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Department of Foreign Affairs
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Ministère des Affaires étrangères
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**SEMINAR
on ENVIRONMENTAL
SECURITY**

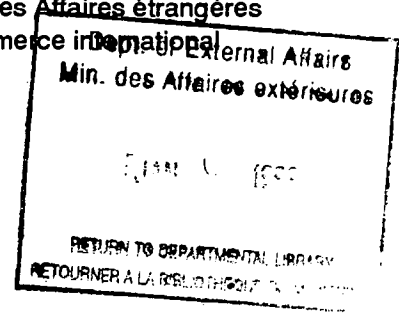
**SÉMINAIRE
sur la SÉCURITÉ
ENVIRONNEMENTALE**

29th of February 1996
29 février 1996

**PROCEEDINGS
ACTES**

**SERIES: SEMINARS and CONFERENCES
GLOBAL ISSUES BUREAU**

**SÉRIE: SÉMINAIRES et CONFÉRENCES
BUREAU des ENJEUX GLOBAUX**



FORWARD

Since the publication of the Brundtland Report in 1987, the concept of sustainable development has become widely accepted by the intellectual and policy-making community. However, the operationalization of ecological practices has given rise to an active debate. In other respects, in response to the radical changes which affect the international community and threaten the living conditions of states and their populations, Canadians have asked the government for an enlargement of the concept of security in order to include non-military factors. There is growing belief that for too long, those factors have been left aside in the analysis and resolution of conflicts. This, in a nutshell, represents the context in which the issue of "environmental security" has arisen.

There is no consensus to date on the elements of definition of environmental security. Without clarification of the sense and scope of this notion, choosing the best policies and instruments becomes difficult. Operational definitions on the issues of the security and protection of the environment and on sustainable development already exist. It is therefore legitimate to ask ourselves whether the term "environmental security" adds any value to our understanding of the problem and our ability to act.

The seminar on environmental security allowed us to address those issues. As you may note from the agenda attached, the first workshop set the basis for further discussion by concentrating on a global overview of the threatening ecological factors and situations and how these are linked to the development of conflicts. The elements of definition of the concept of environmental security were then considered during the second workshop. Finally, the third workshop was designed in a way that allowed the results of our discussions to be translated in policy ideas.

As the assistant deputy minister for the Global Issues bureau, I am pleased to have hosted this seminar, as there is no more global and complex issue as environment. In the bureau, environmental matters affect the work of all the divisions and environmental security is only one of the aspects of environmental concerns which deserves attention.

Marie Bernard-Meunier

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AVANT-PROPOS

Depuis la publication du Rapport Brundtland en 1987, le concept de développement durable fait partie du discours politique dominant bien que la mise en oeuvre de pratiques écologiques demeure l'objet d'un débat à finir. Par ailleurs, en réponse aux transformations radicales qui bouleversent la communauté internationale et menacent le bien-être des États et de leur populations, les Canadiens ont demandé au Gouvernement d'élargir le concept de sécurité de façon à prendre en compte les facteurs non-militaires jusqu'ici trop souvent écartés de l'analyse des conflits et de leur résolution. C'est dans ce contexte que la notion de "sécurité environnementale" a fait son apparition.

À ce jour, au delà de la rhétorique, la sécurité environnementale demeure un concept en mal de définition. Sans verser dans l'académique, à moins qu'un effort de clarification ne soit fait quant au sens et à la portée de la notion, l'élaboration et le choix d'instruments d'intervention resteront des exercices hasardeux, sinon futiles. Des définitions opératoires portant sur la sécurité de l'environnement, la protection de l'environnement et le développement durable existent déjà. Dans les circonstances, il y a lieu de se demander si le terme sécurité environnementale ajoute à notre compréhension et notre capacité d'agir.

Le séminaire sur la sécurité environnementale nous a permis de traiter ces questions. Comme peut en attester l'ordre du jour ci-joint, le premier atelier a constitué une introduction au problème environnemental en faisant état des facteurs et situations écologiques inquiétantes et leur lien avec l'émergence de conflits. Les éléments de définition du concept de la sécurité environnementale ont été l'objet des discussions du second atelier. Enfin, le troisième atelier était organisé de façon à nous permettre de traduire les résultats de nos discussions en options de politiques.

En tant que sous-ministre adjoint du bureau des Enjeux globaux, c'était un plaisir de présider ce séminaire, puisqu'il n'existe pas d'enjeu plus complexe et global que l'environnement. Les problèmes liés à l'environnement affectent le travail de toutes les directions du Bureau, et la sécurité environnementale ne représente qu'un des aspects de ceux-ci.

Marie Bernard-Meunier

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PROCEEDINGS

EXECUTIVE SUMMARY

This report presents the major priorities and policy responses discussed at the seminar on environmental security which was held on the 29th of February 1996 at the Department of Foreign Affairs and International Trade.

The concept of environmental security has acquired popularity over the last few years in the context of the post cold-war re-engineering of the international system. Issues such as environmental degradation have become high priorities and have promoted the flowering of international law, while at the same time, in the security field, un-conventional threats are now being studied seriously. The nature of foreign policy-making has been evolving rapidly and is increasingly geared towards influencing the way countries behave internally. In an attempt to reduce human suffering and financial costs, policy-makers have been investing a lot of efforts in the study of the roots of conflicts, and in the pursuit of preventive diplomacy. The research that is being done on the relationship between environmental stress and conflict, represents one example of this pro-active approach to foreign policy-making.

In terms of policy development, the novel concept of environmental security enriches the international debate on environmental issues only if it provides for a better understanding of what kind of instruments should Canada deploy to manage the environment as a factor in the security equation. The seminar has concluded to the effect that there is still a lack of consensus on what the concept should include. Some argue that human, rather than international, security should be the focal point, and that we need to push for a more global system of governance which would allow greater space for civic participation. Others, on the other hand, claim that foreign policy analysis should concentrate on the security of the international system, focussing on minimizing intra- and inter-state conflicts. This analysis would require a clear understanding of the links between environmental stress and conflict. If environment does play a role in the equation of security, is it a direct or indirect one? What crucial factors come into play? Because of the comprehensiveness of the concept of environmental security, it was suggested that a matrix be built, which would encompass all the elements, at every level of security, from local to global. It was also proposed that the gap between environmental and trade policies be bridged. This would ensure greater coherence and effectiveness in our foreign policy-making. Finally, because of the seemingly more altruistic motives behind environmental policies, it was argued that efforts to keep the public onside need to be increased.

**WORKSHOP 1:
IS THERE A CASE FOR STUDYING ENVIRONMENTAL SECURITY?****SUMMARY OF PAPERS PRESENTED:****Michael Keating: "Overview of threatening ecological factors and situations"**

Environment writer and consultant, Michael Keating is the project director and editor of *Canada and the State of the Planet*, currently undertaken by the Canadian Global Change Program.

In his paper, Michael Keating gives an overview of the environmental changes which have constituted issues of great concern over the last few years. He describes two driving forces behind environmental change: On the one side, there is high population growth in some parts of the world, and on the other side, there is increasing consumption of natural resources. The author states that the main issues of concern for our national security are disputes over mismanagement of oil and water supplies, and fish stocks. In the longer term, he argues that we ought to worry about the depletion of the ozone layer, global warming (which will increase the probability of natural disasters), and land degradation. He holds that these problems directly threaten our health, food supplies, economic development and enjoyment of life. If our current or potential partners slide into ecological decline, the author claims that this will trigger economic decline, provoking political instability that will hurt us economically and drag us into military and police actions around the world. To combat these problems, he argues that we need to implement all the decisions agreed to at the Rio Conference in 1992.

Valerie Percival: "Empirical Findings From Recent Research"

Valerie Percival works as a research assistant to Thomas Homer-Dixon on the Project on Population, Environment and Security linkages at the University of Toronto. The goal of this project is to gather, evaluate, integrate and disseminate information on causal linkages among population growth, renewable resource scarcities, migration and violent conflict. The case studies include Chiapas, Gaza, Pakistan, Rwanda and South Africa.

In her paper, Valerie Percival uses the conceptual approach of the Project on the case of South Africa. In particular, she addresses the complexity of the causal linkages between environmental scarcity and violent conflict, and the various contextual factors which must be part of the equation are highlighted. In this framework of analysis, environmental scarcity includes environmental degradation. It can be demand-pulled (population growth), supply-pushed (desertification, deforestation) or structurally-induced (unequal resource distribution). Percival argues that environmental scarcity is not the most important cause of conflicts today, but we cannot afford to neglect its effects anymore. She holds that environmental scarcity interacts with political, economic and social factors. It may cause anxiety and frustration in a particular group in society, and these feelings could be translated into instability when channelled through a social structure which allows for mobilisation and segregation amongst groups of similar political, economic or social interests. In reference to the case of South Africa, the author draws attention to the high expectations which were derived from the reform process of the 1980s, and the enhanced legitimacy of the state after the election of Nelson Mandela, as other factors which exacerbated or reduced violence in the country.

DISCUSSANT:

John Stone

John Stone is director of the Climate Research Division, at Environment Canada.

John Stone suggested that there are three elements to environmental security: distant early warning, national will, and the tools to do the job. Stone argued that science plays a large role in providing distant early warning. Scientists do this by monitoring the health of the planet (e.g. by measuring levels of carbon dioxide) and making hypotheses and models to make sense of the observations (He stated the examples of the global warming hypothesis, first propounded in 1896; or the model environment created by Environment Canada which is considered to be one of the best in the world and is capable of simulating the impact of an increase of carbon dioxide on climate). Stone claimed that scientists bring disturbing trends (such as the increasing levels of carbon dioxide) to the public's attention, estimating the size of the threat, when it will arrive, and how much it may cost to mitigate its effects.

COMMENTS FROM THE PARTICIPANTS:

Incorporating environmental considerations into conflict management strategies is somewhat complex. It is too simplistic to say that environmental degradation leads to conflict. People wish to gain access to a wide range of things, such as social, economic, and political rights, and not only a clean environment. At the seminar, there was consensus on the fact that we need to know what are the crucial factors that come into play.

The work which was undertaken by the team of researchers supervised by Thomas Homer-Dixon, from the University of Toronto, has attracted the attention of high-level policy-makers in North America and has been heavily publicised. It looks at the circumstances under which environmental scarcity plays a critical role in the development of conflicts, how it affects groups, segments them according to ethnic lines, and brings these tensions to the state level. Some had concerns as to the impact that this coverage may have had on the public. They argued that the team of researchers of Toronto may not have made clear that environmental scarcity is not always the cause of conflicts, and that consequently, this might have led to the public perception that environmental degradation is an imminent threat, an idea which the media has picked up and, they claim, projected as doom.

The examples given by Valerie Percival from the case studies illustrated the importance of considering the broad context in which many factors interact. For instance, during the period of increasing violence in South Africa, problems were driven by other sources than environment such as income distribution, government pensions, lack of access to cultural events, etc. (Empirical research has proven that 40% of the income of homeland based people came from government subsidies). Participants agreed that it is crucial to understand the impoverishment process in order to understand the fundamental problems.

In the case of Rwanda, the research of the University of Toronto concludes that the perpetrators of conflict were not the people who were suffering from environmental scarcity. The researchers found that environmental factors were only aggravating the crisis. As for Kenya, problems were rooted in poor institutional relationships and support. Interestingly, the research shows that population growth in this country has had the positive impact of stimulating food production to the extent that the country is now exporting food.

**WORKSHOP 2:
ENVIRONMENTAL SECURITY: DEFINITION OF TERMS**

SUMMARY OF PAPERS PRESENTED:

Paul Painchaud: "The Elements of Definition of Environmental Security"

Paul Painchaud is professor of Political Science at Laval University, in Quebec city. He is currently director general of the International Institute for Environmental Strategies and Security, which is based at Laval University and brings together close to a hundred research institutions from around the world.

Of the numerous debates that exist in the academic community and in governmental institutions on the notion of environmental security, there is one consensus: experts need to agree on the different concepts to which they refer regularly before translating environmental security into practical policies. Painchaud presents an explanation of these concepts in his text. He first goes back to define both security and insecurity, in order to illustrate different interpretations of environmental security. He talks about the subjective aspect of the concept, and notes the differences between perceived risks, threats or disasters, and problems. He shows that the complexity of the issue is further illustrated by the role that values and national interests play. The author then considers the different levels of intervention which are appropriate at a given period of time. These distinctions highlight the range of policy options which become proper to use in each situation. Painchaud recommends that policy-making institutions abide by certain guidelines which could be outlined in a "Green Book". Among them, the author suggests a clearer, hierarchical ordering of priorities that proceeds from a vision of Canada's environmental security needs; a greater distinction between environmental strategy and diplomacy; and the integration of the environmental factor into the discussions of other fora such as arms proliferation.

Steve Lonergan: "The Relationship Between Environmental Security and Sustainable Development"

Steve Lonergan is a professor in the Department of Geography of the University of Victoria, B.C. Over the last few years, Lonergan has been working closely with the

International Development and Research Centre and the Canadian Global Change Program, on matters of environment and security.

The Brundtland Report of 1987 introduced the concept of sustainable development, which has sought to illustrate the importance of considering the needs of future generations when pursuing our current policies. This new approach to development was also paralleled by the rise of un-conventional threats to security. Among those, Lonergan argues that the issue of environmental security has become increasingly popular. However, because of their comprehensiveness, he claims that both these concepts have proven difficult to operationalize in policy-making. In his paper, Lonergan argues that the two concepts are linked by the common emphasis that they place on human security (which he defines as an integrative concept which encompasses personal, social, economic, health and environmental concerns). First, he argues that sustainable development provides normative guidelines to attain the goal of human security and that environmental security provides a framework of analysis by focusing on root causes of insecurity. In his paper, Lonergan also gives an overview of the different waves in the evolution of the research on environmental security. He strongly advocates what he calls the "Third Wave" of research, which concentrates on regional (decided on the basis of eco-geography) conflicts by looking at a range of possible causes with a broader human security perspective.

DISCUSSANT:

Philippe Le Prestre

Philippe Le Prestre is professor of Political Science at "l'Université du Québec à Montréal" (UQAM). He is also director of CEPES, Research Centre on International and Canadian Foreign Policy.

Le Prestre suggested that there is still work to be done on the definition of the term "environmental security" since there is no consensus on the meaning of the concept. In order to determine which definition makes sense from a Canadian foreign policy perspective, Le Prestre argued that one must decide whether it is the security of (a) the environment, (b) the individual, (c) the state, or (d) the international system with which "environmental security" is concerned. Environmental security as security of (a) the environment, he held, means that the goal is to protect the environment per se, through policies such as strengthening international environmental law. As these are traditional foreign policy issues, he argued that environmental security as a concept

would add nothing new. Environmental security as (b) the security of the individual, he believed, provides us with an overinclusive definition of security; he asked, if religious fundamentalism, human rights and poverty are security threats, what is not? Environmental security as (c) the security of the state, Le Prestre claimed, requires an analysis of issues which directly affect us, such as safeguarding access to resources important for Canada and the impact of global atmospheric change on Canadian security, and leaves open the question whether, for example, the flooding of small island states is a Canadian security issue (as opposed to a moral one). Finally, environmental security as (d) the security of the international system (i.e. as international order), focuses on minimizing interstate conflicts and Le Prestre argued that it is the perspective with the most to offer to foreign policy analysis. However, he noted that the value of some case studies in this area have been questioned, with critics saying the causal link (environmental degradation causes conflict) has not been proven.

Le Prestre believed that environmental security could make sense as an aspect of Canadian foreign policy if it is understood to pertain to direct threats to individuals from pollution and conflicts between Canada and other states over resources. Environmental security could also provide a new framework for governmental and non-governmental action in the field of the environment; and allow for an extension of cooperative security to the promotion of the resolution of political conflicts through environmental cooperation.

COMMENTS FROM THE PARTICIPANTS:

The enlargement of the concept of security over the last few years has given rise to a great array of interpretations. This ongoing debate was illustrated during the seminar. With regards to the concept of human security, the participants did not agree on what elements should be included in its definition. Some stressed the importance of agreeing on an operational concept and not confusing the terms security and safety, while others argued against narrowing the concept down since all the elements relate to each other. Our security is threatened by our ability to live here as we currently do, and enjoy at least the same level of standard of living. For that reason, some claimed that one should focus on the local level rather than on the international level, an approach which will also allow us to enrich our knowledge of local level issues.

As far as the environment is concerned, it was argued that we should not talk about "environmental factors" as if they were all the same. Some distinguished two

types of environmental impacts: a) the direct environmental impacts that come from human behaviour (e.g. Nigeria: conflict between the land-based people and the multinational corporations), and b) the indirect environmental impacts, such as ozone depletion or climate change, which are primarily driven by industrialised countries.

Another suggestion was to adopt a broader definition of environment, which would go beyond the "traditional" idea that environment is about nature. The argument was that there are two other types of environment other than nature: a) the symbolic environment e.g. landscape, monuments, etc. This school of thought believed that the Oka conflict was environmental because it was about a cemetery that was very important to the inhabitants; and b) the built environment e.g. cities. They pointed to the fact that 70% of the population will live in cities in the near future and that 50 % of the agenda of Habitat II refers to environmental issues. They held that resources are not the same as the environment, and conflicts about resources are not all related to the environment.

The participants recognized that environmental security is an increasingly important concept as we approach the 21st century. How it is defined is therefore vital because of policy implications. While environmental security entails the management and sustainable use of natural resources and biodiversity, participants agreed that it goes beyond that and stressed the importance of other issues such as respect for human rights and basic cultural and economic needs.

Yet, the debate goes on. Should we link environmental security to human security? What are the impoverishment processes not linked to human control? And what about the empirical studies on the environmental component of conflicts? Some participants believed that the word conflict should not be used as a criteria to discuss environmental security as, they argued, it illustrates only one aspect of the issue. In an attempt to consolidate the different approaches to the concept, the idea was brought up that it would be useful to consider a matrix. It would illustrate the interactions between different components of national and human security on one axis, and local and global environmental factors on the other. Moreover, it was claimed that this approach would further contribute to establish a distinction between national environmental security issues and those at the international level.

**WORKSHOP 3:
POLICY RESPONSES TO ENVIRONMENTAL DEGRADATION AS A
THREAT TO INTERNATIONAL AND NATIONAL SECURITY**

SUMMARY OF PAPERS PRESENTED:

Robert McRae: "The Global Security Agenda"

Robert McRae is currently director of the Political and Security Policy Division at the Department of Foreign Affairs and International Trade.

In recent years, McRae argues, global economic, cultural, environmental and political trends have had an impact on decision-making within nation-states. Moreover, he notes that the nature of the different actors involved has evolved from government representatives to include multinational corporations, currency traders, and non-governmental organisations, to name a few. The interactive process of globalization has closed the loop from local to global phenomena. The author argues that environmental degradation and its impact on security has become a paradigm of this process. In terms of foreign policy instruments, McRae argues that we have witnessed the flowering of international laws, the multiplication of attention-seeking and consensus-building world summits, and that we have yet to get accustomed to a new form of foreign policy-making which is less directed to influencing the way countries behave externally, but rather to influencing their internal make-up. In times of financial constraints, the altruistic motives behind this type of foreign policy-making are hard to sell domestically. In his text, McRae explains this new dynamism which has developed in the international system and proposes some possible avenues that Canada could explore in order to make the most of these changes. He suggests that Canada give priority to those countries that are key developing countries, have regional influence or leadership, or whose environment affects the global commons. He claims that Canada should also use its resources to reinforce democratic progress and freer markets; support reform of the United Nations, create with like-minded countries effective international instruments that are not necessarily broadly based but which work well, and work with others to hasten the arrival of a global civic society.

Peter Padbury: "Canada's Role in the International Debate on Environmental Security"

Peter Padbury is a researcher based at the Canadian Council for International Cooperation, Ottawa.

Padbury notes that, in recent years, the globalization process has meant that national policy formulation has become more complex. In his paper, he claims that national governments are increasingly pushed by international forces. Environmental security is one example of how domestic policies might have international repercussions. The main problem, the author argues, is that the actual system of global governance is not capable of dealing with emerging global issues such as environmental security, as it is organized in a way which promotes short term national interests. The author advocates a more active role for non-governmental organisations. These organisations, he argues, could provide the debate with valuable insights and make the United Nations more transparent and accountable; they could also participate in the financing of programmes, if they feel they are listened to.

DISCUSSANT:**David Runnalls**

David Runnalls is a consultant who has worked extensively on issues related to environment and security. He is currently a fellow at the International Institute for Sustainable Development, Winnipeg, and a senior advisor at the International Development and Research Centre.

Runnalls stressed the real need for a continuing dialogue in order to find a way to nurture research capacity. He observed that there are different avenues by which one may promote greater environmental standards. First, he noted that the environmental cycle and the economic cycle are two or three years apart, which means that people forget about the environment when the economy goes sour, and that we need some kind of disaster to trigger environmental concerns again. Second, he believed that there is a consensus that some issues have a clear impact on security (ozone depletion, climate change) and claimed that what is needed is a transparent process. Third, he argued that the United Nations financial crisis has provided the opportunity to reform the system. Rather than increasing civilian participation, he suggested that we could increase the influence of the departments of Foreign Affairs and Finance. Fourth, Runnalls did not agree that there is a money problem. As example, he stated that subsidies are given to

oil and fuel industries. He believed that trade liberalisation without environmental safeguards is a disaster in waiting. According to Runnalls, Canada has been poor at addressing this issue, and so has the World Trade Organization. Furthermore, he argued that the multilateral system and the trading system are segregated. For example, the Uruguay Round was coming to an end at the same time that a lot of attention was being paid to the establishment of the new Biodiversity Secretariat, yet Runnalls noted that no connection was drawn between the two. He held that Canada could play an important role in bridging this gap. Finally, in order to gather public support, he believed that one needs to find a way to define these concepts so that they are relevant to Canadians.

COMMENTS FROM PARTICIPANTS:

There was a consensus that, because Canadian interests are global, policy-makers have to, first, adopt a more global, long-term perspective and second, plan in a more pro-active way. Preventive diplomacy is the key to savings in both human suffering and money, they argued. Participants stressed that the issue of environmental security gives us the chance to take preventive action. Furthermore, some brought to attention the fact that the process of policy-making in itself brings countries together, often across North-South lines.

For some participants, the challenge now is how to bring the public onside. Part of the problem, they claimed, is that the media has not been doing its job. For example, while there is now a consensus that global warming is happening, the problem of emerging diseases has not come up in the context of global warming. They stressed the need to grab the public's attention, communicate clearly and effectively, and make the environment an important issue. Identifying the role of environmental degradation in conflict is certainly valid, but some participants believed it is crucial to change the way that people think. The question, they acknowledged, is: how do we build environmental support for a concept that is not as clear and neat as we would like it to be? We need credible spokespersons to advance the issue, they claimed.

Another problem that was felt is the segregation of policy discussions in multilateral fora. As example, some brought attention to the fact that United Nations discussions on sustainable development have been separate from discussions by the Security Council on Haïti, as well as from other security discussions, and non-governmental organisations have had no access to organizations such as the World Trade Organization. They noted that often, development and environment people work

separately. This segregation, they claimed, has led to policy incoherence, which suggests that policy-makers need to switch their focus to human centered development, as it was done at the Social Summit.

There are a number of things that can be done that are not difficult, participants acknowledged, such as adopting simple solutions in developing countries and undertaking critical areas of research that are not now considered cost-effective. They stressed the importance of recognizing that environmental security is not only internal, but external, too; for example, they stated that the destabilizing effects of structural adjustment programs may break down social structures and contribute to environmental insecurity. They suggested to follow two levels of strategy: one which deals with direct environmental threats to Canada, such as ozone depletion, and one which deals with indirect threats, such as tensions over water in the Middle East.

On the links between the concepts of environmental security and sustainable development, the opinions differed. Some participants argued that wherever the link between environmental degradation and conflict is assumed, sustainable development may be interpreted as the long term negation of conflict. Others had great reservations about linking the concepts together in this way. For example, in the Arctic, access to food is a security issue (because it has to do with survival), and concrete steps, such as supporting research and dealing with the countries which pollute the food chain, must be taken to solve the problem. Sustainable development as such does not provide the appropriate tools for addressing this case, and they claimed that a complementary approach is needed.

CLOSING REMARKS:

Marie Bernard-Meunier

Marie Bernard-Meunier is currently the Assistant Deputy Minister for the Global Issues and Culture Bureau.

In her closing remarks to the seminar, Marie Bernard-Meunier stressed four main points: first, she acknowledged that while Canada cannot be everywhere, it can do more. Second, she noted that the concept of security was often used during the seminar to describe safety issues. This came as a surprise, she claimed, as despite the objectives of the seminar, the links between environmental stress and conflict did not turn out to be the main subject of the debate. She suggested that this may be explained by the fact that one cares more about what is closer to him/her, what he/she can perceive as a real threat. Third, she felt that there was a consensus about the shortcomings of the international system. She suggested that even if there is room for improvement both in finance and governance issues, one should not be too optimistic about the possibilities for change. She pointed to the violent reaction to the recently proposed Tobin Tax as an example. Finally, she agreed that the links between trade and environmental policies have to be better understood. While, she acknowledged, trade liberalisation has to be encouraged, it should not be perceived as the solution to all problems. She concluded that we have to be cautious in our reaction to liberalization and globalization as they impact on matters which Canadians and others consider to be of prime importance.

ACTES

RÉSUMÉ

Le présent rapport expose les grandes priorités et les principales propositions d'orientations dont ont discuté les participants au séminaire sur la sécurité environnementale qui a eu lieu le 29 février 1996 au ministère des Affaires étrangères et du Commerce international.

Le concept de la sécurité environnementale est devenu de plus en plus populaire au cours des dernières années à la faveur de la réorganisation du système international de l'après-guerre froide. Des problèmes tels que la dégradation de l'environnement sont passés aux premiers rangs des priorités et ont favorisé l'épanouissement du droit international ainsi que l'étude approfondie des menaces non classiques à la sécurité. La nature des décisions en matière de politique étrangère s'est rapidement transformée et celles-ci visent de plus en plus fréquemment à infléchir les comportements internes des pays. Soucieux de réduire la souffrance humaine et les coûts financiers, le Canada a consacré beaucoup d'efforts à l'étude des origines des conflits ainsi qu'à la diplomatie préventive. Les recherches en cours sur les rapports entre le stress environnemental et l'émergence d'un conflit montrent en quoi cette méthode proactive peut orienter les décisions en matière de politique étrangère.

En ce qui concerne l'élaboration des politiques, le nouveau concept de sécurité environnementale ne peut enrichir le débat international sur les problèmes touchant l'environnement que s'il permet de mieux déterminer les genres d'instruments dont le Canada doit se doter pour gérer l'environnement en tant que facteur de l'équation de la sécurité. Les participants au séminaire sont parvenus à la conclusion qu'il n'y avait pas encore de consensus sur les éléments que devrait englober ce nouveau concept. Certains soutiennent que c'est la sécurité humaine, plutôt que la sécurité internationale, qui devrait être le point central et que nous devons travailler à instaurer un système de gestion publique plus global qui ferait une plus grande place à la participation de la société civile. Par contre, d'autres affirment que l'analyse des politiques étrangères devrait être axée sur la sécurité du système international, et que l'accent devrait être mis sur la neutralisation des conflits intra- et inter-étatiques. Cette analyse exigerait une bonne compréhension des liens qui existent entre le stress environnemental et l'émergence d'un conflit. Si l'environnement joue un rôle dans l'équation de la sécurité, s'agit-il d'un rôle direct ou indirect? Quels sont les facteurs déterminants qui entrent en jeu? Compte tenu de la portée du concept de la sécurité environnementale, certains ont proposé d'élaborer une matrice qui engloberait tous les éléments, à tous les niveaux de sécurité,

de l'échelon local à l'échelon international. Il a également été proposé de réduire l'écart entre les politiques environnementales et les politiques commerciales, de façon à doter nos décisions en matière de politique étrangère d'une plus grande cohérence et d'une meilleure efficacité. Enfin, parce que les politiques environnementales semblent s'inspirer de motivations plus altruistes, certains ont soutenu qu'il fallait déployer davantage d'efforts pour bien informer le public. Le stress environnemental a trop souvent été source de sensationnalisme. C'est une question qui devrait être abordée plus régulièrement et plus sérieusement par les médias.

**ATELIER 1 :
Y A-T-IL LIEU D'ÉtudIER LE CONCEPT DE SÉCURITÉ
ENVIRONNEMENTALE?****RÉSUMÉ DES TEXTES PRÉSENTÉS:****Michael Keating: « Survol global des facteurs et situations écologiques inquiétantes »**

Rédacteur et consultant dans le domaine de l'environnement, Michael Keating est présentement directeur de projet et éditeur d'une étude sur *Le Canada et l'état de la planète*, menée dans le cadre du Programme canadien des changements à l'échelle du globe.

Dans son texte, Michael Keating passe en revue les changements environnementaux qui ont suscité de grandes préoccupations ces dernières années. Il décrit deux éléments moteurs du changement environnemental : d'une part, la forte croissance démographique dans certaines régions du monde et, d'autre part, l'exploitation accrue des ressources naturelles. L'auteur affirme que les principaux problèmes qui menacent notre sécurité nationale sont les différends que suscite la mauvaise gestion de nos réserves d'eau et de pétrole, ainsi que de nos stocks de poissons. À plus long terme, affirme-t-il, nous devrions nous inquiéter de l'érosion de la couche d'ozone, du réchauffement de la planète (qui augmentera la probabilité de catastrophes naturelles) et de la dégradation des sols. Selon lui, ces problèmes menacent directement notre santé, nos ressources alimentaires, notre développement économique et notre qualité de vie. Si nos partenaires actuels ou éventuels laissent leur environnement se dégrader, soutient l'auteur, il s'ensuivra un déclin économique; ce dernier provoquera une instabilité politique qui affaiblira notre économie et nous entraînera dans des interventions militaires et policières à la grandeur de la planète. Afin de lutter contre ces problèmes, nous devons, dit-il, nous empresser de mettre en œuvre toutes les décisions prises à la Conférence de Rio, en 1992.

Valerie Percival: « Constatations empiriques: Les liens entre la dégradation de l'environnement et les conflits violents »

Valerie Percival travaille pour Thomas Homer-Dixon, à l'Université de Toronto, à titre d'adjointe à la recherche du projet sur les liens entre la population, l'environnement

et la sécurité. Ce projet a pour objectif de réunir, évaluer, intégrer et diffuser de l'information sur les liens de causalité entre la croissance démographique, la rareté des ressources renouvelables, les migrations et les conflits violents. Le Chiapas, la bande de Gaza, le Pakistan, le Rwanda et l'Afrique du Sud figurent parmi les études de cas.

Dans son texte, Valerie Percival explique l'approche conceptuelle des études de cas réalisées dans le cadre du projet et donne comme principal exemple empirique celui de la situation en Afrique du Sud. Elle souligne tout particulièrement la complexité des liens de causalité entre la rareté des ressources environnementales et les conflits violents et met en évidence les différents facteurs contextuels dont il faut tenir compte dans l'équation. Dans ce schéma d'analyse, la rareté des ressources environnementales englobe la dégradation de l'environnement. Cette dégradation peut être provoquée par la demande (croissance démographique), par l'approvisionnement (désertification, déforestation) ou elle peut être d'origine structurelle (répartition inégale des ressources). Percival soutient que si aujourd'hui la rareté des ressources environnementales n'est pas la principale cause des conflits, nous ne pouvons cependant nous permettre d'en négliger les effets plus longterms. Elle affirme que la rareté des ressources environnementales interagit avec les facteurs politiques, économiques et sociaux. Cette rareté peut causer de l'anxiété et de la frustration au sein d'un groupe particulier de la société, et ces sentiments peuvent créer un climat d'instabilité si la structure sociale en place favorise la mobilisation et la ségrégation parmi les groupes ayant des intérêts politiques, économiques ou sociaux semblables. Faisant référence au cas de l'Afrique du Sud, l'auteure attire l'attention sur les grands espoirs qu'a suscités le processus de réforme des années 1980, ainsi que sur la légitimité accrue de l'État après l'élection de Nelson Mandela, qui sont d'autres facteurs susceptibles d'exacerber ou d'atténuer la violence dans le pays.

COMMENTAIRE:

John Stone

John Stone est directeur de la Direction de la recherche climatologique à Environnement Canada.

Selon John Stone, la sécurité environnementale repose sur trois éléments : l'alerte précoce, la volonté nationale et les outils de travail. Il soutient que la science joue un grand rôle au chapitre de l'alerte précoce. Les scientifiques surveillent l'état de santé de

la planète (par ex., en mesurant les concentrations de dioxyde de carbone) et proposent des hypothèses et des modèles pouvant expliquer les observations (à titre d'exemples, i) c'est en 1896 qu'a été avancée pour la première fois l'hypothèse du réchauffement de la planète; et aussi, ii) l'environnement modèle créé par Environnement Canada est considéré comme l'un des meilleurs au monde et est capable de simuler l'effet sur le climat d'une augmentation du dioxyde de carbone dans l'atmosphère). À son avis, les scientifiques attirent l'attention du public sur des tendances perturbatrices (telles que l'augmentation des concentrations de dioxyde de carbone), estiment la gravité d'une menace, le moment où elle se matérialisera ainsi que les coûts probables pour en atténuer les effets.

COMMENTAIRES DES PARTICIPANTS:

L'intégration de considérations environnementales dans les stratégies de gestion des conflits est un exercice complexe. Il est trop simpliste d'affirmer que la dégradation de l'environnement provoque des conflits. Les populations veulent qu'on leur reconnaisse des droits de tous genres, notamment des droits sociaux, économiques et politiques, et la protection de l'environnement n'est pas leur seule préoccupation. Les participants au séminaire ont reconnu unanimement qu'il fallait cerner avec précision les principaux facteurs en jeu.

Les travaux de l'équipe de chercheurs dirigée par Thomas Homer-Dixon, à l'Université de Toronto, ont retenu l'attention de politiciens de haut niveau en Amérique du Nord et ont été l'objet d'une vaste publicité. L'équipe de recherche s'intéresse aux circonstances dans lesquelles la rareté des ressources environnementales joue un rôle déterminant dans l'émergence de conflits, examine comment cette rareté touche les groupes, les divise selon leur appartenance ethnique et répand ces tensions à l'échelle du pays. Certains s'inquiètent de l'impact que peut avoir cette couverture médiatique sur le public. Selon eux, l'équipe de chercheurs de Toronto n'a peut-être pas expliqué clairement que la rareté des ressources environnementales n'est pas toujours la cause des conflits. Par conséquent, la publicité faite à ces travaux a peut-être incité le public à penser que la dégradation de l'environnement constituait une menace imminente de conflit, une idée que les médias ont reprise et, selon eux, présenté comme une catastrophe.

Tirés des études de cas, les exemples donnés par Valerie Percival illustrent l'importance de l'examen du contexte général dans lequel interagissent de nombreux

facteurs. Ainsi, pendant la période de recrudescence de la violence en Afrique du Sud, certains des problèmes découlaient de sources autres que l'environnement, telles que la répartition des revenus, les pensions du gouvernement, l'accès difficile aux événements culturels, etc. (Des recherches empiriques ont prouvé que 40 % des revenus des habitants des Bantoustans provenaient de subventions de l'État). De l'avis des participants, il est très important de comprendre le processus d'appauvrissement si l'on veut comprendre les problèmes fondamentaux.

Dans le cas du Rwanda, la recherche menée à l'Université de Toronto a révélé que les initiateurs du conflit n'étaient pas des gens qui souffraient de la rareté des ressources environnementales. Les chercheurs ont découvert que les facteurs environnementaux n'avaient fait qu'aggraver la crise. Au Kenya, les problèmes tiraient leur origine de la médiocrité des relations institutionnelles et du soutien administratif. Fait intéressant, l'étude a montré que la croissance démographique dans ce pays avait eu un effet favorable, celui de stimuler la production d'aliments à un point tel que le pays exporte maintenant des produits alimentaires.

ATELIER 2: LA SÉCURITÉ ENVIRONNEMENTALE: DÉFINITION DES TERMES

RÉSUMÉ DES TEXTES PRÉSENTÉS:

Paul Painchaud: « Les éléments de définition de la sécurité environnementale »

Paul Painchaud est professeur de sciences politiques à l'Université Laval, à Québec. Il est présentement directeur général de l'Institut international de stratégies et de sécurité de l'environnement dont les bureaux sont situés à l'Université Laval et qui regroupe près d'une centaine d'institutions de recherche de différents pays du monde.

La notion de sécurité environnementale suscite de nombreux débats au sein de la communauté universitaire et des institutions gouvernementales; les experts reconnaissent unanimement la nécessité de s'entendre d'abord sur les différents concepts auxquels ils se réfèrent couramment avant que la sécurité environnementale ne devienne l'objet de politiques concrètes. Dans son texte, Painchaud explique ces concepts. Il commence par définir les notions de sécurité et d'insécurité afin d'illustrer les différentes interprétations de la sécurité environnementale. Il rappelle l'aspect subjectif de ce concept et relève les différences entre les risques, les menaces ou les catastrophes perçues, et les problèmes. Selon lui, le rôle que jouent les valeurs et les intérêts nationaux ajoute encore à la complexité de la question. L'auteur examine ensuite les différents niveaux d'intervention possibles à une période donnée. Ces distinctions mettent en lumière les actions possibles dans chacune des situations. Painchaud recommande que les institutions chargées d'élaborer des politiques se soumettent à un certain nombre de lignes directrices qui pourraient être énoncées dans un « livre vert ». Ces lignes directrices pourraient, entre autres, établir plus clairement l'ordre des priorités découlant de la vision que l'on a des besoins du Canada en matière de sécurité environnementale ou une distinction plus nette entre les notions de stratégie et de diplomatie environnementales. Cet outil serait d'autant plus utile pour intégrer le facteur environnemental dans les discussions ou dans d'autres forums, notamment ceux qui touchent à la prolifération des armes.

Steve Lonergan: « La relation entre la sécurité environnementale et le développement durable »

Steve Lonergan est professeur au département de géographie de l'Université de Victoria, en Colombie-Britannique. Au cours des dernières années, le professeur Lonergan a travaillé avec le Centre de recherches pour le développement international ainsi qu'avec les responsables du Programme canadien des changements à l'échelle du globe, sur des questions touchant l'environnement et la sécurité.

C'est le Rapport Brundtland qui a introduit, en 1987, le concept de développement durable qui soulignait l'importance de la prise en compte, dans nos politiques, des besoins des générations futures. Parallèlement à cette nouvelle approche du développement, on a vu apparaître des menaces non classiques à la sécurité. Parmi celles-ci, soutient Lonergan, la question de la sécurité environnementale est devenue de plus en plus populaire. Mais à cause de leur portée, ces deux concepts se sont avérés difficiles à traduire en politiques. Dans son texte, Lonergan affirme que les deux concepts se rejoignent dans la très grande importance qu'ils accordent à la sécurité humaine (qu'il définit comme un concept d'intégration qui englobe des préoccupations personnelles, sociales et économiques ainsi que des préoccupations relatives à la santé et à l'environnement). Premièrement, il affirme que le développement durable fournit des lignes directrices normatives afin d'atteindre l'objectif de la sécurité humaine, et que la sécurité environnementale propose pour sa part un cadre d'analyse en s'attachant surtout aux causes profondes de l'insécurité. Dans son document, Lonergan donne également un aperçu des différentes phases de l'évolution de la recherche sur la sécurité environnementale. Il est fermement convaincu que nous sommes entrés dans la « troisième vague » de la recherche qui s'intéresse surtout aux conflits régionaux (définis en fonction de l'écogéographie) en examinant les différentes causes possibles dans une conception plus large de la sécurité humaine.

COMMENTAIRE:

Philippe Le Prestre

Philippe Le Prestre est professeur de sciences politiques à l'Université du Québec à Montréal (UQAM). Il est également directeur de recherches au CEPES, le Centre d'étude des politiques étrangères et de sécurité.

Selon Le Prestre, il reste encore du travail à faire pour définir le terme « sécurité environnementale », car la signification de ce concept ne fait pas l'unanimité. Le Prestre soutient qu'afin de choisir la définition qui colle le mieux à la conception canadienne de la politique étrangère, il faut d'abord décider si la « sécurité environnementale » concerne la sécurité a) de l'environnement, b) de la personne, c) de l'État ou d) du système international. À son avis, la sécurité environnementale en tant que sécurité de l'environnement signifie que l'objectif est d'adopter des politiques visant à protéger l'environnement, notamment des politiques qui favorisent un plus grand respect du droit international de l'environnement. Comme ces questions sont déjà prises en compte dans la politique étrangère traditionnelle, la sécurité environnementale ainsi comprise n'apporterait selon lui rien de nouveau. La définition de la sécurité environnementale comme étant la sécurité de la personne lui semble toutefois trop englobante; si l'intégrisme religieux, les violations des droits de la personne et la pauvreté menacent la sécurité, quels éléments ne constituent pas des menaces? demande Le Prestre. Si l'on définit la sécurité environnementale comme la sécurité de l'État, affirme-t-il, il faut d'abord analyser les questions qui nous touchent directement, notamment la protection de l'accès aux ressources importantes pour le Canada et l'impact des changements atmosphériques planétaires sur la sécurité canadienne, et continuer de se demander si, par exemple, l'inondation de petits États insulaires est une question liée à la sécurité du Canada (plutôt qu'une question morale). Enfin, la sécurité environnementale conçue comme étant la sécurité du système international (c'est-à-dire l'ordre international) cherche surtout à diminuer au minimum les conflits inter-étatiques et, selon Le Prestre, ce point de vue est le plus intéressant pour les analystes de la politique étrangère. Il fait toutefois remarquer que des réserves ont été exprimées quant à la valeur de certaines études de cas réalisées dans ce domaine, et que des critiques estiment que le lien de causalité (entre la dégradation de l'environnement et l'émergence de conflits) n'a pas été prouvé.

Selon Le Prestre, la sécurité environnementale pourrait constituer l'un des aspects de la politique étrangère canadienne à la condition d'être définie en fonction des menaces directes pour la personne, issues de la pollution et des conflits entre le Canada et d'autres pays attribuables aux ressources. La sécurité environnementale pourrait également fournir un nouveau cadre pour l'action gouvernementale et non gouvernementale dans le domaine de l'environnement; elle pourrait aussi permettre d'élargir le concept de sécurité coopérative pour englober les activités faisant appel à la coopération environnementale pour résoudre des conflits politiques.

COMMENTAIRES DES PARTICIPANTS:

L'élargissement du concept de sécurité au cours des dernières années a donné prise à de multiples interprétations. Les opinions exprimées au cours du séminaire sont à l'image du débat en cours. En ce qui concerne le concept de sécurité humaine, les participants ne s'entendent pas sur les éléments qui devraient être inclus dans sa définition. Certains rappellent qu'il est important de se mettre d'accord sur un concept opérationnel et de ne pas confondre les termes sécurité et sûreté, tandis que d'autres maintiennent qu'il ne faut pas restreindre la portée du concept puisque tous les éléments se rattachent les uns aux autres. Le seul fait de vivre ici comme nous le faisons présentement et de jouir tout au moins du même niveau de vie constitue une menace à notre sécurité. C'est pour cette raison, affirment certains, qu'il nous faut concentrer nos efforts à l'échelon local plutôt qu'à l'échelon international, car une telle approche nous permettra aussi d'enrichir notre connaissance des questions locales.

En ce qui concerne l'environnement, certains affirment qu'il ne faut pas mettre tous les « facteurs environnementaux » sur le même plan. Ils distinguent deux catégories d'impacts sur l'environnement : a) les impacts directs qui découlent de comportements humains (par ex., au Nigeria, le conflit entre les collectivités qui exploitent les ressources naturelles et les sociétés multinationales); b) les impacts indirects tels que l'érosion de la couche d'ozone ou les changements climatiques, qui sont attribuables principalement aux pays industrialisés (par ex., les îles Maldives qui risquent d'être englouties par les eaux).

D'autres suggèrent d'adopter une définition plus large de l'environnement, qui dépasserait l'association « classique » de l'environnement et de la nature. Outre la nature, on pourrait reconnaître l'existence de deux sortes d'environnement : a) l'environnement symbolique, par ex. les paysages, les monuments, etc. Les tenants de cette école de pensée affirment que le conflit d'Oka était un conflit environnemental puisque l'enjeu était un cimetière auquel les habitants de cette région accordaient beaucoup d'importance; b) l'environnement construit, par ex. les villes. Dans un proche avenir, rappellent certains, 70 % de la population vivra dans les villes, et par conséquent, 50 % des questions à l'ordre du jour d'Habitat II concernent des problèmes environnementaux. Certains tiennent à faire une distinction entre les ressources et l'environnement, et soutiennent que les conflits au sujet des ressources ne sont pas tous liés à l'environnement.

De l'avis des participants, la sécurité environnementale est un concept de plus en plus important en cette veille du XXI^e siècle. La manière de définir cette sécurité influe donc de façon déterminante sur les orientations politiques qui seront retenues. La sécurité environnementale englobe la gestion et l'utilisation durable des ressources naturelles et de la biodiversité, mais elle dépasse ces notions et rappelle l'importance d'autres questions telles que le respect des droits de la personne et les besoins culturels et économiques fondamentaux.

Mais le débat demeure ouvert. Faut-il lier la sécurité environnementale à la sécurité humaine? Quels processus d'appauvrissement échappent au contrôle humain? Et que penser des études empiriques sur l'aspect environnemental des conflits? Certains croient que le mot conflit ne devrait pas être retenu comme critère lorsqu'il est question de sécurité environnementale, car le conflit n'est qu'un aspect de la question. Afin de tenter d'harmoniser les différentes définitions du concept, il pourrait être utile d'envisager la préparation d'une matrice. Sur un axe de cette matrice seraient portées les interactions des différents éléments de la sécurité nationale et humaine, tandis que sur l'autre figureraient les facteurs environnementaux locaux et internationaux. En outre, cette approche, comme certains l'ont fait remarquer, aiderait à établir une distinction entre les questions nationales et internationales en matière de sécurité environnementale.

**ATELIER 3:
RÉPONSES POLITIQUES AU PROBLÈME DE LA DÉGRADATION DE
L'ENVIRONNEMENT COMME MENACE À LA SÉCURITÉ NATIONALE ET
INTERNATIONALE**

RÉSUMÉ DES TEXTES PRÉSENTÉS:

Robert McRae : « Instruments de politique étrangère »

Robert McRae est actuellement directeur de la Direction des affaires politiques et de la politique de sécurité au ministère des Affaires étrangères et du Commerce international.

M. McRae fait observer qu'au cours des dernières années, les tendances mondiales dans les domaines économique, culturel, environnemental et politique ont eu un impact sur la prise de décision au sein des États-nations. De plus, fait-il remarquer, les acteurs ne sont plus les mêmes : aux représentants gouvernementaux se sont ajoutés des sociétés multinationales, des cambistes et des organisations non gouvernementales, pour n'en nommer que quelques-uns. Le processus interactif de mondialisation a fait en sorte qu'on ne peut plus détacher le phénomène local du phénomène mondial. L'auteur est d'avis que la dégradation de l'environnement et ses répercussions sur la sécurité sont devenus un paradigme de ce processus. Du point de vue des instruments de politique étrangère, nous avons, selon McRae, assisté à un développement remarquable du droit international et à une multiplication des sommets mondiaux visant à capter l'attention et à forger des consensus. Il nous faudra, observe-t-il, nous habituer à cette nouvelle forme d'élaboration de la politique étrangère qui vise moins à influencer sur la façon dont les pays se comportent à l'extérieur de leurs frontières qu'à agir sur leurs politiques internes. En cette époque de contraintes financières, il est difficile de défendre, à l'intérieur du pays, les motifs altruistes qui sous-tendent une telle politique étrangère. Dans son texte, McRae explique cette nouvelle dynamique qui s'est développée dans le système international et propose quelques voies dans lesquelles le Canada pourrait s'engager de façon à tirer le meilleur parti possible de ces changements. Il propose que le Canada accorde la priorité aux principaux pays en voie de développement, ceux qui exercent une influence ou sont des chefs de file dans leur région, ou ceux dont l'environnement a des effets sur le patrimoine commun. Il soutient que le Canada devrait également employer ses ressources à renforcer l'essor de la démocratie et à favoriser des marchés plus libres, à

appuyer la réforme des Nations unies, à créer, conjointement avec les pays qui partagent le même point de vue, des instruments internationaux efficaces qui n'aient pas nécessairement une base très large mais qui fonctionnent bien, et à joindre ses efforts à d'autres pour hâter l'avènement d'une société civile mondiale.

Peter Padbury : « Le rôle du Canada dans le débat international sur la sécurité environnementale »

Peter Padbury est chercheur au Conseil canadien pour la coopération internationale, à Ottawa.

Peter Padbury fait remarquer que le processus de mondialisation des dernières années a eu pour effet de complexifier le processus de formulation de la politique nationale. Dans son texte, il défend l'idée que les gouvernements nationaux subissent de plus en plus la poussée des forces internationales. La sécurité environnementale est un exemple de domaine où les politiques internes peuvent avoir des répercussions sur le plan international. Le problème principal, fait valoir l'auteur, est que le système actuel de direction des affaires mondiales est incapable de résoudre les nouveaux problèmes globaux qui surgissent, tels que celui de la sécurité environnementale, puisqu'il est organisé de façon à promouvoir les intérêts nationaux à court terme. Padbury souhaite que les organisations non gouvernementales jouent un rôle plus actif. Ces organisations, soutient-il, pourraient apporter des éclairages précieux dans le débat et rendre l'ONU plus transparente et plus responsable; elles pourraient également participer au financement de programmes, si elles ont le sentiment qu'on les écoute.

COMMENTAIRE:

David Runnalls

David Runnalls est un consultant qui a réalisé de nombreux travaux sur des questions liées à l'environnement et à la sécurité. Il est présentement membre associé de l'Institut international du développement durable, à Winnipeg, et conseiller principal auprès du Centre de recherches pour le développement international.

Runnalls fait ressortir la nécessité de maintenir un dialogue permanent dans le but de trouver une façon de disposer des ressources nécessaires pour la recherche. Il existe, selon lui, divers moyens grâce auxquels on peut promouvoir des normes

environnementales plus élevées. Premièrement, il note que les cycles environnementaux et les cycles économiques sont décalés de deux à trois ans et qu'il faut que survienne une catastrophe quelconque pour que les préoccupations environnementales refassent surface. Deuxièmement, il croit qu'il y a consensus sur le fait que certains problèmes mettent nettement la sécurité en jeu (l'érosion de la couche d'ozone, les changements climatiques) et soutient que ce dont nous avons besoin, c'est d'un processus transparent. Troisièmement, il fait valoir que la crise financière des Nations unies a fourni l'occasion de réformer le système. Il propose qu'au lieu d'accroître la participation civile, nous accroissions l'influence des ministères des Affaires étrangères et des Finances. Quatrièmement, Runnalls ne croit pas qu'il y ait un problème d'argent. Il mentionne, à titre d'exemple, le fait que des subventions sont accordées aux industries pétrolières et gazières. Il croit que la libéralisation du commerce sans mesures de protection de l'environnement nous conduit inévitablement à un désastre. À son avis, le Canada n'a pas fait grand-chose pour s'attaquer à ce problème, et l'Organisation mondiale du commerce n'a guère fait davantage. Il soutient de surcroît que le système multilatéral et le système commercial fonctionnent séparément. À titre d'exemple, l'Uruguay Round tirait à sa fin au moment même où beaucoup d'attention était accordée à la mise en place d'un nouveau Secrétariat à la biodiversité et pourtant, note Runnalls, aucun lien n'a été établi entre les deux. Il affirme que le Canada pourrait jouer un rôle important dans l'établissement d'un tel lien. Finalement, il croit que, pour obtenir l'appui du public, il nous faut trouver un moyen de définir ces concepts de façon à ce qu'ils acquièrent une signification réelle pour les Canadiens.

COMMENTAIRES DES PARTICIPANTS:

Puisque, de l'avis des participants, les intérêts canadiens s'étendent à l'échelle du monde, il se dégage un consensus selon lequel les planificateurs de politiques doivent, premièrement, adopter une perspective à long terme, plus globale et, deuxièmement, planifier d'une manière qui soit davantage proactive. La diplomatie préventive, font-ils valoir, est la clé dont nous avons besoin pour épargner des souffrances humaines et de l'argent. Ils font ressortir que l'enjeu de la sécurité environnementale nous offre l'occasion de prendre des mesures préventives. De plus, certains attirent l'attention sur le fait que le processus d'élaboration des politiques en lui-même amène des pays à se rassembler, des pays qui se situent souvent des deux côtés des frontières nord-sud.

Pour certains participants, le présent défi porte sur la façon d'obtenir l'appui du public. Ils soutiennent qu'une partie du problème tient au fait que les médias n'ont pas

fait leur travail. Par exemple, alors qu'il y a maintenant consensus sur le réchauffement global de la planète, le problème des maladies qui surgissent n'a pas été soulevé dans le contexte de ce réchauffement. Ils insistent sur la nécessité de capter l'attention du public, de communiquer clairement et efficacement, et de faire de l'environnement un enjeu important. Il est certainement valable de déterminer le rôle de la dégradation de l'environnement dans les conflits, mais certains participants croient qu'il est essentiel de modifier la façon dont les gens pensent. La question, reconnaissent-ils, est celle-ci : comment pouvons-nous générer un appui pour la sécurité environnementale alors que le concept n'est pas aussi clair et net que nous aimerions qu'il le soit? À leur avis, nous avons besoin de porte-parole crédibles pour promouvoir la cause.

Un autre problème ressenti par les participants est la séparation maintenue entre divers domaines dans les forums multilatéraux. À titre d'exemple, certains ont attiré l'attention sur le fait que les pourparlers sur le développement durable aux Nations unies se sont déroulés séparément de ceux du Conseil de sécurité sur Haïti, tout comme des autres pourparlers sur la sécurité ailleurs dans le monde. De même, les organisations non gouvernementales n'ont pas eu accès à des organismes tels que l'Organisation mondiale du commerce. Ils notent que, souvent, les gens qui œuvrent au développement et ceux qui œuvrent à la protection de l'environnement le font séparément. Cet isolement, soutiennent-ils, a conduit à une incohérence des lignes d'action, ce qui amène à croire que les planificateurs de politiques doivent réorienter leur attention vers un développement axé sur l'humain, comme cela a été fait au Sommet social.

Les participants reconnaissent qu'un certain nombre de choses peuvent être faites sans difficulté, des choses telles que l'adoption de solutions simples dans les pays en voie de développement et des projets de recherche dans des domaines critiques qu'on juge actuellement trop coûteux en regard de leur efficacité. Ils font ressortir l'importance de reconnaître que la sécurité environnementale n'est pas seulement une affaire interne, mais également une affaire externe du pays; ils mentionnent, à titre d'exemple, que les effets déstabilisants des programmes d'ajustement structurel peuvent défaire les structures sociales et générer une insécurité environnementale. Les participants proposent d'adopter une stratégie à deux volets : l'un qui porte sur les menaces environnementales directes pour le Canada, telles que l'érosion de la couche d'ozone, et l'autre qui porte sur les menaces indirectes, telles que les tensions qui existent au Moyen-Orient au sujet du partage de l'eau.

En ce qui concerne les liens entre les concepts de sécurité environnementale et de développement durable, les opinions divergent. Certains participants font valoir qu'à partir du moment où on accepte d'établir un lien entre la dégradation de

l'environnement et les conflits, le concept de développement durable peut être interprété comme l'absence de conflit à long terme. D'autres nourrissent de fortes réserves sur cette façon de lier les concepts. Ainsi, font-ils valoir, dans l'Arctique, l'accès à des ressources alimentaires est une question de sécurité (parce que c'est la survie qui est en cause), et des mesures concrètes, telles qu'un soutien à la recherche et des négociations avec les pays qui polluent la chaîne alimentaire, doivent être prises pour résoudre le problème. Selon ces participants, le développement durable en soi n'offre pas les outils adéquats pour s'attaquer à cette situation, et ils réclament des mesures complémentaires.

MOT DE LA FIN:**Marie Bernard-Meunier**

Marie Bernard-Meunier est présentement sous-ministre adjointe responsable du Secteur des enjeux globaux et de la culture.

Dans ses observations finales, Marie Bernard-Meunier a fait ressortir quatre points principaux : premièrement, s'il est vrai que le Canada ne peut être partout à la fois, il peut tout de même faire plus. Deuxièmement, au cours du séminaire, le concept de sécurité a souvent été utilisé pour traiter de questions touchant la sécurité des personnes. Elle a été surprise, avoue-t-elle, de constater qu'en dépit des objectifs définis pour le séminaire, les liens entre le stress environnemental et les conflits n'aient pas été le sujet principal des débats. Ceci pourrait s'expliquer, croit-elle, par le fait qu'on porte davantage d'attention à ce qui est près de soi, à ce qu'on peut percevoir comme une menace réelle. Troisièmement, elle a le sentiment qu'un consensus s'est dégagé au sujet des lacunes du système international. Même s'il y a place pour une amélioration en ce qui concerne les aspects financiers et la gestion des affaires publiques, fait-elle observer, on ne devrait pas se montrer trop optimiste sur les possibilités de changement. Elle rappelle, à titre d'exemple, la réaction violente à la taxe proposée récemment par le ministre Tobin. Finalement, elle se dit d'accord sur le fait que les liens entre les politiques commerciales et les politiques environnementales doivent être mieux compris. Bien qu'il faille, reconnaît-elle, favoriser la libéralisation des échanges commerciaux, celle-ci ne doit pas être perçue comme la solution à tous les problèmes. Elle conclut en disant que nous devons être prudents dans notre réaction face à la libéralisation et à la mondialisation, puisque ces mouvements ont des répercussions sur des choses que les Canadiens et d'autres jugent de première importance.

TEXTS PRESENTED

TEXTES PRÉSENTÉS

**WORKSHOP 1:
IS THERE A CASE FOR STUDYING ENVIRONMENTAL SECURITY?****Global Overview of Threatening Ecological Factors and Situations**

By Michael Keating
Environment Writer and Consultant
Project Director and Editor, *Canada and the State of the Planet*

Our complex industrial society has been built on an even more complex and sometimes poorly understood series of interlocking natural relationships. We see them in terms of environmental resources and services, such as soil, water, fisheries, forests and a stable atmosphere and climate. Canada's future security will depend as much on our ability to control our environmental impacts, and maintain those ecological services as it now does on our ability to limit warfare. In the post cold war era, the environment has emerged as one of the critical issues in global affairs. In 1988, Mikhail Gorbachev told the UN General Assembly in 1988 that, "The relationship between man and the environment has become menacing. Problems of ecological security affect all, the rich and the poor. The threat from the sky is no longer missiles, but global warming."

In 1990, Senator Sam Nunn, Chairman of the Senate Arms Services Committee, said that, "There is a new and different threat to our national security emerging—the destruction of our environments. I believe that one of our key national security objectives must be to reverse the accelerating pace of environmental destruction around the globe." Within the past few months, U.S. Secretary of State Warren Christopher has made environmental issues a priority in U.S. foreign policy, saying that the population explosion, climate change and stress on the planet's resources create conflicts that affect U.S. interests. Issues like water table levels in Asia and the Middle East, desertification in the Sahel and population growth in Rwanda join traditional security interests such as arms buildups. To understand global environmental change, we have to understand the two primary driving forces of change. The first is population growth, which brings an inexorable demand for, at a minimum, more food, water, sanitation, shelter, transportation, medical care and employment. These services inevitably consume natural resources, and result in pollution. We are in the midst of an unprecedented population explosion. It took humanity some 3-4 million years of evolution from hominids like Lucy to reach a population of 2.5 billion in 1950. Any of us born before 1950 have seen the world population more than double. We are now at 5.8 billion. Our population grows

by 3 people per second, 10,000 an hour, 240,000 a day, 1.8 million a week, 90 million a year and 1 billion per decade. This is the net increase despite the millions of premature deaths per year from war, famine and illnesses such as AIDs. Despite a slowdown in the rate of increase, the population will continue to rise for decades. Half the world population is under 25, and thus is at or below the prime years for procreation. The UN projects that world population will reach 6.1 billion by 2000 and 8.3 billion by 2025. It will be approaching 10 billion by 2050, if current trends continue. More than 90 per cent of this growth is expected in developing regions, such as Asia, Africa and Latin America, which had 85 per cent of the global population increase since 1950.

The second driving force of change is increased consumption of natural resources, which has been resulting in higher levels of pollution. Sharp as the population curve is, it is not as sharp as the consumption curve. Since 1900, the world's population has more than tripled. In the same period, the economy grew 20 times, the consumption of fossil fuels grew by a factor of 30, and industrial production by a factor of 50. The bulk of this increase, about three-quarters in the case of fossil fuels, and a little over 80 per cent in the case of industrial production, has taken place since 1950. It is crucial to understand that only about 30 industrialized countries, with 20 per cent of population consume about 80 per cent of resources such as cars, metals, chemicals and paper, and produce about 80 per cent of key pollutants such as CO₂ and ozone depleting substances. To put it in simple terms, a typical North American consumes 50 times the resources of someone from India.

That means there is a vast, potential demand to consume in the less-industrialized nations. If they develop on the western model, the ecological impact will clearly be unsustainable. What are the trends? The Brundtland Report predicted that if the population doubles in the next 50 years, a 5 to 10 fold increase in global economic activity will be required for people to meet their basic needs and minimal aspirations. This translates to an annual growth rate of only 3.2 to 4.7 per cent, which is hardly enough to keep up with projected rates of population growth. What is the carrying capacity of our planet—its ability to provide resources and absorb our wastes? It all depends on how much each person consumes and emits. Various experts have estimated the long term carrying capacity of our planet at between 2.5 to 6 billion, depending on our diet and lifestyle.

Environment and security

What do an increasing population with growing material demands mean for our concept of security? Nations have long gone to war over access to natural resources. Access to oil was one of the major causes of war in the Pacific Theatre during the Second World War. It was a war that ended with the first use of atomic weapons. The 1991 Gulf War was also largely over who controlled the regional oil supply. This war nearly led to use of chemical and biological weapons.

Ocean fisheries are now essentially producing at their maximum capacity of about 100 million tonnes a year, but about 70 per cent of world fish stocks are not in a good condition. As population grows, we will see less fish per capita, even with aquaculture. Over the past couple of decades, a number of nations have come to blows over rights to fish on the high seas. Canada fired shots over fish, and captured the Spanish trawler *Estai* less than a year ago, severely straining relations with Spain. There is the risk of further conflict over who owns the fish in the open seas.

Every society lives or dies according to its water supply, and that resource is under increasing pressure. Global water use doubled between 1940 and 1980, and could double again by 2000. As population, and demand for irrigation and industrial water grows, per capita water supplies are shrinking, especially in dry, high population growth areas such as North Africa, the Middle East, and parts of India and China. Swedish hydrologist, Malin Falkenmark, one of the world's water experts, estimates that by 2000, 11 African countries, with a total population of 250 million, will fall below what she calls the water barrier of 500 cubic metres of water per capita per year. She projects that by the year 2025, this will rise to 1.1 billion, or two-thirds of Africa. It has been suggested, by authorities as high as the secretary-general of the United Nations, that wars in the future are as likely to be fought over water as over oil. A dispute over the Indus River was an element in the 1965 war between India and Pakistan and the arms race which has cost them so much. Cabinet ministers from both Egypt and Israel have been quoted in recent years as saying that if people in the region are not able to find mutual solutions to their water needs, war is unavoidable. Water rights were one of the most contentious issues during the recent Middle East peace negotiations between Israel and the PLO.

Longer term ecological threats

Depletion of the protective stratospheric ozone layer was the first global change issue to capture the attention of world governments. It clearly threatens human health and food production, starting with oceanic plankton, the base of the global food chain.

In September 1987, nations began to sign the world's first global atmospheric protection agreement. They promised to control the pollutants, such as CFCs, that are destroying the Earth's ozone layer. The emissions are being reduced, but there is a lag time between these reductions and a healing of the ozone layer, during which we face unpredictable increases in UV-B radiation. Last fall, the so-called "hole" in the Antarctic ozone layer was as big as Europe. For centuries our civilizations evolved in a relatively stable climate. By changing the composition of atmosphere, which controls climate, we are playing with the levers that govern conditions for life on earth. One eminent panel after another tells us that by injecting billions of tonnes of greenhouse gases a year into the atmosphere we are increasing its ability to trap heat. They say that the risks of a warmer global climate include rising sea levels, more violent and unpredictable storms, and changes in the frequency and amount of rain and snowfall that provide us with drinking water, and make our crops grow. The very existence of low-lying island nations is threatened by rising ocean levels. For delta areas around the world, there is the risk of storm surges and mass destruction such as we already seen in Bangladesh, even under "normal" conditions.

One issue of global change that does not get enough attention is that of land degradation. Most of the world's best arable land is already under cultivation. As the world population grows, there will be less arable land per capita. According to the United Nations Environment Programme, land degradation, sometimes called desertification, affects one-quarter of the world's agricultural land. The combination of population growth and land degradation accelerate the risk of food shortages. In addition, our cities are traditionally built on the best foodlands, and the forces of urbanization and industrialization are increasing the paving of farms. For a while, nations with money can import food, but at some point there will not be enough world food production to support the increased demand.

What does Canada have to win or lose from global change?

The previous examples are drawn from a long list of interconnected environmental and natural resource problems facing our world. Some pose a direct threat to our health, food supplies, economic development and enjoyment of life. Many pose threats that are indirect but also serious. Even if we in Canada escape or are able to buffer ourselves from some environmental problems, other countries will not be as lucky. If our current or potential trading partners slide into ecological decline, this will trigger economic decline, and this will provoke political instability. This will hurt us economically, and will drag us into military and police actions around the world.

Closing thoughts

Where does this leave us? We clearly have to reduce a variety of environmental pressures in all parts of the world at the same time that our population and material demands are increasing. In the days of the cold war, we developed the concept of the first, second and third worlds. Then we evolved into the concept of developed and underdeveloped worlds. If we look at the impact of much our modern industrial development on the environment, it might be useful to see the world's peoples in three different categories: overdeveloped, underdeveloped and well developed. There is no simple formula for deciding what a sustainable society would look like, but a road map to sustainable development has been taking shape. The 1992 Earth Summit in Rio de Janeiro, the largest-ever meeting of world leaders, produced two international agreements, two statements of principles and a major action agenda on world wide sustainable development. They included: Agenda 21, a blueprint on how make development socially, economically and environmentally sustainable; the Rio Declaration on Environment and Development; a statement of forest management principles; and conventions on greenhouse gases and conserving biological diversity. If the guideposts contained in those documents were treated seriously, we could shift population and development patterns toward living within our ecological means. If we fail to do this, and overload our planetary ecosystem, the resulting ecological breakdown will disrupt global economic and political stability.

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Empirical Findings from Recent Research

Valerie Percival
The Project on Population, Environment and Security
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Introduction

The understandings gained by investigation into the causes and consequences of the Cold War and other inter-state conflicts seem ill-equipped to explain and manage the violence that dominates international relations today. Conflicts are increasingly being waged by non-state actors, and states face more threats domestically from their constituents than internationally from other states. Different explanatory tools have to be developed to understand the violence in the world today.

In an effort to explain contemporary forms of violence, analysts have intensified their research into the environmental basis of civil strife. Investigations into the relationship between environmental scarcity – the scarcity of renewable resources – and violence have attracted attention among academics, non-governmental organizations, and policy making communities. However, much of this research has been overly simplistic. While not denying the importance of environmental factors in some instances of conflict, it is equally important to avoid the pitfalls of apocalyptic determinism and fully understand the factors that influence the relationship between the scarcity of renewable resources and social instability.

Environmental stress is not the sole cause or even the most important cause of certain conflicts in the world today. Environmental scarcity interacts with political, economic, and social factors; within this complex, interactive system one factor cannot be isolated as the cause of conflict. Therefore, to understand the contribution of environmental scarcity to violence, researchers must disentangle the various factors at play in any one particular conflict, and trace out the role of environmental scarcity amid these other factors.

To facilitate an understanding of the link between environmental stress and violence, the Project on Environment, Population and Security, under the direction of Thomas Homer-Dixon brought together a team of researchers at the University of

Toronto¹. I begin this paper with an outline of the conceptual framework developed by Homer-Dixon and utilized by the project to guide investigation into the relationship between environment and conflict. To illustrate the relationship between environmental factors and conflict, I apply this framework to the case of South Africa. I conclude with a summary of the project's key findings on environment-conflict links.

Conceptual Framework

The context specific to each case determines the precise relationship between the scarcity of renewable resources — such as cropland, water, fuelwood, and fish — and outbreaks of violent conflict. The quantity and vulnerability of environmental resources influence the activities of a society's population and determine the environmental impacts of these activities. Contextual factors also include the balance of political power, patterns of interaction and the structure of economic relations among social groups.

There are three types of environmental scarcity: (1) supply-induced scarcity is caused by the degradation and depletion of an environmental resource, for example, the erosion of cropland; (2) demand-induced scarcity results from population growth within a region or increased per capita consumption of a resource, either of which increase the demand for the resource; (3) structural scarcity arises from an unequal social distribution of a resource that concentrates it in the hands of relatively few people while the remaining population suffers from serious shortages.

These three types of scarcity often occur simultaneously and interact. Two patterns of interaction are common: resource capture and ecological marginalization. Resource capture occurs when increased consumption of a resource combines with its degradation: powerful groups within society — anticipating future shortages — shift resource distribution in their favor, subjecting the remaining population to scarcity. Ecological marginalization occurs when increased consumption of the resource combines with structural inequalities in distribution: denied access to enough of the resource, weaker groups migrate to ecologically

¹ Under the direction of Thomas Homer-Dixon, the Project on Environment, Population and Security Links began in July 1994 with a grant from the Pew Charitable Trusts. The goal of the project is to gather, evaluate, integrate and disseminate information on causal linkages among population growth, renewable resource scarcities, migration and violent conflict. The case studies of the project include Chiapas, Mexico; Gaza; Pakistan; Rwanda; and South Africa. The thematic reports include a study on Urban Growth and Violence and a paper on Social Adaptation. The project also is producing a Briefing Book summarizing the findings of the project for policy makers. The research team includes the following members: Thomas Homer-Dixon (Principal Investigator, Social Adaptation); Peter Gizewski (Urban Growth, Pakistan); Philip Howard (Chiapas); Kim Kelly (Gaza); and Val Percival (Rwanda, South Africa, Briefing Book).

fragile regions that subsequently become degraded.²

The three types of scarcity and their interactions produce several common social effects, including lower agricultural production, economic decline, migrations from zones of environmental scarcity, and weakened institutions.³ The first two of these social effects can cause objective socio-economic deprivation and, in turn, raise the level of grievance in the affected population. High levels of grievance do not necessarily lead to widespread civil violence. At least two other factors must be present: groups with strong collective identities that can coherently challenge state authority, and clearly advantageous opportunities for violent collective action against authority. In other words, for grievances to produce civil strife such as riots, rebellion and insurgency, the aggrieved must see themselves as members of groups that can act together, and they must believe that the best opportunities to successfully address their grievances involve violence.

Civil violence is a reflection of troubled relations between state and society. Peaceful state-society relations rest on the ability of the state to respond to the needs of society — to provide, in other words, key components of the survival strategies of the society's members — and on the ability of the state to maintain its dominance over groups and institutions in society.⁴ Civil society — groups separate from but engaged in dialogue and interaction with the state — present the demands of their constituents.⁵ Grievances against the state will remain low if groups within society believe the state is responsive to these demands. Opportunities for violence against the state will rise when the state's ability to organize, regulate, and enforce behaviour is weakened in relation to potential challenger groups. Changes in state character and declining state resources increase the chances of success of violent collective action by challenger groups, especially when these groups mobilize resources sufficient to shift the social balance of power in their favor.⁶

² Thomas Homer-Dixon, "Environmental Scarcities and Violent Conflict: Evidence from Cases," *International Security*, Vol. 19, No. 1 (Summer 1994), p. 10-11.

³ Thomas Homer-Dixon, "On the Threshold: Environmental Changes as Causes of Acute Conflict," *International Security*, Vol. 16, No. 2 (Fall 1991), p. 91.

⁴ Joel Migdal, "The State in Society," in *State Power and Social Forces*, Joel Migdal, Atul Kohli, Vivienne Shue eds. (Cambridge: Cambridge University Press, 1994) p. 27.

⁵ Both Robert Putnam and Naomi Chazan emphasize the importance of interactions between civil society and the state for effective state policy. See Robert Putnam, *Making Democracy Work: Civil Traditions in Modern Italy* (Princeton: Princeton University Press, 1993); Naomi Chazan, "Engaging the State: Associational Life in Sub-Saharan Africa," in *State Power and Social Forces*, Joel Migdal, Atul Kohli, and Vivienne Shue eds. (Cambridge: Cambridge University Press, 1994) pp. 255-292.

⁶ Ted Robert Gurr, *Minorities at Risk: A Global View of Ethnopolitical Conflicts*, (Washington: United States Institute of Peace, 1993) p. 130.

Environmental scarcity threatens the delicate give and take relationship between state and society. Falling agricultural production, migrations to urban areas, and economic decline in regions severely affected by scarcity often produce hardship, and this hardship increases demands on the state. At the same time, scarcity can interfere with state revenue streams by reducing economic productivity and therefore taxes; it can also increase the power and activity of rent-seekers who become evermore able to deny tax revenues on their increased wealth and to influence state policy in their favor. Environmental scarcity therefore increases society's demands on the state while decreasing its ability to meet those demands.

Severe environmental scarcity causes groups to focus on narrow survival strategies, which reduces the interactions of civil society with the state. Society segments into groups, social interactions between groups decrease, and each group turns inwards to focus on its own concerns.⁷ Civil society retreats, and as a result, society is less able to effectively articulate its demands on the state. This segmentation also reduces the density of "social capital" — the trust, norms, and networks generated by vigorous, cross-cutting exchange among groups.⁸ Both of these changes provide greater opportunity for powerful groups to grab control of the state and use it for their own gain. The legitimacy of the state declines, as it is no longer representative of or responsive to society.

Opportunities for violent collective action can *decrease*, even under conditions of environmental scarcity, when the power of potential challenger groups is diffused by vigorous horizontal interaction within society and vertical interaction between civil society and the state. However, if poor socio-economic conditions persist, grievances will remain. These grievances will probably be expressed through an increase in deviant activity such as crime. Unless they are addressed, the legitimacy of the government will decrease, society will once again become segmented, and opportunities for violent collective action will correspondingly increase.

The Case of South Africa

Although South Africa experienced a relatively stable transition to democratic rule, violence within the black South African community has escalated steadily since the 1980s. This violence increased at precisely the same time that many anticipated the transition to a more peaceful society — upon the release of Nelson Mandela, the end of the ban on political activity, and the official end to apartheid. Conflict became more intense and spread throughout the country. Analysts have overlooked the role of environmental problems as a contributor to social instability in South Africa. Environmental scarcity is not the sole cause of the country's recent turmoil. But policy makers and social analysts who ignore

⁷ Chazan, "Engaging the State," p. 269. Chazan argues that under conditions of economic strain, both state and society become more insular.

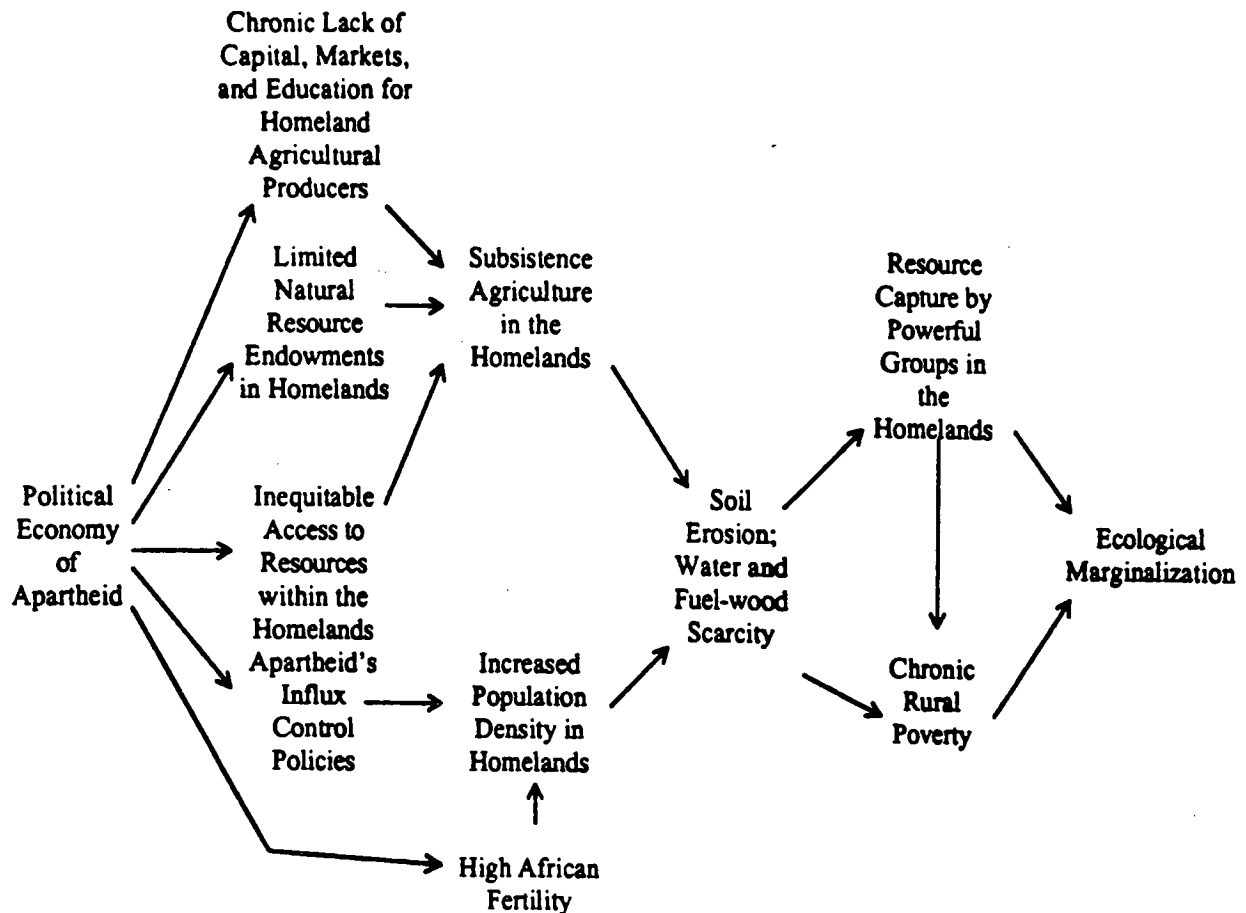
⁸ Putnam, *Making Democracy Work*, p. 167.

environmental problems risk missing a factor that powerfully contributes to the violence.

Figure one presents the impact of environmental scarcities in South Africa's rural areas. Apartheid created homelands in areas with few natural resources. Resources were also inequitably distributed within the homelands themselves, as elites controlled access to productive agriculture and grazing land. Populations sustained themselves through subsistence agriculture with added remittances from family members working in industry and mines outside the homelands. Homeland agricultural producers suffered from a chronic lack of investment capital, were denied access to markets, and lacked knowledge of appropriate land-use management techniques — a product of discriminatory education and agricultural extension services. Opportunities to move into urban areas were restricted by influx control; these restrictions combined with high fertility rates to increase population densities. Soils were fragile and susceptible to erosion. Inadequate supplies of electricity and fossil fuels forced people to use fuelwood, which became more scarce. Rural poverty escalated as agricultural and grazing productivity declined from land degradation, and daily water and energy needs became evermore difficult to satisfy.

This rising scarcity of vital environmental resources boosted incentives for powerful groups within the homelands to secure access to remaining stocks — a process known as resource capture. Land rights were traded for political favours in the homelands' highly corrupt system of political rule. The combination of overpopulation, depleted resources, and unequal resource access resulted in ecological marginalization: to survive, people migrated first to marginal lands within the homelands — hillsides, river valleys, and easily eroded sweet veld; then, as the Apartheid system began to show signs of limited reform in the early 1980s, people started moving to ecologically and infrastructurally marginal urban areas.

Figure 1: Environmental Scarcity within South African Homelands



As presented in figure two, chronic poverty, ecological marginalization, and high fertility rates in the former homelands caused rural-urban migration. These migrations along with high urban fertility rates boosted urban population densities. High urban densities, in turn, combined with the impoverishment produced by Apartheid to force people to rely on the urban environment to provide for their daily needs. Too many people relying on a limited resource base produced urban environmental scarcity.

The huge movement of people to and within urban areas increased demands on local institutions. Rising environmental scarcity, meanwhile, caused evermore social segmentation. These two processes together produced a sharp weakening of the institutions needed to meet the needs of the local population. Warlords were able to seize control of key environmental resources, which further weakened local institutions. A cycle began: institutions could not provide for the population which forced people to rely on, and subsequently degrade, the local environment; weak institutions provided warlords with increased opportunities for predatory behaviour.

Figure 2: Environmental Scarcity and Urbanization in South Africa

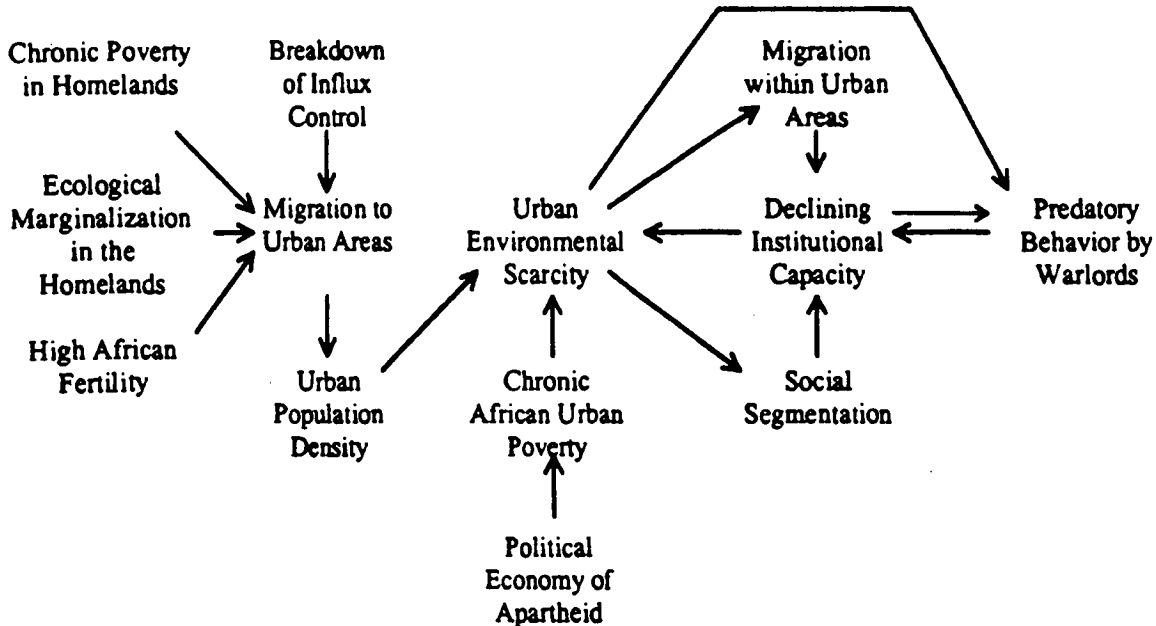
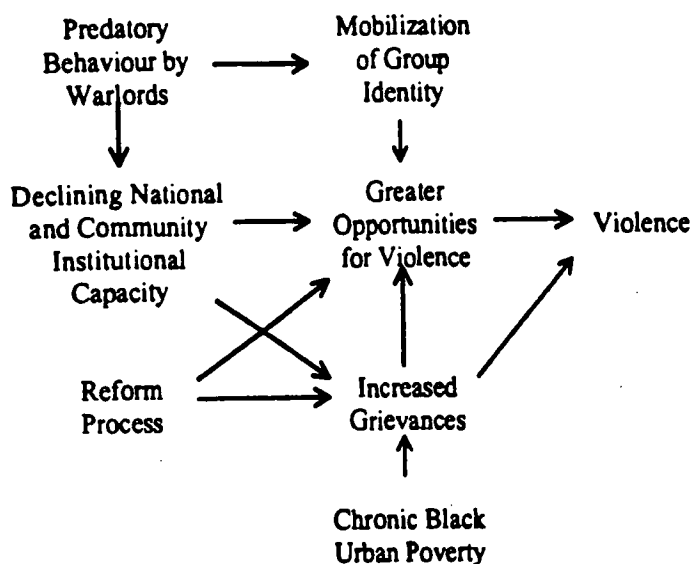


Figure 3 diagrams the surge of violence after 1990 in South Africa. The reform process raised expectations for better socio-economic conditions, while declining state capacity limited the ability of institutions to meet these expectations. Unmet expectations, further frustrated by the poverty endemic to the African community, increased grievances within African society and promoted group cleavages and competition for resources. Opportunities for collective action changed with the transformation of South African politics. Predatory warlords and opportunistic members of the African National Congress (ANC) and Inkatha took advantage of a weakened state, debilitated local institutions, and an aggrieved population to mobilize group identities and instigate group rivalries. These factors dramatically increased the incidence of violence.

After Nelson Mandela's release in February, 1990, violence became pervasive. From that date until December 1993, political violence killed an estimated 12,000 people — an annual rate more than four times that prior to 1990. In 1992 alone, criminal and political violence together produced more than 20,000 deaths. In July 1990 the so-called Reef Township War began in the regions around Johannesburg. Clashes broke out between migrant workers residing in hostels and residents of townships and informal settlements. In 1992, the annual incidence of violence escalated 133 percent in the Central Rand, the area immediately surrounding Johannesburg. The area south of Johannesburg saw a jump of 200 percent, whereas the region east of Johannesburg witnessed an increase of 84 percent. It is impossible to prove that the upsurge of violence in the early 1990s would not have occurred in the

absence of severe environmental scarcity. The data available are simply not adequate for such proof. Yet, as shown above, environmental scarcity increased grievances and changed opportunities for violent collective action, thus contributing to social instability.

Figure 3: Outbreak of Violence in South Africa



To understand the complex links between environmental scarcity and violent conflict, analysts must understand the relationship between state and society. During the 1980s and early 1990s, the demands of South African society on the state increased as thousands of people moved to urban areas, while the ability of both national and local institutions to meet these demands decreased. With the decline of local governments, the apartheid regime lost its already tenuous links to society. Society segmented, and powerful groups married their local conflicts over resource access to the struggle for political control between the ANC and Inkatha.

The election of Mandela has changed the relationship between state and society. State legitimacy has jumped upwards, and political violence has declined dramatically. The Reconstruction and Development Program (RDP), instituted to manage the transition from apartheid, recognizes the needs of society, and interactions between state and society are now more constructive and vigorous. The government has established forums around the country to discuss local implementation of the RDP — forums that boost civic engagement and generate social capital.

However, for most blacks, living conditions remain dismal. Blacks are not happier because their living conditions have changed; rather they are happier because they think these conditions are going to change. If change is not quickly forthcoming, therefore, the regime

will lose legitimacy, and linkages between state and society will once again weaken. Unfortunately, already severe environmental scarcity makes the process of positive change much harder. Social demands on local institutions continue to expand, crime rates have increased dramatically, and political violence between Inkatha and the ANC has recently escalated.

Conclusion

The main causes of civil conflict, such as the violence in South Africa, appear to be ethnic tension, poverty, institutional breakdown and migrations. However, the scarcity of renewable resources, such as water, fuelwood, cropland and fish, can contribute to increased tensions between ethnic groups, impoverishment, weakened institutions, and migrations. Although renewable resource scarcity is not the sole cause of these conflicts, it is a factor that until recently has been neglected in analysis into the causes of acute conflict.

Environmental scarcity rarely results in interstate wars, most conflict arising from environmental stress will be intra-state in nature. However, this civil violence can have international repercussions. The international community will be affected by civil strife if it occurs within a strategically important region, if the participants in the conflict possess weapons of mass destruction, and if the violence results in massive refugee flows. Civil strife has recently resulted in complex humanitarian disasters, such as Rwanda and Somalia. Humanitarian disasters have significant transnational consequences as the international community is called upon to deliver humanitarian assistance to alleviate human suffering.

The project's research analyzes the relationship between environmental factors and violence; we do not refer to the link between environmental stress and Canadian national security. The end goal of our research is to heighten the understanding of what contributes to the outbursts of violence that affect millions of people in the world today. Although we offer proactive policy suggestions, these recommendations are focused on the link between scarcity and violence within each particular case. Our recommendations do not address Canadian security interests, however reducing the incidents of violent conflict can only enhance human security worldwide.

**ATELIER 2:
LA SÉCURITÉ ENVIRONNEMENTALE: DÉFINITION DES TERMES**

**Notes sur la politique étrangère et la sécurité environnementale:
quelques concepts**

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La notion de sécurité environnementale est récente, et son utilisation comme instrument de politique étrangère encore davantage. Le concept lui-même de sécurité environnementale fait l'objet de nombreux débats au sein de la communauté universitaire et dans les milieux gouvernementaux. Son usage dans la sphère diplomatique comme élément de politique publique a suscité des controverses encore plus vives.

Cette situation s'explique par la nouveauté du sujet, mais aussi parce que l'on confond les niveaux auxquels on doit l'appliquer. Ainsi, le lien entre sécurité et environnement fut d'abord établi à l'échelle de la planète comme condition générale du développement. Plus tard, la notion fut incorporée à la problématique de la Commission Brundtland, c'est-à-dire au mouvement de pensée sur le développement durable qui cumula dans la Conférence de Rio. Ce croisement, comme celui qui tend à présenter la notion de sécurité environnementale comme un substitut à la notion de sécurité militaire dans l'après-guerre froide, explique la confusion qui en a résulté. On ajoutera que les concepts ne sont pas toujours utilisés avec la clarté qui s'imposerait.

L'objet de cette brève présentation est donc de tenter - car rien ne saurait être définitif en cette matière - de mettre un peu d'ordre dans le débat, en particulier dans la perspective de la politique étrangère.

1. Premier constat: la notion de sécurité est partout présente dans le discours social. On parle de sécurité sociale, de sécurité financière, de sécurité en matière de santé, de sécurité culturelle, de sécurité «nationale», etc. Quel est le sens commun à toutes ces expressions? Une chose simple : à défaut de cette sécurité, un élément fondamental, une caractéristique essentielle, sera perdu par un acteur donné. Pour un État, par exemple, la sécurité nationale renvoie à la perte, en partie ou totalement, de son territoire, de sa population, et de la capacité de gérer l'un et l'autre. Pour un individu, le sida entraîne la perspective de mourir. Pour une entreprise, le refus d'un

prêt, une grève prolongée, des tarifs trop élevés, peuvent conduire à sa disparition.

Une première distinction s'impose donc entre l'**insécurité** créée par une condition extérieure à un acteur, et la **sécurité**, l'ensemble des **mesures** que celui-ci prend - ou que l'on prend pour lui - pour abolir cet état de choses.

Le concept de sécurité environnementale est donc ambigu: il renvoie simultanément aux conditions de l'environnement qui créent l'insécurité et aux **politiques** dont l'objet, en principe, est de contrôler ces conditions. Par conséquent, il importerait de discuter à la fois de l'**insécurité environnementale** et de la **sécurité environnementale**.

2. Mais la notion elle-même d'insécurité environnementale est mal comprise. On la confond souvent avec l'insécurité de l'environnement. L'environnement est indifférent à sa sécurité, et il n'a aucune façon de l'appréhender. C'est par leur relation à l'environnement que les acteurs sociaux définissent eux-mêmes une situation d'insécurité. En d'autres termes, seuls des acteurs sociaux sont porteurs d'insécurité environnementale. Celle-ci est par ailleurs fonction de leurs **perceptions** de la réalité environnementale, et ces perceptions dépendent à leur tour de facteurs tels que l'idéologie, la culture, le niveau de savoir de ces acteurs. Il n'y a donc pas d'insécurité environnementale **objective**. La seule mesure possible de l'insécurité environnementale est l'analyse des **comportements**, et c'est là, dans tous les cas de figure, l'objet d'une **politique** de sécurité environnementale. Ce qui, bien entendu, n'exclut pas un diagnostic des conditions de l'environnement qui sont à l'origine de ces perceptions.
3. Mais l'insécurité environnementale est un processus social complexe. On peut le ramener à deux étapes principales: la définition du **risque** et la définition de la **menace**. Le risque apparaît lorsque l'acteur social est confronté à un choix entre le bénéfique ou l'inconvénient d'agir face à une situation qui peut lui être dommageable. Plusieurs des choix environnementaux sont de cette nature, et on en trouve l'expression dans la plupart des politiques environnementales des gouvernements, des entreprises, ou des individus (fumer ou ne pas fumer, par exemple).

La perception d'une menace est d'un autre ordre. L'acteur, à tort ou raison, croit qu'il n'a plus de choix: il a transformé le risque en une certitude, même s'il ne connaît pas encore le déroulement temporel de la menace. Ainsi, l'ex-URSS représentait une menace à la sécurité de l'Occident, même si aucun des pays de l'Alliance atlantique ne savait quand, ni si cette menace serait actualisée. En réalité, une menace comporte à la fois un élément de certitude quant à sa nature, et un élément d'incertitude quant à son

déroulement. Les menaces environnementales sont de ce type : un changement dans l'environnement peut être perçu comme affectant les intérêts essentiels d'un acteur sans que celui-ci sache à quel moment elle se matérialisera. Dès lors, cet acteur se trouve dans une situation d'insécurité environnementale.

Enfin, on ajoutera une dernière catégorie à cette brève nomenclature de l'insécurité environnementale : la **catastrophe**, appréhendée ou non, naturelle ou technologique (un tremblement de terre, la disparition définitive d'espèces considérées comme essentielles, d'une part; ou Chernobyl et Bhopal d'autre part). Ici, l'insécurité se transforme en une «perte». L'importance de cette perte sera définie en fonction du système dominant de valeurs, ou par la distance à la catastrophe.

- 3.1 À cette étape, il paraît donc important de rappeler la distinction entre une menace environnementale et un **problème** environnemental. Ici encore, la mesure sera établie par l'acteur lui-même. Le problème perturbe des intérêts, ou met en cause certaines valeurs, mais il n'est pas défini par l'acteur comme portant atteinte à ses caractéristiques essentielles. De ce point de vue, une modification de l'environnement peut être considérée par un État comme fondamentale, mais par un autre comme un simple problème. Dans une large mesure cette distinction pourrait être appliquée au contentieux des pluies acides entre le Canada et les États-Unis durant une certaine période. Nous verrons plus bas les conséquences de cette distinction pour la gestion de la politique étrangère.
- 3.2 De ce qui vient d'être dit, on comprendra que le concept d'insécurité environnementale ne s'applique pas seulement aux relations internationales et aux États, mais à tous les acteurs sociaux, qu'il s'agisse des individus, des groupes, des collectivités politiques, mais aussi de l'ensemble de la communauté internationale. En d'autres termes, les menaces environnementales peuvent être analysées à chacun de ces niveaux. L'accident de Bhopal, par exemple, n'affectait pas la sécurité de l'Inde, mais seulement les individus qui en furent les victimes. Il en va de même, pour une bonne part, du projet de la Baie James au Québec : c'est un groupe, les Cris, qui se disait menacé. Le défi de l'analyse, cependant, consistera à déterminer, sur le plan empirique, comment une insécurité à un niveau se transpose à un autre niveau dans le temps. Ainsi, une insécurité locale peut être transformée en insécurité nationale par un gouvernement à travers un ensemble de processus sociopolitiques que seule l'observation systématique permettra de dégager. La diminution des stocks de poissons dans l'Atlantique Nord, qui peut en principe être définie comme un phénomène régional, ne

concernant qu'une population restreinte, a été transformée en menace nationale pour le Canada - et même internationale face à l'inaction des États européens.

- 3.3 De la même façon, il importe de préciser ce qu'il faut entendre par une menace interne et une menace internationale à la sécurité environnementale. La menace interne ne concerne que les citoyens et le gouvernement d'un même pays. La notion de menace internationale est plus complexe. Elle est internationale, tout d'abord, si elle est globale, c'est-à-dire si l'ensemble des États la considère dangereuse pour chacun : ce pourrait être le cas de la diminution de la couche d'ozone, quoique certains États en font une appréciation différente. Une menace peut cependant être interne à un État, - par exemple la disparition de certaines forêts tropicales - mais plusieurs États considèrent, indépendamment de l'évaluation qu'en fait l'État concerné, que cette modification dans l'environnement est de nature à les affecter d'une manière grave à plus ou moins long terme. De plus, un problème de nature purement locale peut être «internationalisé» par la communauté internationale si elle estime qu'il doit être géré dans l'intérêt de tous : ce pourrait être le cas de la désertification; ou de la question urbaine, comme en témoigne la prochaine Conférence d'Istanbul. Une bonne partie d'Action 21 relève de cette problématique.

Enfin, une menace est internationale si un État considère que le comportement d'un autre État est susceptible d'affecter ses intérêts d'une manière grave, soit par des initiatives environnementales unilatérales - par exemple le problème de l'eau au Moyen-Orient - soit parce que le refus d'appliquer des normes environnementales reconnues à l'échelle internationale créera des dommages irréversibles à un autre État.

- 3.4 Mais l'analyse est rendue difficile pour deux raisons supplémentaires. Tout d'abord, les menaces environnementales, comme nous l'avons vu plus haut, se définissent en fonction de valeurs ou d'intérêts. Une menace environnementale peut avoir des conséquences économiques, sociales, culturelles, physiques, stratégiques, et même politiques dans la mesure où elles compromettent la stabilité d'un gouvernement. C'est en fonction de ces valeurs et de ces intérêts qu'un changement dans l'environnement peut être considéré comme affectant les caractéristiques essentielles d'un acteur. L'insécurité environnementale pure n'existe donc pas : il n'existe qu'une insécurité sociale, ou économique, etc, engendrée par une modification de l'environnement.

De plus, il est rare qu'une menace environnementale puisse être traitée isolément. Très souvent, elle est de nature à créer d'autres formes d'insécurité. Il y a donc un phénomène d'entraînement, ou **d'aggrégation des insécurités**, qui soulève divers problèmes au niveau de la gestion, et qui ne peut pas être ignoré dans l'analyse.

4. Quelles applications peut-on tirer de ces différents concepts pour le développement de la politique étrangère canadienne?
 - 4.1 En premier lieu, il importerait que le Ministère, en collaboration, certes, avec d'autres ministères, se dote d'instruments d'analyse aussi sophistiqués que ceux dont il dispose dans d'autres domaines, comme les problèmes militaires, les finances internationales, le commerce extérieur, etc. Les interventions du gouvernement fédéral, aussi louables qu'elles soient, sont encore très récentes dans le domaine de l'environnement, et un véritable corps de doctrine reste à développer.
 - 4.2 De ce point de vue, il me semble important qu'une véritable **pensée stratégique** soit élaborée au sein du Ministère à partir, notamment, de perspectives géopolitiques. Par pensée stratégique, on entendra ici, la définition **hiérarchisée** des intérêts spécifiques du Canada face à chaque problème environnemental. Là comme ailleurs, les ressources et le temps contraignent le Canada à faire des choix prioritaires d'attention et d'investissements. Ces choix, normalement, devraient résulter d'un rapport étroit entre ces problèmes et les enjeux propres au Canada. En d'autres termes, la pensée stratégique procède d'une vision de la **sécurité** environnementale du Canada.
 - 4.3 Parallèlement, une distinction pourrait donc être faite entre stratégie environnementale et diplomatie environnementale, c'est-à-dire, dans ce dernier cas, l'ensemble des dossiers internationaux en matière d'environnement qui requièrent la participation du Canada, mais qui n'ont pas pour lui un intérêt prioritaire. Bref, introduire ici la distinction utilisée ailleurs entre «high» et «low politics».
 - 4.4 Cela dit, les questions environnementales dites «globales» doivent-elles être automatiquement considérées comme stratégiques pour le Ministère? Là encore, me semble-t-il, une hiérarchie s'imposerait dans la perspective des intérêts spécifiques du Canada face à chacune de ces questions, en tenant compte, dans chaque cas, de l'état des connaissances scientifiques, de la

position des États auxquels le Canada attache le plus d'importance, etc. Pour prendre un exemple, il est bien évident que la gestion des océans devrait être considérée comme prioritaire par le Canada parmi les questions globales.

- 4.5 Enfin, il me semble qu'il est devenu inévitable que l'on intègre dans la problématique environnementale des questions qui ont été traitées jusqu'ici dans un contexte politique ou juridique différent. La question de la prolifération nucléaire, par exemple, ou des armes chimiques et bactériologiques. Fondamentalement, ces activités technologiques et industrielles, même si elles s'inspirent de considérations autres, entraînent des effets sur l'environnement comparables à des activités qui prennent leur source dans des projets économiques. La réaction provoquée par les récents essais nucléaires français en témoigne. De la même façon, le Canada aurait sans doute intérêt à donner une dimension environnementale importante à toutes ses actions en matière de conflits, de désarmement, ou de la conduite des opérations militaires en temps de guerre. Cette intégration plus systématique ne serait pas finalement différente de celle qui est recherchée de plus en plus entre commerce et environnement, entre développement et environnement.
- 4.6 D'une façon générale, le gouvernement devrait reconnaître qu'il y a une façon propre à la politique étrangère de penser les problèmes environnementaux, différente des approches traditionnelles de la politique interne dans ce domaine. Le discours écologique entretient l'ambiguïté entre ces deux types de politique publique, et le moment me semble venu de donner à la «pensée diplomatique» toute son autonomie.

En conclusion et dans la perspective de ce qui précède, je me permettrai une suggestion : le moment ne serait-il pas venu pour le Canada de se doter d'un livre vert ou blanc sur sa politique environnementale internationale? Si on l'a fait pour la défense, pourquoi ne le ferait-on pas pour l'environnement, qui demeure l'un des grands enjeux internationaux de notre époque?

The Relationship Between Environmental Security and Sustainable Development

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The environmental problems of the poor will affect the rich as well, in the not too distant future, transmitted through political instability and turmoil.

- Gro Harlem Brundtland (1986)

Introduction

The relationship between environmental degradation and political instability implied by Prime Minister Brundtland of Norway, and repeated in the work of the World Commission on Environment and Development (WCED, 1987; the WCED noted that, "... environment has become a fundamental factor in security issues in many regions already...") was indicative of a burgeoning field of interest in so-called "unconventional threats to security." Unconventional threats to security arise from the non-military activities of individuals and groups in society, or from changes in stocks and flows of resources available to groups or nation-states. They are often cumulative, and usually are not perceived as threats to security, at least initially. Examples include: *religious fundamentalism*, which has surfaced in a number of countries and often involves conflict; *human rights abuses*; *impoverishment*; and *the environment*, the deterioration of which has caused widespread alarm. This link between environment and security has been popularized in recent years by a number of authors calling for a "redefinition of security" and noting that environmental problems may be causally related to insecurity and conflict (cf. Ullman, 1983; Myers, 1986; 1995; Westing, 1986; Gleick, 1989; Homer-Dixon, 1991; 1994; Homer-Dixon et al, 1994; Dabelko and Dabelko, 1995). Acceptance of this link between environment and security, however, is by no means universal (see, for example, Deudney, 1991; Dalby, 1992; Conca, 1994). Much of the discussion about the linkage between

environment and security has focused on definitions. While some authors prefer a narrow definition of security focusing on military threats, others prefer a much more comprehensive definition which includes various aspects of "human security." Still a third group oppose a complete redefinition, but are sensitive to including certain unconventional threats - such as environmental degradation - in the consideration of traditional security.

The idea that resource scarcity may promote conflict is not new. As Ullman (1983) notes, the root of most violent conflicts in history was competition for territory and resources, and that such conflicts are likely to intensify as resources become increasingly scarce. What is new is the acceptance that *environmental stress* may be a cause of conflict and insecurity. Because the term "environmental security" has been seen by many as too vague to have any analytical value (Dokken and Graeger, 1995), much of the research focus has been on assessing the relationships between environmental degradation and *conflict*. Therefore, *What is an Environmental Conflict?* A definition arrived at during a meeting in Zurich in 1992 (see Libiszewski, 1992), states it as follows:

"Environmental Conflicts manifest themselves as political, social, economic, ethnic, religious or territorial conflicts, or conflicts over resources or national interests, or any other type of conflict. They are traditional conflicts induced by an environmental degradation.

Environmental conflicts are characterized by the principal importance of degradation in one or more of the following fields:

overuse of renewable resources;

• *overstrain of the environment's sink capacity (pollution); or*
impoverishment of the space of living."

However, there are still those who *prefer* the term "environmental security" precisely because of its comprehensiveness. This group tends towards defining environmental security in the broader context of comprehensive "human security" or what has been termed "sustainable livelihood security."

Despite the extensive, and sometimes arduous, discussions about definitions, the study of the relationship between environment and security (as

conflict) essentially can be divided into three general approaches. The first is exemplified in the writings of Norman Myers (1986; 1993) and Renner (1989) who conclude that environmental problems can be causes of conflict and insecurity, and who base their assertions on anecdotal reports and cursory case studies. While these writings have popularized the links between environment and security, they have done little to advance our understanding of the causal relationships between the two. They also present a distinctively normative approach to the issue, in an attempt to build on the policy appeal of the term environmental security.

A second, more rigorous, approach has focused primarily on the relationship between "environmental scarcity" and conflict (and often avoids the term "security" altogether). Much of the theoretical and conceptual base for this work was contributed by Homer-Dixon (1991; 1993), and has been followed up by more detailed case studies by Homer-Dixon (1994); Homer-Dixon et al. (1994); Spillman and Bachler (1995); and many others. The attempt in these studies has been to draw a link between what is termed environmental scarcity and social change and, eventually, violent conflict. Most of the cases, however, focus on resource scarcity as opposed to environmental degradation per se (for example the role of water in military conflicts). The complex nature of the linkages, and the fact that the relationships between environment and society are historically, socially and politically constructed makes this an almost impossible task. Furthermore, despite an attempt to determine root causes, there has been little success in clarifying the linkages between environment and conflict (let alone designing policy interventions to address such causes). The conclusion by Homer-Dixon et al (1994), which says that "... there are significant causal links between scarcities of renewable resources and violence" notwithstanding, the evidence supporting such a conclusion is weak, indeed. This is not to imply that such causal links do not exist. Rather, it is likely that our methods - or the methods which have been used - for establishing such linkages are deficient (Levy, 1995; Dabelko, 1996). The policy recommendation following the conclusion by Homer-Dixon et al (1994) further weakens the initial claim of a substantive link: "... rich and poor countries alike must cooperate to restrain population growth, to implement a more equitable distribution of wealth within and among their societies, and to provide for sustainable development."

The relative ineffectiveness of the research on environmental scarcity and conflict to produce reasonable results on causal relationships (at least according to some scholars) has resulted in a call for a "third wave" of environment and

security scholarship (Levy, 1995), based on a search for the causes of *regional conflict*. This is particularly true when trying to generate useful policy advice. Gurr (1995; as reported in Levy, 1995) notes that ecological and demographic stress is actually *declining* as a factor in regional conflict. The "third wave" of research, then, focuses not on the environment as a cause of conflict or insecurity, but on the range of possible causes (of which environmental degradation may be one).

In recent months, there have been numerous calls for a further reshaping of the research on environmental security which, in turn, would affect how we would define and apply the concept. Two particular trends are worth noting. First, there has been a strong plea for *regionalism* (sub-national and supra-national) which should be decided on the basis of eco-geography (Dokken and Graebler, 1995). Here eco-geography implies that the region of concern is defined by ecological boundaries (e.g., watershed or eco-region) and not simply political boundaries. Perelet (1995) also argues that environmental security problems must focus on the ecosystem level. Second, there has been a need expressed to focus research at the local level, or at least at the lowest possible level for the insecurity/conflict being studied. This has been termed the "subsidiarity principle" (Mische, 1989). For example, the relationship between environment and poverty must be viewed locally and in the context of broader human security dimensions. These two trends have stimulated questions on the relationship between environmental security and the goal of a sustainable society.

Sustainable Development

Coincidental with the interest in environmental security - and also popularized by the World Commission on Environment and Development - has been the concept of "sustainable development." As defined by the WCED, sustainable development is "... development which meets the needs of the present generation without compromising the ability of future generations to meet their own needs (WCED, 1987)." This concept has now been embraced by individuals, communities, governments and institutions and, similar to the notion of environmental security, research and writing ranges from the most general and anecdotal to specific cases of sustainable communities. One main distinction between research on the relationship between environment and security and on

sustainable development is that the former is primarily *instrumental or analytical*,¹ while the latter is primarily *normative*. That is, with the exception of the general discussion on environmental security, the focus in the research has been on root causes, while much of the emphasis in sustainable development has been on developing guiding principles which would - or should - inform policy. For example, such principles might include:

Understanding the Total Implications of our Actions

- Full-Cost Pricing
- Informed Decision-Making
- Maintaining our Natural Capital
- A Concern with Quality
- Adherence to Principles of Equity

Expanded definitions of sustainable development have included the need to focus on the appropriate “dimension,” which would include the economic, the human, the environmental, the technological and the spatial.

Sustainable development - as a societal objective - has been criticized as being an oxymoron, too general, and merely a ploy of strong lobbying interests who want the primacy of economic development to continue in development planning. Definitions of sustainable development abound; for example, Pearce *et al* (1989) list 13 pages of definitions. Despite the vagueness of the term, it has been an important catalyst in educating the public on the interrelationships between environment and society. It has also been pivotal in assisting institutional efforts to include various stakeholders - environmental groups, Aboriginal peoples and so on - in the decision making process. A second major result of the focus on sustainable development has been an explicit acknowledgment of the role of poverty as a major cause and effect of global environmental problems. This recognition has been an important component of sustainable development from the beginning; it is also explicit in the environmental security literature.

¹ Here I use “instrumental” in the sense of Habermas’ instrumental vs. symbolic values. That is, instrumental implies the search for a better specification of the links between environment and security, while normative approaches focus on policy prescriptions.

Work on sustainable development has taken a number of forms, from the level of general discussion to the analytical (e.g., indicators of sustainable development). In addition, there have been numerous government initiatives at all levels to promote sustainable development as a major planning objective. In recent years, there has been a move away from using the term “sustainable development” towards equally as broad but less problematic terms such as sustainability and sustainable livelihood security.

Human Security: the Common Bond Between Environmental Security and Sustainable Development

As noted above, the fundamental difference between research on environmental security and sustainable development has been the instrumental nature of the former and the normative nature of the latter. While there has been an attempt by some analysts to impart a normative dimension to the environmental security work, this has done little to advance the effort to better understand the relationship between environment and security. The apparent overlap between environmental security and sustainable development - at least initially - was in the importance given by each of the cause and effect relationship between poverty and the environment. In both cases, however, this key area was virtually ignored in favour of more popular issues - such as environment and violent conflict, or environment and trade.

In recent years, it appears that these two research/policy agendas have been converging. The call for a “third wave” of environmental security research (Levy, 1995) and the need to consider eco-regions and the local dimension of environmental change and conflict have guided this research towards the sustainable development area, while sustainable development work has moved towards a broader conception of sustainability based on human security.

What is “Human Security?”

Initially, human security was interpreted as meaning threats to the physical security of the person. For example, the *Universal Declaration of Human Rights* adopted by the UN in 1948 states that “everyone has the right to life, liberty and the security of person...” However, the concept now encompasses economic, health, and environmental concerns as well. It is, as the UNDP (1994) notes, an “integrative” as

opposed to merely a “defensive” concept. Their definition of human security - and the one that is used in the title of the proposed research programme - includes seven categories of threats:

Economic security (assured basic income)

- Food security (physical and economic access to food)
- Health security
- Environmental security (access to sanitary water supply, clean air and a non-degraded land system)
- Personal security (security from physical violence and threats)
- Community security (security from ethnic cleansing)
- Political security (protection of basic human rights and freedoms)

This concept of human security has a spatial component as well. The UNDP recognizes global challenges to human security, which arise because the threats are international in nature. Included in threats to global human security are:

Unchecked population growth

- Disparities in economic opportunities
- Excessive international migration
- Environmental degradation
- Drug protection and trafficking
- International terrorism

The appeal of the term “human security” is that it recognizes the interlinkages of environment and society, and acknowledges that our perceptions of the environment, and the way we use the environment, are historically, socially and politically constructed.

Conclusions

The purpose of this short paper was to compare the concept of environmental security with that of sustainable development, and comment on the research and policy activities unique to each. Both of these areas have generated an enormous literature, and it is impossible to do justice to either in the short space allotted for this review. Both concepts suffer from problems of definition, and both have been co-opted by groups choosing to interpret these concepts for their own use. The fundamental difference between the two lies in the instrumental or analytical nature of the research on environmental security (or environment and conflict) - at least most of the research - and the normative nature of the sustainable development research. While there have been common themes in both of these areas - such as impoverishment and the environment - for the most part they have been the purview of disparate research and policy groups (except in the popular literature). However, this appears to be changing. There have been suggestions that environmental security work needs to focus more on local level conflicts and broader conceptions of security, along with an emphasis on eco-regions or ecological zones. Similarly, the sustainable development "community" has started to focus its attention towards the notion of human security (or sustainable livelihood security) and (as it always has) concentrate on the community level. One framework proposed to facilitate the interaction between these groups is that of environmental change and "human security." Although the concept is still being developed, it may prove a useful focus for future research. Figure 1 provides a simple schematic of this process. It is important now to move beyond the issues of definition and bring these two "communities" of scholars/policy-makers together.

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**WORKSHOP 3:
POLICY RESPONSES TO ENVIRONMENTAL DEGRADATION AS A
THREAT TO INTERNATIONAL AND NATIONAL SECURITY**

The Global Security Agenda

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The views expressed below are the views of the author and do not represent the views of the Department of Foreign Affairs and International Trade.

The term globalization most often refers to the increasingly integrated nature of our international economic system, made possible through the spread of technology and the information it carries. It has been accelerated by international policy-making favouring liberalization. Though this is the most visible global trend, globalization in fact connotes a number of interlocking trends which are mutually reinforcing and affecting citizens in ways we are only beginning to understand, much less influence.

What Going Global Means

Most obviously, globalization has diffused economic decision-making, away from governments and increasingly into the hands of multinationals, fund managers, and currency traders. This has highlighted the extent to which the power of nation states is hampered by certain fundamental factors, including geography, and by decision-making processes that have more to do with bureaucratic structures developed at the time of the Hapsburg Empire than with the micro-chip. But globalization is not solely about changes in the way we make decisions: it means, at the most basic level, that local events contribute to global trends, and that those trends in turn affect local events.

The interaction characteristic of globalization is increasingly a closed loop. Currency markets most graphically demonstrate how local developments can set off global trends or be swept away by them. But other phenomena reveal the same dynamic. Migration has become a truly global fact, spurred on by urbanization, ethnic conflict, environmental change, or simply raised expectations made possible by global communications. But when increased migration is seen against the backdrop of

population growth at 100 million births per year (a billion every decade), migration takes on a whole new meaning. Increased controls and surveillance in developed countries hardly deal with the cause of the problem. In fact existing controls look more like the proverbial finger in the dike.

Environmental degradation, and its impact on environmental security, has become a paradigm for the way in which the closed loop of local and global phenomena increasingly interact and play off each other. During the 1970's and 1980's, western publics began to understand better how air and water pollution have a negative and costly effect on both renewable resources and human health, and that pollution recognizes no borders. The relatively high level of some toxins found in the arctic food chain originate in Eastern Europe and the FSU. Chemicals released into the air in Mexico have been found in the Great Lakes. There is also a more sophisticated appreciation of the truly global phenomena of global warming (and climate change), the depletion of the ozone layer, and the loss of biodiversity.

But the initially successful strategy adopted to deal with ozone depletion now appears to be the exception rather than the rule for international action. This was due to the fact that the effect of the problem was highly visible (UV rays), a relatively simple solution was available (CFC reduction), and the money was manageable. None of these criteria apply to either global warming or biodiversity loss (and de-forestation), where near-term and expensive actions are required to modify medium-term and somewhat unpredictable impacts. In fact one of the impacts is that climate change will be itself unpredictable, and this could unleash unforeseen trends in the globalized economy at the most basic level: the food chain.

In terms of more traditional security concerns, the most serious threat to Canada in the post-cold war world is less a missile attack from Russia than the horizontal proliferation of weapons of mass destruction. The realization that China will be able to hit any target on the North American continent within ten years itself gives pause for thought, while security will take on an entirely different meaning when an India, or a North Korea, have the same reach. A nuclear bomb in the hands of terrorists, though unlikely, is not impossible. Moreover, the use of a nuclear device, for example on the sub-continent, would fundamentally change the global security equation in terms we can barely comprehend, but should. The global problems of ethnic and religious conflict are challenging the capacity of regional and international organizations to deal with them, and yet such conflicts often spur nuclear proliferation, migration, environmental degradation, and famine, which force the international community to react by other means, often ad hoc. So too, globalization brings such things as terrorism, organized crime, and the drug trade home to people with an immediacy that would have been impossible only a few years ago.

Foreign Policy Instruments

Hence globalization raises two distinct, but inter-related issues: the global trends (economic, cultural, environmental, etc), and the impact of these trends on decision-making. Foreign ministries have reacted, in the initial phase, by cooperating to put in place mostly external controls. Arms proliferation, migration, environment, crime, drugs have all been dealt with, in part successfully, by this approach. Such regimes now control people crossing borders, the possession of conventional or nuclear weapons, or how much CFC is released into the air. What can only be described as the flowering of international law attests to this process alone. But these controls, by definition, have rarely gone to the root of the problem. The insufficiency of multilateral regimes alone to deal with global trends has been highlighted by the international conferences on global issues that have sprung up in the last ten years. The reason for this dissatisfaction is twofold: not only has international negotiation led to agreements at the lowest common denominator, the implementation of commitments has been, at best, uneven. Development assistance to help poorer countries implement multilateral commitments has often failed to materialize. Yet there is little doubt that the most effective multilateral regimes implicitly or explicitly require increased intervention in the affairs of states. Even the new trade regimes, like arms control agreements before them, contain a high degree of intervention and verification.

The question is how to remedy the fact that rules-based systems have made insufficient progress in some important areas dealing with global problems. The issue becomes only more acute when it is understood that intervention at the local end of the loop requires stable and open political systems: still a large assumption in many parts of the world. Moreover, even when the institutional basis exists to implement solutions, we still do not understand fully how our various solutions are interacting. For example, the prosperity and competitiveness fostered by transparent trade regimes can be directly affected by multilateral regimes that reduce greenhouse gas emissions. Development assistance is undermined if growth in developing countries is constrained by environmental degradation. Mass migration and conflict can result from a depleted resource base or severe natural events aggravated by environmental change. Issues like nuclear safety, the disposal of nuclear waste, and nuclear proliferation, require truly global regimes to be effective and credible locally.

In sum, global trends, and the arrangements we devise to manage them, cut across all aspects of foreign policy: from bilateral and multilateral relations, to development, security, trade, and international finance issues. But there is a very limited understanding of how this proliferation of regimes fits together. Expert negotiations and decisions in one field often have little sense of how their work affects other areas.

Perhaps as important, some areas, such as trade, have well-developed regimes (including dispute mechanisms) while other negotiations cannot get past issues of sovereignty. One reason for this is that trade agreements have fairly precise outcomes over a relatively short time-frame.

The New Consensus

The end of the cold war has made possible, in principle, and for the first time, genuinely broad-based strategies to deal with emerging global problems. The Beijing Women's Conference, the Copenhagen World Summit on Social Development, the Cairo Population Conference, and the Rio Earth Summit are examples of how international consensus can now be fostered. All of these conferences deal with the "human security" agenda, which recognizes the increasing interdependence of individuals on a global scale. The emergence of a fragile consensus about the very nature of the problem parallels the significant advance of liberal values almost everywhere, demonstrated most graphically by the wave of democratization that has swept the globe in the last few years. Not only in Eastern Europe, but in Latin America, Africa, and Asia, democracy has made remarkable strides. Almost three quarters of the world's people now live under relatively pluralistic regimes.

Nonetheless, despite the demise of cold war confrontation, and the very real emergence of a new consensus, these conferences have not been accompanied by very much in the way of new rules-based systems. This is becoming clear at a time when the independence of nation-states is being affected by the very global phenomena they need to address. In the developed world, the political will to act is weakened by debt overhang and the consequent scepticism vis a vis government action generally. In the developing world, the global spread of liberal values, a prerequisite to sustainable action at the local level, is sometimes having a deleterious side-effect. Diverse local cultures and traditional values are seen to be threatened by the homogenizing impact of western ways of life. The triumph of democratic systems and human rights is often accompanied by a clash with tradition, and a reactionary back-lash that undermines democratic gains. Even for Canada, cultural issues are an important subset of what is perceived as the ineluctable spread of McWorld.

Yet it is the spread of liberal values, and the rule of law on which they depend, that is integral to the extension of global security in its various aspects. The promotion of these values is not an act of western altruism, though the abuse of human rights anywhere diminishes us all. Our security, and the protection of our values, is indelibly linked with the increasingly global systems of cooperation needed to tackle new,

transnational threats. International cooperation cannot be sustained without stable democratic regimes.

That international cooperation has been mostly focused in the multilateral system, and the UN in particular, as the principle institutional base. Though international treaties, including treaties negotiated under the auspices of the UN, have emerged as the preeminent tool to deal with global change, the international organizations and funding intended to help states implement those undertakings have fared less well. Traditional development assistance directed at economic growth is in decline at a time when external regulation is patently insufficient for treating the root causes, for example, of environmental change or migration. On the other hand, the promotion of western values alone is insufficient cause, in the public mind, for governments to become involved in the alleviation of misery wherever it is found. This is the result not only of less support for state intervention. The post-war consensus as to what are core Western values is breaking down.

Re-Engineering Societies as a Foreign Policy Strategy

After WWII, a similarly broad consensus underpinning foreign policy prevailed in the West. It obtained public support because international commitments, even commitments in the third world, were justified in terms of political-security interests. These interests were often nothing more nor less than the containment of Soviet influence, and deterrence vis a vis the forces of the Warsaw Pact. Grand strategy was synonymous with the management of inter-state relations. We now know that this emphasis precluded somewhat the consideration of other foreign policy strategies, including strategies to come to terms, earlier, with global trends. The irony is that, when the USSR no longer casts a shadow over foreign policy, the treatment of global issues has failed to benefit from the so-called peace dividend.

One thing is sure: the cold war focus on inter-state relations has been succeeded by an emphasis on re-engineering societies. Though such a strategy was implicit in arms control, trade, and environmental regimes, it has emerged more recently as the way to deal with the new intra-state nature of conflict (viz. ethnic rivalry). Cambodia, Somalia, Bosnia, and Haiti come readily to mind. UN military and civilian contributions have been combined in a total approach geared to pacify societies which have gone bad. That western public support for these efforts has been weak is demonstrated by the nature of the exit strategies. But weak support results from the fact that vital interests are not perceived to be at stake. Nor can it be excluded that these operations will fail, as Somalia has already failed and as Cambodia is in the process of failing. Of course the common denominator is that all of these operations are after the fact, and that western

intervention follows no grand strategy, and certainly not a strategy benefiting from broad public support in principle. Similarly, our strategy for dealing with Eastern Europe, especially Russia, is less concerned with influencing the way these states behave externally, than with influencing their internal make-up. That this kind of foreign policy has become a hard sell domestically comes as no surprise. It is a dramatic shift from the grand strategy characteristic of the cold war.

Where does this leave the kind of internationalism, and interventionism, that is required to tackle global problems? No single strategy is sufficient to deal with the mix of issues that now faces foreign ministries. Dealing with the big players, such as Russia, China, Brazil, the Europeans, Japan, and the USA, calls for the kind of realism that characterizes strategies based on inter-state relations. Global issues, and the international legal regimes intended to manage them, require more intrusive arrangements backed by extremely broad consensus. They necessitate preventative action, and action that supports sustainable solutions. But what kind of intervention holds out the prospect of garnering public support when the interventionist policies of the welfare-state are under attack at home?

There is increasing public uncertainty about the role of both militaries and development assistance as instruments of foreign policy. Intervention by government, at home or abroad, is seen, often as not, as part of the problem. The international context in which these foreign policy instruments operate is also changing. For example, the impact of development assistance on economic growth is a rapidly diminishing factor in many countries compared with private sector investment. In fact that investment has been encouraged by more coherent macro-economic policies. Hence soft public support for both international security and development assistance argues strongly for the establishment of new foreign policy criteria that will provide greater selectivity in promoting a strategy for global change.

Implications for Canada

The goal of re-engineering societies is nothing new in foreign policy, looked at from a distance. It used to be called colonialism. The difference with the interventionist policies of today is that there is insufficient public support to sustain them, where altruistic motives appear to be the only driving force. How then can we get beyond inter-state regimes, when global problems require a more activist, even interventionist, approach? The real solution appears to be the victory of globalization, if that means integration into the world of liberal values, democratic government, free market economies, and vibrant civil societies. Indeed, what one sees in a Bosnia or a Haiti is the utter breakdown of globalization, a breakdown that risks itself becoming a global trend.

In what way, therefore, can we contribute to the development of local capacities that will permit global solutions?

Bilaterally, Canada has a role to play in forging relationships with key states, on specific issues, in order to put in place the institutional building blocks necessary to tackle global security problems. This does not mean we should rank regions according to their importance for Canadian interests. But it does mean we should identify those countries within all regions that are crucial to our interests in global security. For example, some countries are quote regional stabilizers unquote. Without healthy regional powers, the fate of their neighbours will always be hostage to regional instability, whether in the form of drug cartels, terrorism, economic disruption, or ethnic turmoil.

Perhaps more importantly, if preventative action is to characterize our strategy, scarce government resources should be directed at reinforcing democratic progress and freer markets as the key contribution to the development of global solutions for global problems. It may have to be reinforced occasionally by the kind of traditional peace-keeping operations for which Canada is known and which build confidence in democratic processes. Finally, some countries bear an obvious and deep responsibility for the global commons, whether because of forest and biodiversity reserves, because the size of their populations will potentially generate huge amounts of greenhouse gases, or because they are particularly active in shaping the environmental agenda.

A differentiated strategy should give priority to (1) partnerships with key developing economies; (2) countries that have regional influence or leadership (for better or worse); and (3) countries whose environment affects the global commons. The reason is simple: cooperation with these types of states will have a multiplier effect, at a time when limited resources are available. The limited nature of those resources also suggests that cooperation should be slanted toward democratic development and the promotion of freer markets, since open political systems and markets are crucial to the success of those rules-based regimes dealing with global trends.

Moreover, there is a need for reform of those multilateral institutions whose mandate provides for a special role in developing solutions for global problems. At the most basic level, some medium term problems are simply not amenable to solution without sufficient political will, and this requires the mobilization of domestic constituencies. Though the UN is facing a financial crisis unparalleled in its history as the result of a difficult USA Congress, basic questions about the UN, its role and structure, have been common fare in most Western capitals for a long time. There are new questions about the grandiose approach of holding summits and special conferences when follow-up appears so modest. Nor has the vast array, and splintering, of UN

economic programmes and agencies helped generate a sense of purpose. The financial crisis facing the UN may just provide the opportunity for institutional reform. Without genuine reform, public support necessary to global solutions will remain weak, with credibility and relevance still an issue.

But don't hold your breath. We are all aware of the vested interests militating against radical change at the UN. At a minimum, we should put fences around those parts that work, and cannot be replicated elsewhere. The real answer, of course, is not one of simply re-jigging UN institutional machinery. The inter-governmental process itself is the reason we get lowest common denominator solutions, that protect the often short-sighted interests of individual states. No party is negotiating on behalf of the truly global citizen. For the rest, including issues such as environment and environmental security, we might look at international regimes that have performed well in order to draw some lessons. The GATT has been an international success because it started small and grew as others acceded to its rights and obligations. The message seems to be that you should begin with a carefully crafted and disciplined exercise, probably among like-minded countries. You have to get the instrument right before getting others to sign on. Otherwise, you risk obtaining broadly supported language that says everything and nothing to everyone and no one. If this selective strategy does not work, effective governmental action directed at global change will have to wait out two ongoing processes: deficit and then debt reduction, and the impact of global change itself. When climate change affects developed economies and living standards, or migrants overwhelm our controls, it will be too late to roll back the film. But we may get a United Nations Mark II in the bargain.

In the meantime, globalization might just be in the process of preparing the ground for the emergence of a global civic society. At minimum, it seems implicit in the surge of democratization. It is this new civic society, aware of itself as a global actor, that will in any event be crucial to influencing global trends. The best thing governments could do would be to hasten its early arrival, by providing the tools and the information to assist dialogue and the emergence of the new consensus. The spread of democratic regimes alone will be insufficient to deal with global problems, without a consensus about the nature of the problem and possible solutions. Finally, governments need to look at how some kind of policy coherence can be brought to bear on the new global regimes. Whether this is best done by referring conflicting regimes to the International Court of Justice, or by intensifying policy coordination through the establishment of a new forum, is unclear. One thing is: governments can walk away from many things, but policy leadership is not one of them.

What Should Foreign Affairs and Canada Do to Promote Environmental Security?

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In preparing this paper I called a few people at Foreign Affairs to find out what they were thinking about environmental security. Everyone thought environment was important. Several people said they were still confused by the term sustainable development. They said it was important to incorporate environment into bilateral agreements and in multilateral institutions but they were wondering about the UNCED strategy. Some people suggest that environmental security may provide a starting point for a more "instrumental approach." By appealing to a sense of long-term self-interest environmental security might have greater public and political salability. It would also be a strategic building block in re-defining global security as a foreign policy priority.

This paper reflects on the last five years of international negotiations. Considerable progress has been made in putting environment on the international agenda, but as a result of these successes we are now encountering the next set of "barriers". The main thesis of this paper is we need political commitment to a new set of tools, processes and institutional arrangements if we are going to overcome the barriers and move the sustainability agenda beyond the dance of the square brackets out into the world. The concept of environmental security can play a useful but limited role in the task.

This paper offers some brief thoughts on how to frame environment in foreign policy. It suggests that it may be useful to reflect on recent experience before we start down another "new" road. And, finally it proposes a number of actions Canada should include in a foreign policy to promote environmental security.

Some considerations in framing environment in foreign policy

The purpose of the workshop was to explore the utility of the notion of environmental security in foreign policy. The unspoken assumption is that sustainable development is a little too woolly. Clear thinking is important here: Environmental security and sustainable development are different doorways into the same paradigm. It is not a question of either one or the other - each has their use and limits. There are several considerations to bear in mind.

1. In foreign policy analysis, the traditional approach is to ask: what is our national interest in this issue? The analysis is shaped by political priorities (currently jobs and unity) and constrained by political timeframes. In dealing with environmental problems one needs to include a long-term, global systems view. There are a growing number of examples (e.g. coastal fisheries) where a short-term view has led to crisis - all over the planet. Inevitably, Canada will be forced to react to environmental crises that affect our national interest. But this should not be the dominant approach. Analytical and political integrity requires a long-term and global systems view. (Canadians are a very sophisticated group when it comes to environment. Most Canadians will appreciate a government that anticipates and prevents crises). It would be very appropriate for Global Issues Branch to pioneer such analysis.
2. The environmental security framework has utility in that it encourages us to take a systems view and to go beyond our short term interests. It encourages us to anticipate the ways in which environmental problems interact with other systems and ultimately generate threats to security. At first glance it seems to offer a simple and compelling rationale for action (and foreign policy). The danger is most citizens and politicians may miss the subtleties - careful application of the concept is essential to avoid embarrassment. For instance, the temptation (for non-experts) is to assume a causal link between environmental insecurity and conflict. What is more likely (and probably more accurate) is that social, economic and political failures cause the environmental problem which caused insecurity and conflict. At this point, it may be most expeditious to adopt environmental security as a foreign policy goal and rationale and to monitor the evolution of the discipline.
3. In the February workshop, the practitioners argued that environmental security has its greatest use at the local level as a framework for analysis. In the broad sweep of foreign policy the contribution of the field work is indirect. Analysis and images of environmental and societal collapse (happening right now in a number of countries) provide a powerful rationale for effective and proactive policies to promote sustainable development.

4. For many people, the term sustainable development makes intuitive sense (i.e. we should leave something so future generations can meet their needs) but the term is amorphous and confusing when it comes to what we actually do. However, it is not useful to discard the term as some suggested in the workshop. It should be seen as the organizing framework for our theory and practice about sustainability. It is an "inter-discipline" in the making.
5. What may be more important is to be clearer about our strategy to promote sustainable development. Many NGOs have suggested we should focus on developing sustainability - it is a process that involves developing the indicators, the programs, the policy instruments, the institutions that will help humanity live within the carrying capacity of the global, life-support system.
6. There is scientific uncertainty about the carrying capacity of local and global ecosystems. Many variables are involved, including the economic notion that the market will find or invent substitutes for scarce goods (I am still searching for substitutes for ozone layers and clean rivers). There has been reasonable doubt about the need to act. However, there is growing evidence that we have crossed three global, ecosystem thresholds (co2, ozone, declining marine bio-mass). Given the high cost of a misjudgment, we need to bring the process of risk assessment and risk management into the public policy process. The concept of environmental security could provide a simple way of framing a very complex set of public policy questions.
7. At this point in time the most strategic task for foreign policy in the environmental area is to build international agreement on the tools and processes to ensure we live within the global carrying capacity. We are building systems to inform private choices and public and political decision-making.

Let me summarize, Canada should continue to address environmental issues where our national interest is threatened. But in the process of re-thinking our foreign policy on environment, we should also change our frame of reference. We should also analyze our interest as stakeholders (and as citizens?) in a global system. The concept of environmental security can play a useful rationale in this work. But other issues need to be addressed before real progress can be made.

What is the problem? Why is progress so difficult on the environment front?

Let me put this proposal in a historical context. Below are four stages in the evolution of our approach to environmental matters:

1. Reduce the negative local impacts of growth through environmental assessment, pollution control, etc.;
2. Build systems and standards (public and voluntary) to reduce the negative global impacts of production and consumption patterns;
3. Develop indicators, processes and policy instruments to ensure that the cumulative impact of human activity on environmental productivity and environmental services is sustainable;
4. Redefine economic concepts and transform trade and investment practices to ensure they promote sustainability.

We have been doing stage one for thirty years with growing effectiveness and success. We have been developing stage two approaches in a serious manner for ten years (e.g. ozone, ISO) and progress is visible. But given the extent and complexity of human activity on the planet we are not certain about how we are doing. We may be doing enough. But we will never know until we have appropriate, transparent and credible indicators, systems of national accounts, systems for environmental cost accounting, etc. UNCED helped to put stage three measures (indicators, processes and policy instruments) on the international policy agenda. Much of the theoretical work is done. But we have made little progress in building agreement to implement and use these tools. Progress on stage four is unlikely until the first three stages are well developed and implemented internationally.

Some reflection on the UNCED process would be useful to help us refine our diagnosis of why progress is so slow on stage two and three measures. In particular I want to point to a number of barriers that were evident during the UNCED process that account for the slow progress since Rio:

- The national policy formulation process has become more complex. The emergence of a global marketplace and the parallel emergence of cheap global communications networks are generating massive structural and policy change in all countries. (In the next five years we are likely to witness more dismantling and re-inventing of public policy than in the last 50 years). What is new is that the policy dialogue on economic, social and environmental policy has to be international. More and more, important elements of national policy will be conditioned by international forces. In a global economy no country is prepared to allow non-economic considerations to undermine its economic opportunities.
- Our system of global governance and in particular, the inter-governmental process is incapable of dealing effectively and strategically with the global issues that are emerging.
- The public wants action on jobs and environment, but old style public policy often presents an unnecessary tradeoff between national jobs and a global environment.
- Many people look to governments as the key actors. But government options to act

are constrained by limited financial resources and other factors. We have been slow to identify new roles for government (as facilitators of the consensus-building process) and to acknowledge the roles and responsibilities of non-state actors.

- There is inadequate monitoring and analysis of our global economic, social and environmental systems. People do not know what is happening to the planet or what progress has been made in dealing with global issues.

All of the above "barriers" have one thing in common - it is one of the main reasons that progress is so slow on the sustainability agenda. Our central problem is we learning to manage a global system. Recent experience suggests we are unlikely to make much new progress, unless we approach these barriers in significantly different ways than in the past. We need the tools and institutions to effectively manage a global system and we do not have them.

3. What needs to change? What should Canada do?

For a variety of reasons, global issues are emerging which can only be solved through international cooperation. Environmental problems are the clearest examples of global issues. Without significant international cooperation, little progress can be made. My principle concern is the conditions do not exist to solve global issues. We need to re-think our approach and analysis.

Let me give an example that illustrates the kind of global issues likely to emerge in the next two decades. There is considerable evidence that we have crossed a threshold in the ability of the global eco-systems to absorb CO₂. (When we cross a threshold the ecosystem may not return to the same stable state. In fact the new state may be distinctly unfriendly to humans). Someday soon we are going to confront the problem of how we share this "environmental service" that the global ecosystem provides when it absorbs carbon. If many new consumers in the south want cars or carbon producing electrical generators, how will we share the global carry-capacity for carbon? Will we divide the world's carrying capacity by population? By GNP? Clearly new kinds of tools and instruments are needed. It is going to take a decade to put them in place. We should start now to build the infrastructure to handle such problems.

If the world were working properly, global issues would be resolved by an effective system of global governance (not necessarily a "world government"); that system would be able to articulate the global public interest and develop effective global policies to preserve global public goods.

Global issues >	Resolved in > effective system of global governance	Agreement > on the global public interest	Effective > global policies	Protection of global public goods
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In practice, the system is not working. It will probably take 50 years to build an effective system - if we start now. There are several intervention points where action and support by Foreign Affairs would make a huge difference - now. Below are a number of recommendations that address the real barriers to progress and make a strategic contribution to achieving global and environmental security:

a) Build public awareness of the emerging global order:

Increasingly Canada will have to cooperate and coordinate with other countries in managing global systems. Many Canadians understand that a new set of rules is emerging around the global economic system. Intuition tells them that there is a global ecosystem, but few are aware of the norms (eg human rights) in the emerging global social system and most are left speechless by our system of global governance. Canadians need to understand how and why a global system is emerging.

Recommendations:

1. Our role as citizen is our most encompassing role. It needs to be re-invented in the context of a global system. One way is to highlight our role as global citizens. Foreign Affairs can help Canadians to recognize that they are simultaneously citizens of a city, a province, a nation and a planet and that we have responsibilities at each level. It would help if the Minister and Department used images and language like global citizenship, global security, global environmental security, global public interest, etc., that located Canada in a global system.
2. The Minister and Department should adopt environmental security as a foreign policy goal and use it to educate Canadians about the policy choices we make. We should be clear it is a proactive strategy in which Canadians, as global citizens, are working with other global citizens to build the tools, policies and institutions that will ensure humans live within the carrying capacity of the global ecosystem.

b) Build an effective and strategic system of global governance:

We will not make significant progress on global issues like environmental security unless we change the process of decision-making. Most talk of UN reform focuses on UN programs and their effectiveness. The real problem is the inter-governmental process - the board of directors is not doing its job. Nation states act in their own short term self interest - it is seldom that anyone speaks from the perspective of the long-term collective interest. Canada is one of the few. Given the way the UN works (voting in blocks, EU, G77, etc) Canada has an a unique opportunity to consciously bring a global voice to the UN. There are several institutional reforms that Canada could promote that would create the conditions for effective action on global issues.

Recommendations:

3. On global issues, the General Assembly has the wrong actors at the table. It is like allowing the provincial premiers to run Canada. Canada should support efforts to create a directly elected citizens assembly with a clear mandate for policy development around global issues where a collective approach is in the long-term interest of all. The objective is not to set up a world government, but to bring global perspectives into a nationally oriented debate. (Much creativity is possible. In its first five years the new body could report to the GA. In the second round of elections, voters could be asked to give the body more authority to deal with global issues in specific areas, etc.). See thoughts on stepping stones below.
4. Canada should support initiatives and processes that make the current inter-government process more transparent and accountable. For instance, it should support organizations that monitor and report on government behavior at the UN with the objective of making the governments more accountable at the national level.

c) Support emerging global civil society

Citizens around the world are aware of global issues; they are organizing themselves in NGOs and in national, regional and international networks; over the next few decades these networks will provide the infrastructure for a global civil society. As NGOs, unions, women, youth, churches, professional groups and business build global networks, they are creating fora for debate about the global public interest. Innovative processes for information-sharing and consensus building will engage non-state actors and mobilize new resources to resolve global issues. In the short run, the participation of NGO networks in UN processes contributes to the transparency and accountability of the system. As NGOs become more organized the system is likely to become more accountable.

Recommendation:

5. Canada should support and work with NGO networks as one of the foundations on which global civil society is being built.
6. Canada should support the establishment of a civil society assembly (proposed by the Commission on Global Governance) as a stepping stone to an elected citizens assembly. In particular, the Forum for Civil Society should experiment with processes to expand the ownership of global issues and to find highest common denominator solutions and not replicate "dance of the square brackets" found in other UN fora..

d) Processes to mobilize new financial resources

Governments do not have enough resources to implement the action plan contained in Agenda 21. The problem is not a shortage of money. There is lots of money in the world - the real task for the UN is to engage civil society in the planning process so when the plan is finished civil society wants to invest in and implement the plan because it is THEIR agenda.

Canada has played a key role in opening the UN to many different kinds of stakeholders (the major groups of Agenda 21). It is time to take the next step. We need to experiment with formal, informal and electronic policy dialogue processes that allow interested "stakeholders" to be more engaged in the process of agenda setting, problem posing, analysis, generation of alternatives, etc.

Recommendation:

7. Canada should experiment directly and encourage the UN to experiment with new kinds of multi-stakeholder processes to generate commitment and mobilize new resources for action programs to resolve global issues.

e) Take the preparation of a departmental sustainability plan seriously

Each federal department is required to submit a departmental sustainability plan to the new Commissioner for Sustainable Development in the Auditor-General's Office. This is a very significant opportunity for the department to organize its approach to sustainability. NGOs and citizens will be watching to ensure that the DFAIT has integrated sustainability into its own policies and practices and those of the UN and international financial institutions where DFAIT plays a role.

Recommendation: 8. Take the opportunity to prepare this sustainability plan seriously.

f) Support policy instruments to promote sustainability:

Sustainability indicators, a system of national accounts that incorporates sustainability, and various economic instruments are key tools to promote sustainability. For instance, environmental cost accounting has been promoted as **the** most promising policy instrument to promote sustainability for some time. It allows the producer to incorporate the cost of behaving sustainably in the price of the product or commodity. (It could result in a very significant resource transfer from North to South). At an inter-sessional meeting of the UNCSD on the "Economics of Sustainability," 20 famous economists said that the theory is ready. The next steps include: 1) build the political will nationally and internationally to start using environmental cost accounting; 2) educate consumer and producer; 3) build the necessary institutional infrastructure to ensure that producers are using the additional resources to develop sustainability, etc. The problem is we require political courage to get started.

Recommendation:

9. Canada can play a key role in advancing the sustainability debate to the next stage. We need to work closely with a number of stakeholders and other producer countries to set up a demonstration or policy experiment. We should choose one commodity as a test case (a fish or forest product would be ideal) to see if environmental cost accounting is feasible. (If it is not feasible, then there are very significant implications for any strategy to promote sustainability).

g) Re-mandate the UN Commission on Sustainable Development

There will be a special session of the General Assembly in June 1997 to review progress since Rio. Despite its limited mandate (monitor progress in implementing Agenda 21) the CSD has been one of the more innovative and effective UN fora. At times it has provides a very useful place for information sharing, policy dialogue and policy coordination on sustainability. Technically, the CSD mandate expires in 1997. There is a need to re-think the CSD mandate to make the body far more strategic and to reflect the important role civil society plays as a partner in achieving sustainability.

Recommendations:

- 10 Foreign Affairs in cooperation with the other Canadian stakeholders should use the Special Session to give a very high public profile to sustainability; to encourage a fundamental assessment of progress to date and lessons learned; and to re-mandate the CSD as a much more strategic forum for policy dialogue and coordination. (For instance, national reporting processes should used to identify the barriers to sustainability that require international cooperation to solve).

11. Many NGOs are highly appreciative of the innovative policy dialogue process we have with Foreign Affairs on the CSD. We would like to work together to make it more effective and strategic.

h) Assess what we have learned in the last five years:

The task of developing sustainability is a learning process. After five years of very intense effort around the sustainability agenda it is time to re-assess where we are, what we have learned and what we need to do next.

Recommendation:

- 12 In the context of Canadian preparations for the 1997 Special Session of the General Assembly on the Review of Agenda 21, Foreign Affairs in collaboration with the Department of Environment and other stakeholders should facilitate an assessment of 1) what lessons Canada has learned about developing sustainability and 2) what national and international priorities have emerged for Canada from this experience. We should encourage other nations to do the same so the Special Session can be as effective and strategic as possible.

Conclusions and summary:

1. This paper suggests that both environmental security and sustainable development have important and complementary roles to play. But neither concept deals adequately with some of the barriers that have emerged since UNCED to slow progress.
2. The conditions do not exist to successfully deal with global issues like environmental security. I have proposed a number of process and institutional changes to develop our collective capacity to manage the emerging global system.
3. The Global Issues Branch should experiment with methods of analysis. We need to identify our short-term national interests and also, to locate our national interest in a long-term, global systems framework.
4. Adopt environmental security as a foreign policy goal because it provides a powerful rationale for developing the information systems, tools and policy instruments to ensure humans live within the carrying capacity of the planet.
5. Build public awareness of the emerging global system and our roles and responsibilities as global citizens.

-
6. Build an effective system of global governance by addressing the weaknesses of the inter-governmental process, in particular its inability to deal with global issues.
 7. Support the emergence of a global civil society as a forum to discuss global issues and the global public interest.
 8. Experiment with new kinds of global multi-stakeholder processes to generate commitment and to mobilize resources to resolve global issues.
 9. Prepare a departmental sustainability plan
 10. Push environmental cost accounting into the testing phase.
 11. Re-mandate and redesign the Commission on Sustainable Development to be a more strategic forum for policy dialogue and policy coordination. In the context of the 1997 Review promote a national and international process to assess what we have learned from the last five years of efforts to promote sustainability.
 12. Generally, Canada and Foreign Affairs played a leadership role in round one of the sustainability debate for this we are all grateful. It is now time to summon the courage and political will to move to round two and to start to experiment with some of the tools and policy instruments that will make sustainability possible.

ANNEX

ANNEXE

AGENDA

Department of Foreign Affairs and International Trade
125, Sussex Drive
Ottawa, Ont. K1A 0G2

29th February 1996

Chair: Marie Bernard-Meunier, Assistant Deputy Minister, Global Issues and Culture

9:00 Marie Bernard-Meunier: Introductory Remarks

9:15 **Workshop 1: Is There a Case for Studying Environmental Security?**

Michael Keating
Director, "Canada and the
State of the Planet", Canadian
Global Change Program

Global Overview of Threatening Ecological
Factors and Situations

Valerie Percival
Research Assistant, Project on
Environment, Population,
Security, University of Toronto

Report of Empirical Studies: The Links Between
Environmental Degradation and Violent Conflict

John Stone
Director, Climate Research
Environment Canada

Discussant

10:45 Refreshments Break

11:00 **Workshop 2: Definition of Terms**

Paul Painchaud
Director General, International
Institute for Environmental
Strategies and Security
Laval University, Quebec

Environmental Security: Elements of
Definition

Steve Lonergan
Department of Geography
University of Victoria

Environment and Security: Beyond the Notions
of Sustainable Development and
Environmental Protection

Philippe Le Prestre
Director of Research, CEPES
Université du Québec à Montréal

Discussant

12:30 Lunch

14:00 **Workshop 3: Policy Responses to Environmental Degradation as a Threat
to International and National Security**

Robert MacRae
Political and Security Policy
Division, Foreign Affairs

Foreign Policy Instruments

Peter Padbury
Canadian Council for
International Cooperation

Canada's Role in the International Debate on
Environmental Security

David Runnalls
Senior Advisor, International
Development and Research
Center

Discussant

15:15 Refreshments Break

15:30 "Wrap up":

Marie Bernard-Meunier

ORDRE DU JOUR

Ministère des Affaires étrangères et du Commerce international
125, Promenade Sussex
Ottawa, Ont. K1A 0G2

Jeudi, 29 février 1996

Présidente: Marie Bernard-Meunier, Sous-ministre adjoint, Enjeux globaux et Culture

9:00 Marie Bernard-Meunier: Ouverture

9:15 **Atelier 1: Y a-t-il lieu d'étudier le concept de sécurité environnementale?**

Michael Keating
Directeur, "Canada et l'état
de la planète",
Programme canadien des
changements à l'échelle du globe

Survol global des facteurs et situations
écologiques inquiétantes

Valerie Percival
Assistante de recherche, Projet
sur l'environnement, la
population et la sécurité
Université de Toronto

Constatations empiriques: Les liens entre
la dégradation de l'environnement et les
conflits violents

John Stone
Directeur
Recherche Climatique
Environnement Canada

Commentaire

10:45 Pause-santé

11:00 **Atelier 2: Définition des termes**

Paul Painchaud
Directeur général
Institut international de stratégies
et de sécurité de l'environnement
Université Laval

Les éléments de définition de la
sécurité environnementale

Steve Lonergan
Département de géographie
Université de Victoria

La relation entre la sécurité environnementale
et le développement durable

Philippe Le Prestre
Directeur de recherche, CEPES
Université du Québec à Montréal

Commentaire

12:30 Déjeuner

14:00 **Atelier 3: Réponses politiques au problème de la dégradation de l'environnement comme menace à la sécurité nationale et internationale**

Robert MacRae, Direction des
affaires politiques et des
politiques de sécurité
Ministère des Affaires étrangères

Instruments de politique étrangère

Peter Padbury
Conseil canadien pour la
coopération internationale

Le rôle du Canada dans le débat international
sur la sécurité environnementale

David Runnalls
Conseiller principal, Centre
de recherches pour le
développement international

Commentaire

15:15 Pause-santé

15:30 Mot de la fin:

Marie Bernard-Meunier

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