict resolution. At the outset of his presentation he pointed out that not all relationships involving water-sharing are negative and hostile. Any conflict resolution effort should tap the positive elements. Canada may contribute to the world water strategy through its own expertise with water use, land use, as well as by looking at the approach of its own aboriginal peoples to water management. He strongly stressed the necessity of collaboration among involved parties since most water disputes are 1) competing, 2) legitimate, and 3) interdependent. In some cases the range of issues in negotiations must be broadened so that all parties are able to "walk away with something." Decisions must be collective and include the public for any resolution to be sustainable. The up-stream/down-

stream dichotomy does not hold since water problems are inter-related (i.e., fish may swim upstream). He further cautioned against the danger of imposing Canadian or western resolution methods on people who would otherwise approach water-related issues and disputes/conflicts differently and perhaps more successfully. Some good examples of cooperation on water-related issues include the International Joint Commission (IJC).

The last speaker, **Ken Macartney**, Director of the Environmental Relations at DFAIT, pointed out that water-related issues impact all of the three basic pillars of Canadian foreign policy: 1) economic prosperity, 2) peace and security, and 3) Canadian values. In order to be economically prosperous resources have to be protected. Various organisations (IJC) and bilateral as well as international agreements on water sharing are integral to preventing conflict and maintaining peace -- necessary conditions of a prosperous trading system. Protecting the global commons and issues of human security as well as environmental security constitute an important part of the Canadian value system.

Mr. Macartney pointed out Canada could draw on government, NGOs, and other private and institutional support to contribute in international norm setting, offer policy advice on sustainable water management issues as well as conflict prevention. He also drew attention to the challenges of appearing too preachy when assisting countries with water problems that differ vastly in kind and scope. Other question he posed: In which context should global water issues be addressed (i.e., regionally or bilaterally)? How do we achieve coherence, coordination and cooperation in an environment of scarcity?

SYNOPSIS OF THE DISCUSSIONS

The participants addressed the nature of water-related issues. Some raised the point that it is not quite clear how the topic fits within the human security context and therefore some basic definitional clarification is needed. **Until recently water-related issues have been primarily seen through the prism of water-related war/conflict (among states), putting the issues on the top of the human security agenda could prove challenging. This shift in focus should be accompanied by a shift from war/conflict terminology to that reflecting the new preoccupation with individuals and their well being. Redefining the nature of the problem naturally implies a change in strategy, leading to new dilemmas of how to approach water-related issues.** Different strategies have to be devised for different kinds of problems. For instance, the response to an armed conflict over water between states (as well as regions, communities, or nations) will be quite different than a response to a crisis brought about by natural causes or pollution. This reality poses not only conceptual but also institutional challenges. In particular, it requires coherence in foreign policy where development priorities (CIDA) become synonymous with human security preoccupations (DFAIT).

While some argued vehemently for the human security approach to water-related issues, since there is nothing more threatening to human beings than the lack of food, water, and shelter; others pointed out the importance of seeing them in the context of

environmental, ecological, and economic security. They argued that the human security approach to water-related issues is flawed since it assumes that water-related problems occur in a vacuum and pointed out the necessity of seeing them as an integral part of a country's (region's) economic, ecological, and environmental reality. This argument has clear implications on the strategies devised to cope with water-related problems.

The participants collectively raised the following reasons for the world water shortage:

- **uneven distribution**
- **consumerism**
- **wastage** including leakage, theft, and poor accounting
- **inefficient use of fresh water resources** including unsustainable use of underground water
- **pollution**
- growing water demand due to **population growth** (world population will have increased from 5.8 to 8.0 billion by 2025)
 - increasing urbanisation
 - increasing agricultural irrigation
 - increasing food production
- **rising standards of living** (in some parts of the world)

Solutions offered during the discussion were based on how problems were perceived. Some proposed political solutions (i.e., facilitation of conflict), while others addressed problems by looking at global economic inequalities (i.e., western consumerism). Technical solutions were also explored (i.e., methods of exploiting under-utilised sources of fresh water, treating and re-using domestic "grey" water, collection of rain water and moisture from sea fog). Attention was paid to countering the problem of uneven distribution through the movement of water, including water exports, and movement of products that require water in their production (virtual water). The contentious idea that Canada could/should export fresh water was also brought up, raising such dilemmas as "getting the price of water right."

POLICY OPTIONS: CANADIAN-BASED STRATEGY

Some participants raised the point that since Canada has a wealth of experience dealing with its own water-related issues, a Canadian-based strategy could be developed to address global water-related problems. The key resources Canada could draw on in developing such a global strategy include:

- ▶ experience and expertise in **institutional arrangements for shared water management** (i.e., Canada-U.S. relations/**International Joint Commission**, the Great Lakes Water Quality Board, Prairie Provinces Water Board)
- ▶ experience and expertise in **water management in the context of federalism** (i.e., federal/provincial shared water management practices)
- ▶ experience and expertise in **science and monitoring** (i.e., Global environmental

Monitoring Systems (GEMS), a worldwide water quality monitoring system based at NWRI in Burlington, RAISON -- decision making for watershed management, Canadian Water Quality Guidelines, ecological monitoring and assessment, risk and environmental impact assessment, pollution control and management of toxic substances, database management, hydrolic applications, environmental decisions support systems)

- ▶ experience and expertise in **capacity building** (i.e., application of river basin management, ecosystem and community-based approaches, education, technology transfer -- especially low cost technology to developing world)
- ▶ The **involvement of civil society** in water-related policy was also raised as an important component of any strategy, especially by Stephen Owen, University of Victoria.
- ▶ The need to bring together the major players for better **collaboration in order to build coherent international capacity** was voiced. The problem of coherence was also raised in relation to NGOs, international organisations dealing with water-related problems as well as the Canadian government itself (CIDA, DFAIT).
- ▶ Canada could lead the necessary **move from strategising to implementing concrete practical solutions**. Many participants pointed out that despite a myriad of meetings and conferences aimed at alleviating water-related problems, little has been done to actually implement the ideas they have generated. Others addressed the general ineffectiveness of formal agreements and protocols and suggested new practical ways of approaching water-related issues have to be found.
- ▶ Canada could play a role of a **skilled "neutral" facilitator to water-related disputes and conflict**.

CONCLUSION

The idea that Canada is in a unique position to pursue a global strategy for water was reaffirmed by Ralph Daley and others. He said that given the good reputation Canada has in the world there is room for developing a **Canadian foreign policy niche in water-related issues**. Canada could, for example, produce the annual World Report on Water.

Steven Lee pointed out that many of the strategies suggested in the discussions reflect the soft power approach to foreign policy advanced by Minister Axworthy. Through the contributions of Canadians in science and monitoring, technology, capacity building, use and sharing of institutional models as well as coordination to help develop a cohesive international water management network Canada has a unique opportunity to impact positively a world water strategy.

In order to pursue these options, there is a need for commitment by the Canadian government as well as civil society sectors and the international community. Before a Canadian-based strategy for water is developed some key and difficult questions have to be answered. Among them are, for example: Should Canada get involved and why? Does Canada have sufficient resources to pursue such a strategy? What are our ultimate goals and expectations?

Human Security and Water Conflict

April 13, 1999

Invited Participants

Richard Ballhorn
Director General
International Environmental Affairs
DFAIT

Dr. Pierre Béland
St. Lawrence National Institute of
Ecotoxicology and (former commissioner)
International Joint Commission

Nicholas Borsinger
Advisor to the Secretary General
Canadian Red Cross

Nicole Bosley
Executive Director
WaterCan

Tony Breuer
Executive Director
Partners in Rural Development

Prof. Mike Brklacich
Department of Geography
Carleton University

David Brooks
International Development Research Centre

Susan Brown
Chief, Peacebuilding Unit
Multilateral Programs Branch
Canadian International Development
Agency

Mr. Charles Caccia, M.P.
Member of Parliament

Paul Chambers
Canadian International Development
Agency

Ralph Daley
UNU/IWEH
McMaster University

Richard Denham
RV Anderson Associates Ltd.
Consulting Engineers

Andrew Hamilton
Head, Science Division
Commission for Environmental Cooperation

John Henderson
Spider International

Christine Hogan
Director International Relations
Environment Canada

Eric Hoskins
Policy Advisor to
Lloyd Axworthy Minister of Foreign Affairs

Don Hubert
Co-ordinator of Humanitarian Affairs
DFAIT

Habib Khoury
Hydrosult

Christine Lee
Gordon Foundation

Judith Léveillé

Policy Planning
DFAIT

National Water Issues Branch
Environment Canada

Steve Lee
National Director
Canadian Centre for Foreign Policy
Development

DFAIT
Andrew Livingstone
Cowater International Inc.

Prof. Steven Lonergan
Department of Geography
University of Victoria

Ken Macartney
Director
Environmental Relations
DFAIT

Jim McCuaig
Canadian International Development
Agency

Jennifer Moore
Director General
Eco Systems and Environmental Resources
Environment Canada

Stephen Owen, QC
Professor of Law and Public Policy
and Director Centre for Dispute Resolution
University of Victoria

Ebyan Salah
Som-Can Institute

Prof. Eric J. Schiller
Program Manager
International Network on Water,
Environment and Health - UN University
and International Water Engineering Centre

Civil Engineering Department
University of Ottawa

Aly Shady
Canadian International Development
Agency

Michael Small
Director
Peacebuilding and Human Security
DFAIT

Necla Tschirgi
International Development Research Centre

Kathy Vandergrift
World Vision

Ruth Walker
Christian Science Monitor

Regrets:

Paul Heinbecker
ADM Global and Security Policy
DFAIT

Anthony Clarke
Senior Environmental Advisor
International Joint Commission

Yaprak Baltacioglu
Director General
International Relations
Environment Canada

Rex Brynen
McGill University

Prof. James Bater
Department of Geography
University of Waterloo



Dana Vindasius
A/Chief
National Water Issues Branch
Environment Canada

Randolph Mank
Director
Policy Planning
DFAIT

- Selected CCFPD Reports From 2000-2001*
- Canada and the Prevention of Armed Conflict: Options to Enhance Rapid Deployment and Emergency Response Capabilities*. Peter Langille, Global Human Security Ideas and Initiatives, Fall 2000.
- Canada's Role in the Middle East: Case Study of the Human Right to Israel/Palestine and Jordan*. Tami Aranda Jacoby, University of Manitoba, Fall 2000.
- Les Entreprises canadiennes et la consolidation de la paix*. Jean-François Bédard, François-José Gauthier, and Christian Geiser, Université de Québec à Montréal, Le 31 octobre 2000.
- Nuclear Weapons and Small Arms*
- Ballistic Missiles Foreign Export: Roundtable Report*. Emme Regier, Project Ploughshares and Peter Moore, CCFPD, March 30, 2000.
- NATO Nuclear Weapons Roundtable Report*. CCFPD, August 24-25, 2000.
- Small Arms and the OAS Roundtable Report*. CCFPD, April 28, 2000.
- Etudes des processus décisionnels gouvernementaux et d'ONG concernant les armes légères et approvisionnement en munitions: proposition pour un indice de sécurité individuelle (ISI)*. Francis Duchesneau et al., August 2000.
- Disarmament and Peace: A Public Health Perspective*. Wendy Carter et al., Fall 2000.
- Reviews*
- Prevention of the Plague in the World: Issues for Canada*. Heather Nicol and Lee Townsend, Fall 2000.
- New Diplomacy*
- Report from the Roundtable on War and Genocide*. CCFPD, December 2000.
- Report from the Ottawa Roundtable for the International Commission on Intervention and State Sovereignty (ICISS)*. CCFPD, January 12, 2001.



SELECTED CCFPD REPORTS FROM 2000-2001¹

Conflict Prevention and Peacebuilding

Renewing Partnerships for the Prevention of Armed Conflict: Options to Enhance Rapid Deployment and Initiate a UN Standing Emergency Capability. Peter Langille, Global Human Security Ideas and Initiatives. Fall 2000.

Report from the Roundtable on Expert Deployment to International Peace Operations. CCFPD. September 12, 2000.

Canadian Peacebuilding in the Middle East: Case Study of the Canada Fund in Israel/Palestine and Jordan. Tami Amanda Jacoby, University of Manitoba. Fall 2000.

Les Entreprises canadiennes et la consolidation de la paix. Jean-Francois Rioux, Francisco-José Valiente, and Christian Geiser, Université du Québec a Montréal. Le 31 octobre 2000.

Nuclear Weapons and Small Arms

Ballistic Missiles Foreign Experts Roundtable Report. Ernie Regehr, Project Ploughshares and Peter Moore, CCFPD. March 30, 2000.

NATO-Nuclear Weapons Roundtable Report. CCFPD. August 24-25, 2000.

Small Arms and the OAS Roundtable Report. CCFPD. April 28, 2000.

Examen des récentes initiatives gouvernementales et d'ONG concernant les armes légères et appréciation sur leur efficience: proposition pour un indice de sécurité individuelle (ISI). Frances Gaudreault et al. Summer 2000.

Globalization and Firearms: A Public Health Perspective. Wendy Cukier et al. Fall 2000.

Borders

Perspectives on the Borderless World: Issues for Canada. Heather Nicol and Ian Townsend-Gault. Fall 2000.

New Diplomacy

Report from the Roundtable on Just War and Genocide. CCFPD. December 8-9, 2000.

Report from the Ottawa Roundtable for the International Commission on Intervention and State Sovereignty (ICISS). CCFPD. January 15, 2001.

.../2

¹ Visit www.cfp-pec.gc.ca for more reports and other publications.

Children's Rights

Children and Violent Conflict: Meeting the Challenge of Diversity. Erin Baines, Dalhousie University; Barry Burciul, University of Toronto. Summer 2000.

Business and Labour

Canadian Firms, Canadian Values. Canadian Business for Social Responsibility. May 2000.

Africa

Report from the Ottawa Nigeria Roundtable. CCFPD. March 20, 2000.

Asia-Pacific

APEC Media Monitoring Report: A Synopsis of Key Findings from IMPACS' 1999 Youth Internship Project. Institute for Media, Policy and Civil Society. 2000.

Report from the Burma and Drugs Roundtable. CCFPD. May 15, 2000.

Report from the North Korea Roundtable. CCFPD. January 22, 2001.

Report from the Victoria Roundtable on Indonesia. CCFPD. March 13, 2000.

Europe

Report on Cyprus: Living Together in the New Century Roundtable. CCFPD. February 14, 2000.

Americas

Canada, Indigenous Peoples and the Hemisphere Roundtable Report. CCFPD. March 23, 2000.

CCFPD Summary Report: The Americas. CCFPD. Fall 2001.

Rapport de synthèse du CCDPE: les Amériques. CCFPD. Fall 2001.

Threats to Democracy in America. Max Cameron, Canadian Foundation for the Americas (FOCAL). March 3-4, 2000.

Report from the Roundtable on Governance, Civil Society and the Americas. CCFPD. January 28, 2000.

Report from the Roundtable on Canada-Cuba Relations. CCFPD. January 18, 2000.

Look Ahead to Windsor Roundtable Report (OAS). CCFPD. April 26, 2000.

Culture

Commerce International et diversité culturelle: la recherche d'un difficile équilibre. Ivan Bernier, Université Laval and Dave Atkinson. 2000.

Circumpolar Issues

Roundtable on Northern Foreign Policy: Feedback and Look Ahead. CCFPD. February 5, 2001.

Foreign Policy Research

Gendered Discourses, Gendered Practices: Feminists (Re)Write Canadian Foreign Policy. Claire Turenne Sjolander, University of Ottawa; Heather Smith, University of Northern British Columbia; Deborah Stienstra, University of Winnipeg. May and July 2000.

Children's Rights

Children and Violent Conflict: Meeting the Challenge of Diversity. Erin Baines, Dalhousie University; Barry Burciul, University of Toronto. Summer 2000.

Business and Labour

Canadian Firms, Canadian Values. Canadian Business for Social Responsibility. May 2000.

Africa

Report from the Ottawa Nigeria Roundtable. CCFPD. March 20, 2000.

Asia-Pacific

APEC Media Monitoring Report: A Synopsis of Key Findings from IMPACS' 1999 Youth Internship Project. Institute for Media, Policy and Civil Society. 2000.

Report from the Burma and Drugs Roundtable. CCFPD. May 15, 2000.

Report from the North Korea Roundtable. CCFPD. January 22, 2001.

Report from the Victoria Roundtable on Indonesia. CCFPD. March 13, 2000.

Europe

Report on Cyprus: Living Together in the New Century Roundtable. CCFPD. February 14, 2000.

Americas

Canada, Indigenous Peoples and the Hemisphere Roundtable Report. CCFPD. March 23, 2000.

CCFPD Summary Report: The Americas. CCFPD. Fall 2001.

Rapport de synthèse du CCDPE: les Amériques. CCFPD. Fall 2001.

Threats to Democracy in America. Max Cameron, Canadian Foundation for the Americas (FOCAL). March 3-4, 2000.

Report from the Roundtable on Governance, Civil Society and the Americas. CCFPD. January 28, 2000.

Report from the Roundtable on Canada-Cuba Relations. CCFPD. January 18, 2000.

Look Ahead to Windsor Roundtable Report (OAS). CCFPD. April 26, 2000.

Culture

Commerce International et diversité culturelle: la recherche d'un difficile équilibre. Ivan Bernier, Université Laval and Dave Atkinson. 2000.

Circumpolar Issues

Roundtable on Northern Foreign Policy: Feedback and Look Ahead. CCFPD. February 5, 2001.

Foreign Policy Research

Gendered Discourses, Gendered Practices: Feminists (Re)Write Canadian Foreign Policy. Claire Turenne Sjolander, University of Ottawa; Heather Smith, University of Northern British Columbia; Deborah Stienstra, University of Winnipeg. May and July 2000.

LIBRARY E A/BIBLIOTHEQUE A E



3 5036 20065800 6

DATE DUE	DUE DATE
DATE DE RETOUR	
NOV 17 2002	

DOCS
CA1 EA752 99H72 ENG
Roundtable on Human Security and
Water-Related Conflict (1999 :
Ottawa, Ont.)
Human security and water-related
conflict Roundtable report
17923619