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**CANADIAN AND RUSSIAN ENVIRONMENTAL COOPERATION:
THE CASE FOR INDEPENDENT PARTICIPATION**

by

Lisa Van Buren

**A thesis submitted to the Faculty of
Graduate Studies in partial fulfillment
of the requirements for the degree of
Master of Arts**

Institute of Soviet and East European Studies

Carleton University

Ottawa, Canada

25 September 1992

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Submitted by

Lisa Van Buren, B.A. Honours

**in partial fulfilment of the requirements for
the Degree of Master of Arts**

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ABSTRACT

Canadian and Russian bilateral cooperation on environmental issues marks an important step toward resolving and preventing environmental degradation in the northern hemisphere. It is important, because the problems are of such great magnitude, that no one country alone can effectively resolve them. Cooperation is necessary because pollution crosses political boundaries either directly or in the form of polluting enterprises.

In addition, when countries, such as Russia, experience serious financial difficulties, bilateral cooperation helps address environmental degradation. The fact that Russia is less able to financially support bilateral cooperation than Canada, means that the possibility for mutual benefits is limited. However, Canada does engage in bilateral environmental cooperation despite limitations.

This paper examines the ways in which Canadians are working most directly on environmental issues with the Russians. A particular case is made for the participation of non-governmental, non-business (independent) actors. International cooperation that includes independent actors is presumed to often be a positive factor. It is positive, because independent groups provide a forum for those who may be affected by environmental degradation or who may have

relevant ecological information but who lack resources or lack access to environmental decision-making.

It is found that Canada's cooperative efforts include few independent actors with environmental interests. There are few groups which make cooperation with Russia a priority and some which are unable to obtain support, despite an interest in Russia. In Canada, the main thrust of cooperation with Russia involves government initiatives which do include many business actors and scientists. There are also signs that non-state actors, particularly academic institutes and indigenous peoples' groups participate in ways which point toward greater independent involvement. The Canadian government, at least, states that cooperation should include a broad-base of social concerns.

In contrast, Russian independent groups are far less involved than Canadian groups. As yet, there are few environmentally concerned groups with adequate resources or official support. Despite a wealth of scientific expertise, groups lack the organizational and lobbying skills needed to become more influential. Consequently, cooperative initiatives between Canada and Russia tend to take on government and business priorities.

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INTRODUCTION

This paper is about the attempt by Canadians to reach out to one of their global neighbors, Russia. More specifically, it is about efforts to address environmental degradation and the associated risks to people's health and lives. Given that pollution problems are transboundary and environmental amelioration is in the interest of all people, cooperation between these two countries represents a welcome step toward global healing.

Studies have demonstrated that mismanagement of the environment is attributable in part to a lack of effective mechanisms for enforcement of environmental laws and standards by government. (Andersson 1991, Osherenko 1988, Yeager 1991) These studies argue that businesses and governments sometimes fail to observe environmental laws and standards because of a lack of knowledgeable citizen representation in the decision-making process. Citizen activism is one source of holding businesses and government accountable for their actions.

Businesses fail to protect the environment, it is argued, because goods such as air, water, or intangible assets of nature such as beauty are not internalized in monetary transactions.¹ Thus people have a tendency to undervalue their worth or not take into account the losses or gains for social welfare when these goods are damaged or

¹ In other words, these goods are considered free and any damage to these goods is difficult to calculate in monetary terms.

protected. In the absence of market mechanisms or economic incentives that take into account the external nature of effects on the environment, people who may have a negative impact on the environment are unlikely to prevent such an impact.

Since businesses fail to protect the environment, it is the responsibility of governments and the legal system to create the conditions that prevent and penalize environmental violations. Through the use of environmental policies, governments help the market system internalize the costs of environmental damage. Environmental policies tend to apply a combination of regulatory measures such as prohibitions and discharge permits as well as economic instruments such as liability and compensation for environmental damage.² However, enforcement of environmental laws and standards may not occur. Enforcement may not occur because, as one environmental lawyer explains,

At the level of state governance, there exists what might be termed the "politics of rationality," in which policy choices are made largely on the basis of near term political pressures rather than that of long-term, comprehensive assessments of environmental needs. Law takes an essentially reactive stance to acute (rather than chronic) social crises to secure a certain political legitimacy, the currency of statehood. (Yeager 1991, p. 323)

Government is caught between a need to please both citizens lobbying for economic concerns and those trying to raise environmental concerns. However, political pressures often

² For more on the government methods used in environmental policies see Eberhardt, 1990.

come from well-resourced and powerful economic interests rather than from those who are most directly affected by environmental problems as well as those who have relevant information about environmental problems.

Unfortunately, although citizens can act as a source of compliance, there are limitations to such activism. Without effective enforcement, individual citizens and groups are encouraged to take action either through direct pressure, such as protest, or through litigation procedures. The capability of citizens to prevent negative impacts or demand ameliorative responses is often constrained by their own lack of knowledge to assess environmental conditions, a lack of material and financial resources, and a lack of representation in the decision-making process provided by the government and legal system. Access to information, resources, and decision-making processes are necessary for citizens to be able to make their concerns heard by those in decision-making positions.

These factors are relevant to international environmental issues. For several reasons, environmental problems are not only a domestic concern. First, pollution problems are transboundary; the pollution produced in one country affects countries outside its political boundaries. Second, polluting industries can also move across international borders. The third reason is that because some countries are unable to resolve their own environmental

ills, solutions require assistance from foreign countries which have the resources to address environmental problems.

In the international dimension of environmental problems, it is also necessary to establish mechanisms for regulating polluting activities. Governments may in part fail to manage the global environment and improve social welfare because often their actions are a response to near term political pressures. For example, government prosecutors may ignore illegal dumping of toxic materials in international waters, because the violators who are responsible threaten that heavy penalties will lead to politically embarrassing unemployment. Transnational business arrangements fail to respect environmental laws because their behaviour focuses on near term profits at the expense of planning for longer term stability and growth. Particularly when the stringency and effectiveness of environmental policies differ between various countries, an incentive exists for transnational business to export polluting activities to less restrictive areas.

This paper is based on the premise that in order to resolve conflicts of interest regarding environmental issues, decision-making efforts that involve and represent those who are affected and who have relevant information are a necessary though not sufficient precondition for success. Of course, incorporating the views of all those concerned does not mean problems disappear. Even with a variety of interests represented there are a number of obstacles to

resolving environmental ills. These include the tradeoffs between short-term and long-term gains or losses; the unavailability of accurate information to make decisions; and the difficulty of monitoring and enforcing activities due to climatic conditions, remoteness of affected areas, and resource constraints.

In the arena of international cooperation, there are limitations on every participant's ability or desire to take an active role in enforcing environmental agreements, standards, and laws. For businesses, the need to make profits constrain their desire to observe environmental regulations which may prove to be costly. The ability of governments to act is constrained by near term political pressures. The desire for reciprocity can also be a constraint. When one or more participants is unable to contribute equally to cooperative efforts, the perception of unfairness may prevent cooperation from occurring. Particularly in international initiatives, reciprocity and national interests are important components of effective cooperation. Without the perception on the part of national governments that there is something to be gained from international cooperation, their motivation for doing so is greatly diminished.

As a result of these constraints, some theorists such as Andersson(1991) conclude that some form of international body or regime must be established to help enforce environmental laws or agreements. Such a regime would stand

above individual national interests and would not require national governments to relinquish power to a foreign government. However, international regimes are also limited in their ability to enforce laws due to their dependence on constituent countries for legitimacy. If one country chooses not to conform, then the enforcement capability of regimes is compromised.

Another way of holding individual countries accountable is through activities of environmentally-oriented citizen action groups, non-profit organizations, and academic institutions. They help bring about accountability by publicizing relevant information which demonstrates environmental risks or damage, or information which reveals transgressions or inaction on the part of responsible agents. Effective global governance, as one observer notes,

will require opening the process to far more extensive public participation than is now allowed. Provisions for public review and comment and the possibility of bringing citizen suits do not exist at the international level, nor is there the equivalent of an elected parliament. (French 1992, p. 173)

Legal and resource constraints, limited access to information, and partial or entire dependence on businesses or governments for financial and material support have made it difficult for the public to participate at the international level.

The objective of this study is to determine how grassroot groups in Canada are currently taking an active role in Canadian/Russian relations in light of various

limitations. What are the factors (i.e. limitations, political climates, attitudes) that influence independent participation in Canada's environmental cooperation with Russia? Do Canada's efforts to cooperate with Russia on environmental issues take a variety of interests into account, including the interests of those who are affected by decisions or have relevant information to offer? Why or why not are non-governmental, non-business interests taken into account? The answers to these questions may give some insight into the dynamics which guide current cooperative efforts and into their effect on environmental conditions.

The first steps toward answering these questions is to define the actors this study will evaluate. Although in the international arena the lines between state and non-state actors are sometimes blurred, with businesses acting as the negotiators between countries and governments acting as advocates for domestic business interests, it is helpful to differentiate between actors working within different sets of constraints. In the first chapter, I discuss the roles played by the various actors in the international scene including the emergence of non-state actors and the significance of their interaction with each other for resolving environmental problems.

The environment in the Soviet Union was a victim to degradation long before the political institutions failed. International cooperation with Russia on environmental issues was seriously disrupted by the Soviet Union's

political and economic downfall. People are aware of radical changes taking place in Russia, but the significance of these changes for the environment has not yet been fully appreciated. Already suffering from catastrophic environmental degradation, the Soviet successor states find themselves in even more dire straits following the breakdown of the former system. In short, the second chapter reviews the economic and political underpinnings of environmental degradation in Russia and examines the current dilemmas for Russia regarding the environment itself and the state of environmental protection.

Given the magnitude of Russian environmental problems, in the third chapter, I examine the broader debate on assistance to Russia. Questions of environmental assistance and cooperation are competing for priority with the economic recessions in the West and with efforts to aid the transformation of Russia's economic and political system. International cooperation with Russia has increased recently, although some forms of cooperation have existed for many years. Scientific exchange with the Soviet Union continued despite the tensions of the Cold War. With perestroika and the warming of international relations, bilateral business relations have increased markedly. These business relations and the creation of a market system, some argue, should be the primary form of environmental assistance to Russia.

This chapter also focuses on Russian concerns about foreign involvement, particularly with regards to foreign investment. Are foreigners Russia's saviour or its colonizer? Environmental opposition to foreign investment in particular is intertwined with a number of non-environmental issues making it a social, economic, and political concern as well.

While the third chapter is concerned more with the general conditions for business and government initiatives, the fourth chapter in this study identifies the socio-political conditions within which independent environmental groups have grown in Russia in the past few decades. Although the concerns of indigenous peoples in the North are not solely centered on environmental issues, they play an important role in environmental initiatives. Because indigenous peoples are often affected by environmental initiatives and may have relevant information to offer, they are included in this study under the term independent groups. In this chapter, I discuss why independent groups are possibly the foundation for change and the linchpin for developments to improve the environment.

Having presented a background to environmental cooperation, in the fifth chapter I then turn to a more specific focus on Canadian/Russian cooperation. This study limits its scope to initiatives in two areas, namely cooperative business efforts to improve environmental conditions such as environmental consulting for joint

ventures and bilateral government initiatives between Canada and Russia to improve environmental conditions. In a separate section, the role of non-governmental groups in Canadian and Russian cooperative efforts is reviewed. Much of the information detailed in Chapter five and in various sections of other chapters was obtained through interviews with key representatives in government departments, businesses, and various other groups (see Appendix I). This chapter attempts to give an overview of what is currently occurring and the initiatives currently being proposed.

The final chapter presents an analysis of Canadian/Russian cooperation on the environment. Have Canadian efforts attempted to incorporate a diversity of interests? How are government representatives, business people, and other independent groups on both sides working together? Do governments and businesses in both countries seek to encourage the access of those who lack funding to the process? This section attempts to summarize the current state of environmental cooperation between Russia and Canada and examine the possible reasons behind current affairs.

The rapidly changing conditions in Russia have served to frustrate cooperative efforts but have also created unprecedented circumstances for change. Environmental issues provide a wide range of opportunities for international cooperation. There are benefits to be gained from exploring these opportunities to their fullest.

Chapter 1

IN WHOSE INTEREST?

This year the governments of the earth have convened for the largest international summit in earth history. At issue is the state of the world's environment and the need for cooperation among states to address environmental degradation. The search for solutions to what may be real or imagined impending disaster for life on earth continues to become more urgent as our knowledge of the consequences of environmental neglect deepens. The recent summit revealed that in the search for solutions, governments cannot act alone. They must work with one another as well as those outside government. In her closing remarks on the summit, Norwegian Prime Minister Gro Harlem Brundtland said:

The nation state alone is too small a scene for addressing regional and global challenges, and if national governments are basically unilateral in their attitudes towards global problems, anarchy will prevail over international governance and world order. (Rusk 1992, p. A10)

The recognition of the environment as an issue of international concern has been an explicit subject of international policy and law since 1972 when the United Nations Conference on the Human Environment took place in Stockholm. (Caldwell 1991, p. 5) Of greater interest to this study was the involvement of both business, and independent environmental and development groups in the summit preparations. Not far from the larger convention of

government officials, a smaller yet vocal gathering of non-governmental organizations was convened.

A growing worldwide non-governmental movement has formed in response to governments' notoriously slow and paltry attempts to address deteriorating environmental conditions. This movement represents a source of education for national governments and international institutions on how to tap the energy of citizens to create a sustainable global economy - an enormous task which will require the cooperation of local organizations and governmental bodies. (Durning 1989, p. 7) The major role independent groups played in preparing the earth summit testifies to the increasing significance of independent groups in international environmental initiatives. However, their distance from the actual summit demonstrates their continuing lack of authority in the decision-making process.

Agents who have the authority to improve environmental conditions may not do so, because they do not see it in their interest to include those who are disempowered or who, in other words, lack the authority to make decisions in the decision-making process. However, it may very well be in their interest because those who are disempowered due to a lack of information or access to funds and political representation may seek environmentally destructive ways to empower themselves. This includes women having babies

because this gives them status,³ men committing acts of terrorism, mass refugee movements to areas of greater wealth, or exploitation of what resources are most readily available. Though the empowered may be able to ignore the disempowered, they are not immune to the consequences of such a separation. Over-population, terrorism, and environmental degradation can affect everyone

Fear of political and economic instability resulting from environmental anger, of transboundary pollution, and of mass refugee movements are not the only reasons to support greater cooperation at all levels. There are also a number of reasons for cooperation on environmental protection besides fear. First, there are many opportunities to do a lot of good by doing just a little. In other words, environmental problems offer many opportunities even to less powerful participants to improve conditions without a major effort. Of course this is a positive way of looking at a problem that is so extensive, that one can easily feel overwhelmed. Second, cooperation on the environment does not have to be a politically loaded effort. Environmental issues go beyond political differences and are issues that can bind people together. Third, environmental protection cooperation helps support the production of environmental technology. Environmental technology, in particular, offers

³ See Betsy Hartmann (1987), who concludes that women turn to children as their primary source of power when there are no other options besides staying home or working for low wages.

an opportunity for technology transfer that does not pose security risks. Fourth, as foreign countries find it increasingly expensive to further improve their own pollution control mechanisms, there are many opportunities for significant improvements in Russia that may be less costly than investing resources domestically. (Schreiber 1991, pp. 369-371) In the current climate of support for cooperation with Russia, environmental issues can be a politically enhancing and rewarding area of action.

THE PARTICIPANTS

An image of society fragmented into totally separate identities such as government, transnational corporations, and non-governmental groups would be misconceived, since these groups overlap. A government official may have her own business or be a member of a local environmental group. Governments are also business owners themselves with a stake, for example, in making economic enterprises profitable. Individuals working in enterprises are also involved in independent groups. As one environmental ethicist explains it:

a fragmented perception of society produces a situation in which everyone is affected and nobody is in charge. The tendency to individualize and categorize members of society ignores the fact that the deterioration of the environment also affects the shareholders and the corporate management, who are likewise part of the general public. (Chawla 1991, p. 259)

Thus it is important to keep in mind, when making such distinctions, that everyone is in some way affected by environmental deterioration regardless of her position in

society. However, it is useful to differentiate between actions taken by groups of individuals working as salaried government workers, or by environmental or business interest groups, because often individuals within such groupings tend to act according to differing interests.

This paper focuses on the interaction between three general actors in Canada and Russia. The first and most vague are independent actors, which include indigenous people, non-profit organizations, academic institutes and programs, and citizen action groups. It is not in the scope of this paper to review the history of scientific exchange between research institutions and universities which has been taking place for some time with government support despite political tensions.⁴ This group involves the people outside of government and business who are affected by development or the people who have knowledge relevant to environmental initiatives. Secondly, there are business actors who are involved directly in joint ventures with Russia or contracted by those firms to assist with environmental consultation. The third area of participation are Canadian and Russian government actors and involved in bilateral technical and educational assistance on the environment. The term "government" in this paper is used broadly to represent government bureaucracy and not specifically top-level politicians.

⁴ For a review of the history of scientific exchange between Russia and Canada see Slipchenko, 1989.

The purpose of making distinctions between these three groups is to examine the different constraints within which each group works and to explain the different roles each plays in cooperation on environmental issues. One aim of this paper is to determine how these three groups are working together on environmental issues, to what extent, and for what reasons.

IN SEARCH OF SELF-HELP

Independent groups are often the channel by which citizens at the grassroot level may work to influence decisions affecting their well-being and to help improve their lives. One author defines the function of independent groups as facilitating "the flow of information, materials, and funds between grassroots and broader institutions such as church, state, and development donors." (Durning 1989, p. 9) In this context, I use the term "independent groups" to refer to the means by which the grassroots environmental movement is represented. It should be noted that while independent groups may claim to represent grassroot concerns, some groups may become removed from those they supposedly represent. Independent groups may be somewhat of a misnomer in that many of these groups do derive part of their funding from church, state, and development donors and are thus partially or wholly financially "dependent". In some instances in this study, such groups are also referred to as non-governmental organizations (NGOs).

Independent groups may be formal or informal and vary widely in size and purpose. In the context of international cooperation, large, well-established, and well-resourced groups are likely to be able to participate more effectively. As concern over the environment becomes increasingly wide-spread in society, the resources and influence of independent groups are likely to increase. Groups tend to specialize in certain areas and thus may organize an informal federation to strengthen their international clout. However, smaller groups can also participate more easily now with access to modern technology such as fax-machines and electronic mail.

There are a variety of roles played by independent groups in international environmental cooperation. They help inform the public and focus attention on environmental problems. Increasingly, independent groups contribute to the development of international environmental law and participate in the negotiation and drafting of international treaties and conventions on environmental matters.⁵ Such groups can also help insure that policy formation and implementation occur responsibly. Independent groups actively monitor and seek to enforce state compliance with environmental laws and standards. As one writer in *The Economist* explains,

⁵ Philippe Sands(1992, p. 28) demonstrates that increasingly, in fact, a few independent groups have "been able to influence the direction of policy and law-making by relying on the language and process of international law."

It is hard to imagine anti-nuclear campaigners playing a constructive role in disarmament talks, but green lobbyists are active participants in many environmental negotiations. As they are deft at mobilising popular protest, they also play a big part in encouraging governments to keep their promises. (The Economist, "The Environment Survey," May 1992, p. 7)

Detecting violations and assuring an adequate response from authorities may only be possible, in some instances, if independent groups actively pressure the authorities to change their priorities.⁶

One of the dangers to independent groups is the possibility of cooptation. When these groups remain truly independent of governments and businesses, they are much more free to oppose and criticise environmental offenders. Some groups choose not to cooperate with governments or businesses for the very reason that they want nothing to do with the "opposition." They may consider their own objectives to be the only solution and their methods the only means to a solution. Cooperation might entail compromising their ideals. Individuals who once worked for independent groups may find themselves working within the confines of the profit motive or trying to garner political votes and thus having to compromise environmental priorities. Furthermore, the image of autonomy that independent groups have may be compromised in the public's

⁶ Environmental whistleblowing is also in some cases enacted by concerned employees who come from within the violating organization. As Yeager points out, the personal and intimate nature of the threat posed by environmental crimes and the contradiction such crimes pose to fundamental human values makes it difficult for workers to ignore their firm's transgressions. (Yeager 1991, p. 331)

mind when these groups are seen negotiating side by side with industry and government.⁷

A combative approach may not prove particularly useful, however, in attaining objectives. Exclusionary tactics may serve to further estrange those who are a part of the problem. The perception of radical environmentalists by some is that their objectives serve a narrow range of interests and their actions are a source of political conflict. An example is this statement made in a report by multinational economic organizations concerning economic reform and independent groups in the USSR:

The emergence of radical environmental groups provides a further motive for paying more attention to environmental issues. Unless appropriate measures are taken, environmental opposition could become an important impediment to the reform process itself.⁸

This logic may seem twisted to environmental activists who see their actions as benefiting society at large.

Independent groups must find the balance between encouraging active change and discouraging dialogue to be effective.

THE ROLE OF GOVERNMENT

Although independent groups may be the most critical opponents of business and government actions or inactions concerning the environment, governments may also be an

⁷ This last statement is taken from an article claiming that the public tends "to support those who fight the system more than those who work within it." (Rusk 1992, p. A6)

⁸ The irony of this statement is that environmental groups in Russia have been a strong motivator for reform. The report does, however, come out in support of "providing meaningful opportunities for participation in the decision-making process" for the public. (The Soviet Economy p. 16.)

important source of support for environmental initiatives. In March 1991 the first non-governmental conference on the environment with USSR and US representatives was held in Moscow. This conference was funded in part by a \$25,000 grant from the United States government Environmental Protection Agency (EPA). An activist attending the conference speculated that the reason for such government support was that

In fact, this ambitious conference was more than government officials' gesture of recognition of the unavoidable role non-governmental organizations play in environmental reconstruction. The historic meeting in Moscow was the explicit recognition by two superpowers' superagencies that they must empower their most informed and dedicated critics. (Russell 1991, p. 19.)

However, there are other reasons why governments play the role of supporting independent activities. Aside from the obvious reason of concern for poor environmental conditions in Russia, the US government may consider independent groups to be a part of the democratic forces it wishes to support in Russia. In a country where independent groups have traditionally risked Soviet censorship, one representative of the EPA regarded the conference as conferring "a modicum of legitimacy" on Soviet environmental groups. (Russell 1991, p. 15) Government support may be given because of the political benefits derived from appearing to aid humanitarian causes. Considering the severity of environmental problems in Russia and other post-communist states, there is much opportunity for governments to give

support for humanitarian reasons without appearing to be politically controversial.

With the ability to organize projects, legislate action, and implement measures, governments play a crucial role in managing the environment internationally and within individual countries. One clear area of action is the role of consensus builder. Sometimes environmental objectives are not always clearly beneficial to everyone and require consideration of their social impact on all those concerned. Government agencies and representatives are often the ones who are faced with the task of getting everyone to agree. Independent groups may lose sight of the importance of the role governments play in trying to come up with a consensus. The difficulty of obtaining agreements also stems from the complexity of environmental issues. It is not clear to everyone what the costs and benefits are because of this complexity.

Governments are also involved in monitoring and assessing the impact of degradation and the impact of economic activities. They help provide the financial and technical assistance necessary for successful compliance of environmental agreements. Moreover, without the enforcement capabilities of governments, the effectiveness of environmental measures can be constrained.

Ideally, democratic governments also function as representatives of society and social concerns including environmental concerns. While this paper contends that non-

governmental groups are an important forum for grassroots concerns, truly democratic governments can also work to represent a broad-base of citizens despite limited access to top-level decision-making.

BUSINESS COOPERATION

Environmental issues are often seen in an adversarial light, pitting jobs against conservation, economic interests against environmental concerns, and people against people. Some suggest that framing the issue of environmental protection in terms of jobs is an attempt by special interests to manipulate public opinion.(Meyer 1992, p. D2) It is argued that economic prosperity does not have to be at the expense of clean air, drinkable water, and the preservation of nature.

Economic activities do have a place in our world, and the benefits of such activities for social welfare must be weighed with environmental objectives. As much as economic activities are a part of the problem, they are also part of the solution. Businesses, transnational corporations, and others involved in economic activities can play a very important role in addressing environmental degradation. Business can be involved in two main ways, either by producing an environmental protection product or service, or by producing products and developing resources in a manner with minimal environmental destruction. In the first area, they can provide low-waste and waste-free technologies, the equipment necessary for monitoring the environment and

assessing impacts on the environment, pollution control and abatement systems, recycling technology, the clean up and disposal of hazardous wastes, and closed production systems. In addition, they can help improve agricultural efficiency and ecological safety and help convert military enterprises to environmental technology production or less harmful production. The second area involves restructuring activities with the help of the first area. In transnational work with Russia, businesses may set up joint ventures, trade technology and expertise, provide training and management skills, and support financial restructuring.

Business ventures can help to empower the people who are affected by environmental ills and provide the means to change poor conditions. At times, it is expedient to involve independent groups in the process of development out concerns over opposition to environmentally harmful activities or over establishing an environmentally friendly image. As one Canadian enterprise proclaims in its brochures:

Industrial development can bring significant economic, social and environmental changes. The benefits of these changes can be maximized and the negative impacts minimized if local people are part of the project planning process from the beginning.⁹

Businesses support research on environmental concerns not only in response to regulatory pressures but also to avoid the costs of pollution for certain activities.

⁹ This quote is taken from a brochure for AGRA E & E International advertising its environmental and engineering service for the Commonwealth of Independent States.

Environmental degradation may pose an obvious cost factor such as the need to have a certain level of purity in water for production purposes. Research can provide the needed information to assess water content and maintain its purity. In the interest of making activities profitable, environmental assessments and technical research help to uncover potentially costly problems.

Although business interests can play a very positive role in preventing and ameliorating environmental problems, the particular dynamics influencing the behaviour of businesses work to the detriment of environmental conditions. In the introduction, one dynamic mentioned was the tendency to externalize environmental costs. The failure to properly identify and value environmental costs has often led to the neglect of these costs. Business behaviour today is also influenced by the conditions of increasing competition and slowed economic growth which drive enterprises to seek cost-cutting measures. These factors can influence the desire and ability of business to invest in environmental protection measures.

COLLECTIVE ACTION

There are, of course, many obstacles to cooperation with Russia for all participants. In many instances, cooperation may be viewed as too costly or too risky. Russia's current financial difficulties present an obvious obstacle to the ability of both sides to reciprocate equally. Distance and cultural differences magnify these

problems. Participants also are concerned with different issues, be it local rights, elections, or profit. This is not to say that individual initiatives toward protecting the environment are not possible or beneficial. However, when environmental problems are of global concern, they necessitate collective action.

Many support the creation of international regimes (Andersson 1991, Chayes 1991, Young 1990), more broadly referred to as international institutions, to resolve such concerns. Such institutions are as strong as their constituent parts and are plagued by a tendency towards burdensome bureaucracy. Thus they must be small enough that funds go beyond just supporting the framework toward making independent and creative actions possible. When the constituent parts believe there is more to be gained from acting together, then supra-national organizations can be effective.

Increasingly, the transboundary nature of pollution and the shared nature of biological resources are impressing upon countries the benefits of acting together. The main transboundary issues for Canadians include:

- the buildup of gaseous elements in the atmosphere that trap solar radiation and may lead to global warming;
- the depletion of the ozone layer by CFC's and other harmful substances;
- the acidification of lakes, rivers, and trees by rainborne sulfur dioxide and other substances;

- the contamination of water, soil and air by radioactive material, oil spills and other toxic pollution;

- the appearance of Arctic haze due to high levels of soot, hydrocarbons, and sulphates in the atmosphere;

- the overkill of resources, particularly marine life.

With environmental issues becoming not just future possibilities but more immediate realities, native peoples, government representatives, business people, and others are finding it is in their common interest to convene on these issues. Thus as one student of international environmental cooperation notes:

What is emerging, at least in this issue area, is a more complex international society in which states remain important actors, but find themselves increasingly sharing influence, if not authority, with several types of actors. (Young 1990, p. 344)

Countries are also increasingly signing agreements and passing legislation in an attempt to abate the damage to the fragile northern environment. Yet much of the effort has been made only in certain countries. There remains much to do on an international basis, and countries such as Russia have only begun to deal seriously with or even acknowledge environmental problems.

Chapter 2

RUSSIAN SOS

At the international meeting of representatives of parties and movements in Moscow in November 1987, Mikhail Gorbachev proclaimed, "Joint action alone can lessen and remove the global danger of ecological collapse." (Lemeshev, 1990, p. 315) After the collapse of the Soviet Union and the central government, Russian authorities renewed the call to the global community. Vladimir Kazakov, an expert on international affairs and external economic ties of the Russian Federation Supreme Soviet expressed concern that:

Central authorities are unable to control the processes which are taking place in the provinces, and only through public efforts and actions coordinated with the international community will it be possible to radically change the ecological situation in the country for the better. (Maslov 1992, p. 3)

The official recognition by top government representatives of the gravity of environmental problems and the urgency for international cooperation marks an about-face in Soviet and now Russian policy. While Soviet officials once proudly hailed their system as the vanguard of social welfare and rational environmental management, the collapse of the house of cards has proven otherwise. Former calls for international cooperation referred to relations with developing countries, but now the concern is for their own problems.

In this chapter, the systemic reasons for the current state of the Russian environmental situation are briefly

described and an overview is given of the grave environmental problems facing Russians. Environmental problems cross boundaries in some cases and are of obvious concern to other states. However, because some domestic problems may require assistance from abroad, these issues are also of concern to this paper. Due to the dramatic changes in Russia as a result of perestroika, including the dissolution of the Soviet Union and the transformation of the political-economic system, cooperation on any issue, including the environment, has become more acceptable though in some ways more difficult. Political and economic instability and the decentralization of power in Russia are having a tremendous effect on the state of environmental protection.

The words perestroika and glasnost are household words in the West these days. People aware of the meanings of the words (reconstruction and openness) often think of these terms in connection with the political and economic changes in the Soviet Union. They had very significant implications for the environment as well, however. Under Gorbachev, the nascent environmental movement found at last an opportunity to publicly expose the dangerous legacy of the Stalinist industrial drive and the closely guarded secrets of the all-too-powerful Communist party. Glasnost and perestroika have given citizens, from the grassroots up, an opportunity to more openly criticize their system.

Although Gorbachev's policies were intended to strengthen the Soviet Union, the end result of his time in office was to leave the country in disarray. In the long run, Gorbachev's initiatives to change the system may prove to have improved it. The systemic problems that contributed to environmental problems had reached a point where they could no longer be ignored. Although reform exposed deep-seated problems, acknowledgement had to occur if they were to be addressed. While systemic change further frustrated environmental management efforts, it also opens up opportunities for improvement.

OUR COMMON EXPERIENCE

Many analyses have examined the reasons for environmental problems in the Soviet Union. (Debardeleben 1985, Jancair 1987, Ziegler 1987) While studies emphasize the failings of the production-oriented central planning system, it is noteworthy that some of the reasons for environmental degradation in the Soviet Union are also present in market systems. Foreigners cannot point fingers at the failure of the Soviet system to properly manage the environment without acknowledging that we are far from solving environmental problems as well.

The narrow economic paradigm of market systems is predicated on the concept of "growth". The concept of growth might not entail such environmentally destructive consequences if it meant the development of the world's resources in an equitable and sustainable manner. As the

executive director of the International Chamber of Commerce Office on Environment, Jan Olaf Williams describes it:

"Environment is an asset. Sustainable development is about learning to develop and maintain this asset so we live off the income, not the capital." (Lamb 1992, p. 4)

Unfortunately, economic systems around the world, including the Soviet system, were and are based on the idea of ever-expanding production with limited concern for the underlying capital and long-term growth.

Furthermore, both systems have attempted to manage the environment in a regulatory approach commonly referred to as "command and control." Alfred Eberhardt of the United Nations Environment Program (UNEP) identified seven deficiencies that can be applied in some cases to environmental policy in both systems. These include the following:

- Economic development goals fail to take into account environmental considerations.

- Insufficient coordination and overlap exists in the work of government agencies dealing with the environment.

- Local and sectoral interests supersede environmental interests.

- Economic incentives are not sufficiently employed, and enterprises do not have to pay for the environmental damage they cause.

- Environmentally sound technological innovations are not integrated into industrial production and scientific and engineering research institutions do not satisfactorily advance progress for environmental protection.

- Implementation gaps exist, and there is a lack of discipline and commitment on the part of central government agencies and ministries.

-Violations of environmental legislation are inadequately prosecuted.(Eberhardt 1990 pp. 151-152)

He also identifies the insufficient attention given to environmental education by the media and schools as a problem that still exists in the West as well as the East

Another shared concept between West and East that has contributed to environmental destruction is that of "security". The traditional understanding of security "has been used in political and military relations to denote a state of affairs in which there is an absence of military threat for a nation or a group of states."(Vinogradov 1991, p. 165) A state was considered to be more secure if it increased its military power. Increasing military power seems to have scared one's neighbor into doing the same, the result of which is not a greater sense of security but an increased sense of fear on both sides. With ecological threats crossing borders, security must take on a new meaning.

The threat of nuclear war is widely understood as a ruinous possibility for the environment as well as humanity. In the mean time, however, military buildup was already causing great harm. The West, including Canada, and the East have been damaged by the veil of secrecy surrounding military activity. More will be said on the military related damage in Russia in the section on environmental degradation. Unfortunately despite the diminishing threat of nuclear war and the warming of relations between the US

and Russia, there still exists government censorship of information on military activities that affect the environment in the East and the West.

The commonality of such issues as environmental degradation from military activities, deficiencies of our regulatory structures, and the emphasis on economic growth at the expense of the environment are all reasons to support the idea that countries have something to learn from each other. Now that Russians are increasingly turning to the West for ways to improve their lives, it can also be worthwhile for other countries to recognize that Russia's problems are not entirely unique.

SYSTEMIC PROBLEMS

Having discussed the parallels with the West, it is nevertheless widely acknowledged that the Soviet system took a very different path toward environmental destruction. The rapid pace of industrial development made the former Soviet Union and East European countries among the most polluted places in the world. The extensive environmental damage resulted from a complex combination of factors including the environmental management deficiencies mentioned above and the following characteristics.¹⁰

The Soviet system of economic growth prioritized accelerated investment and accumulation over the needs of

¹⁰ For a more detailed account of the reasons for environmental mismanagement see Marat Khabibullov, "Crisis in Environmental Management of the Soviet Union," Environmental Management, Vol. 15, no. 6, 1991, pp. 749-763.

the consumer and the environment. The Stalinist central planning system had a number of environmentally deleterious characteristics. Production output emphasized quantity and considered the production of pollution control equipment an obstacle to increased output. Prices were set according to bureaucratic objectives and did not reflect the relative scarcity of materials or the costs of production.

Industrial development was based on extensive growth which favoured increased inputs of raw materials, energy, and labour rather than improving the efficient use of inputs.

Environmental conditions were also aggravated by an economic system which gave monopolistic control to production ministries and overriding control to central authorities with little recourse for competing concerns. In pursuit of departmental interests, production ministries have been able to demonstrate the lack of cost effectiveness of adopting pollution control measures. Thus although they were responsible for environmental protection, ministries could argue that production levels would suffer if funds were allocated to environmental protection goals instead. With a narrow approach to meeting their own production targets, ministries did not often cooperate to develop resources more efficiently. Ambitious central government control also meant that production occurred with little consideration to local health and environmental concerns. Production projects were poorly located, overly concentrated, and over-sized. Concerned mainly with

increasing output and bogged down in a bureaucratic quagmire, the central government and industry failed to invest in adequate R&D and in updating outdated technologies to improve efficiency. Without incentives to introduce environmental measures, the system wreaked havoc on the environment and eventually on people.

The Soviet central planning system that led to such destructive consequences should not be confused with centralized regulation. Central planning meant centralized and concentrated control to the exclusion of any independent oversight or political checks and balances on power. Whereas central planning is a system, centralized regulation is only a part of that system. There exists a misconception among many in the West that the dire environmental straits in former Communist states proves the ineffectiveness of centralized government regulatory structures.¹¹ Frank Popoff, president of Dow Chemical claims that "The solution to pollution must be based on market principles. The results of over-regulation and centralisation have been all too clearly demonstrated in eastern and central Europe." (Abrahams 1992, p. V) Russian environmental regulations and laws were and are extensive. However, to point to regulations as the problem would be an inadequate understanding of the roots of Russia's environmental

¹¹ Regulatory efforts do manifest bureaucratic inefficiencies similar to those in centrally-planned economies but to a much lesser extent. See Hubbell 1990, p. 10.

conditions. Rather than over-regulation, problems were due to the lack of implementation of regulations.

Furthermore, to proclaim market principles as the solution one must also remember that markets do not exist without governments. In a market system, governments set the rules for conduct and are very much a part of the market system. Regulation does not have to be a pejorative word if it works to ensure social welfare. More often than not over-regulation is not the problem even in so called advanced economies. Poorly informed regulatory measures and poorly implemented measures are more important problems, and they can do more harm than good.

Regulation is criticised in the West for two main reasons. One is that it may provide little environmental benefit and, secondly, that it may exact a heavy toll on the economy including heavy job losses. Some studies show that when regulations have "a noticeable impact, on balance the effect is bad, so that consumers obtain a worse product or a higher-priced product or both." (DiLorenzo 1991, p. 41) Part of the problem with this reasoning is the assumption that environmental improvement should be cost-free. Many assume that any action taken to improve the environment must have immediate tangible results and not result in higher prices for the consumer or the loss of jobs. In the long run, it is quite conceivable that change toward creating a safe environment will be arduous and costly.

Left to its own, the shortsighted market is unlikely to engender the necessary adjustments to address environmental problems. Markets do not internalise the environmental costs of production and extraction. Nor do they always take into account that the world is not a level playing field where some peoples' needs are not met and the resources that feed the world are not properly sustained. A profound change is required in the way economic activity currently works and in the application of market principles if the global community is to address environmental degradation. Governments have an important role to play in creating the sticks and carrots to encourage this change. Therefore, in examining the reasons for environmental mismanagement in the Soviet Union, it would be fallacy to conclude that the introduction of a market system without a well functioning regulatory system would be sufficient to ameliorate environmental damage.

In the Soviet Union, an important aspect missing in environmental management that has existed in market economies is the independence of various sectors. For years the Soviets were aware of the need to introduce more autonomy into the system to make it more efficient. Beginning with Khrushchev, Soviet regimes wavered between decentralizing control and maintaining the status quo as the inefficiency of the system became more apparent. However, when power is concentrated in one overriding interest, that of the Communist Party leadership, any other interests or

sources of independent power that are perceived as threatening may be censured or ignored. Market systems have allowed a greater dispersal of power and consequently a greater capacity for innovation, change, and independent environmental oversight.

Over-centralization does lie at the root of social and environmental problems when it refers to the concentration of power in monopolistic economic and bureaucratic structures. Without independent sources of information and assessment, there was no challenge to the power at the top. This is true to varying extents for the "East" and the "West" where both planned economies and capitalist economies may concentrate power and limit opportunities for oversight. Decentralizing power can then help to balance forces. According to one observer of such large centralized bodies such as the World Bank and the European Community, there must be support for strong local economies which allow "a more equitable distribution of wealth... and are more responsible to the needs of people and the limitations of natural resources." (Norberg-Hodge 1992, p. 8)

The tendency for centralized large bureaucratic structures to be far removed from those they supposedly represent and to be slow to act gives credence to the idea that governments must support the development of a more responsive civil society representing a plurality of interests. The transformation of Russia's economic system into one that allows more private initiative and that

empowers a greater number of individuals can help to address environmental problems. Private initiatives both in the form of non-profit organizations and businesses can act more quickly and creatively in a politically and economically unstable country.

However, it would be an over-generalization to assume that the devolution of political decision making power makes for more sensitive environmental management. Power devolution to local governments may not be environmentally beneficial when the environmental regulatory branches are unable to take independent action.¹² Much also depends on levels of ecological awareness and cultural factors that influence the values or preferences of local and regional actors. Some people will take the opportunity of decentralized power to further their own environmentally destructive objectives. In the haste and enthusiasm to transform Russia into a market economy, the important role of environmental protection structures and the negative environmental traits of such systems may be dismissed.

ENVIRONMENTAL CONDITIONS

To examine further the climate for international cooperation between Canada and Russia, it is helpful to understand the environmental conditions Russia currently

¹² The Russian environmental minister, Danilov-Danilyan, has been particularly critical of local governments' attitudes toward their natural resources and claims "they are squandering their resources and don't allocate money for their reproduction." (Interfax, "Swiss...", 1991) See also Nikitin 1991 for an interview with Danilov-Danilyan.

faces. Despite increasing severity, there remains a low level of awareness of Russian ecological issues both inside the country and abroad. Conditions are currently such that it is difficult to overstate the magnitude of the problem. Attempting to describe his concern, the Minister of Ecology and Natural Resources of the Russian Federation, Viktor Danilov-Danilyan commented that:

We are facing an ecological catastrophe. In fact it is only the vastness of the country which is staving off that catastrophe. Imagine the industrial discharge and exhaust of Russia on a smaller territory, say that of Japan. It would spell total ecological collapse immediately. (Nikishin 1992, p. 8)

While he admits that the number of cities with polluted air varies and depends on the criteria used, he estimates that 35 Russian cities have "absolutely impermissible amounts" of air pollution and another 65-110 have just "impermissible amounts". The majority of bodies of water are also polluted above permissible levels. (Frolov 1992, p. 6) Some 350 cities are said to have industrial wastes above acceptable norms. (Smirnov 1992, p.2) Even in the Moscow region, where one might think officials would be more concerned with environmental conditions, there are serious problems with air pollution, water pollution, a loss of arable soil, chemically contaminated soil, and a loss of forests due to human interference. (Frolov 1992, p. 6)

The human cost resulting from such high levels of pollution is correspondingly high. One Russian source claims over 20 million people are living in critical

conditions.(Vorfolomeev 1992, p. 5) The Minister of Ecology, Danilov-Danilyan puts the percentage of Russians living in "cities notorious for their polluted environment" at 60 percent of the country's population.(Nikishin 1992, p. 8) The figure of those affected is likely much higher, however, given the pervasiveness of problems and the Russian inability to measure their extent.

Now that Russia is attempting to lift the veil of secrecy over military activities and to address the build-up of a nuclear arsenal, some frightening problems have been exposed. In a disclosure of previously classified information, the Russian military's carelessness in addressing its nuclear hazards has come to light. The Arctic seas have become heavily polluted as a result of military activity. Nuclear testing on the island of Novaya Zemlya in the Arctic, improper dumping of nuclear waste in the Kara Sea and in rivers flowing into the Arctic, and the corrosion of the Komsomolets atomic submarine lying at the bottom of the Barents sea are some of the dangers threatening the environment.¹³

The dangers are not confined to the Arctic of course. In another disclosure recently, the former Soviet Union has been accused of dumping hazardous waste into the Baltic against international laws.(Ottawa Citizen, June 15, 1992)

¹³ In May of 1992, Norway and Russia announced a joint expedition to "conduct investigations in 14 maritime areas [including the Barents and Kara Seas] with the aim of determining where radioactive waste is buried and the degree of the ecological danger."(Loskutov 1992, p. 5)

It was acknowledged that Soviet troops dumped thousands of tonnes of deadly gases into the Baltic Sea after World War II. Damage by the military is extensive throughout the former Soviet Union. According to the head of the Russian Federation State Counselor for Ecological and Health Policy, Aleksey Yablokov, radioactive contamination has become the most dangerous kind of contaminant to people's health in Russia, but is still not so much a threat today as it will be in the future.(Yablokov 1992, p. 32)

Of great concern to the international community are Russia's nuclear power stations and nuclear waste from both energy production and military sources. In one particularly devastating case, two out of three reactors in a plutonium producing facility were taking in water from the Yenisey river (which flows into the Arctic) and releasing it directly back. Although the decision has been made to close the two reactors, studies show that the 30 or more years of concealed activity has left sections of the Yenisey with radiation contamination higher than Chernobyl's most dangerous areas.(Ibid) An estimated 270 million malfunctions in Russia's nuclear power stations were recorded in 1991 and according to the State Counselor for Ecological and Health policy, every nuclear power station has leakage problems. In some regions, 60 percent of electrical needs are met by nuclear power, making closure currently out of the question.(Stanglin, Pope 1992, p. 8)

Global concern has also focused on the Soviets' massive armaments buildup. Conversion of defense industries and the destruction of chemical, nuclear, and other weapons is not only a security threat but an environmental threat. The safe disposal of such weapons requires reliable monitoring systems to ensure that the air, water, and soil are protected from contamination. Conversion processes need to ensure that military production is not transformed to the production of other environmentally hazardous products. For example, one of the goals is to convert to the production of consumer goods such as air conditioners and refrigerators that use ozone depleting gases.

Ozone depletion is getting more attention in Russia these days. The problem, claims Yablokov, is that;

Over the past few years, until mid-1991, the amount of ozone in middle latitudes of the Northern Hemisphere diminished by three percent which, at my estimate, increased the incidence of cancer by 12,000 cases a year in the European part of the country; in 1991, the ozone layer dwindled another 40 percent.(Dubnov 1992, p.6)

Scientists at the Arkhangelsk oblast in Northern Russia point to the depletion of ozone together with radiation from nuclear testing and destructive emissions from industry as the culprit for the tripling of cancer and blood disease rates among children over the past three years.(*Radio Rossii*, 1992)

Although ozone depletion is a very real problem in Russia, opinion polls show people in the former USSR are most concerned by air and water pollution and radioactive

contamination. People are not as aware of international issues such as global warming and decreasing ozone protection.(Lubin 1991) Even in a recent article on ozone depletion in the major newspaper Izvestiya, only the Antarctica and industrialized Europe and North America are mentioned as risk areas.(Kovalev 1992, p. 6) Despite the increase of information under glasnost, education apparently remains an important need for preventing and addressing environmental degradation and its consequences.

AN INADEQUATE RESPONSE

As troubling as the above account may be, of even greater concern perhaps is Russia's inability to deal with these problems. Few things have been accomplished so far despite a plethora of decrees, laws, and multinational treaties. Of the 140 multilateral treaties on the environment, the Soviet Union signed 55 - all of which Russia has also accepted.¹⁴ As a result of such agreements, carbon dioxide emissions were reduced by 3 percent between 1985 and 1989 in the USSR. During the same time period, stationary industrial sources reduced their contribution to air pollution by 14 percent. To reduce ozone depleting agents, the Soviet Union replaced the production of aerosol CFCs with non-active propellants in three enterprises in 1988-89.(Nikitina 1991) However, this was accomplished under the Soviet regime. It remains to be seen what Russia

¹⁴ Deputy foreign minister, V.F. Petrovskiy, claims that the Soviet Union "complied in practice with 80 agreements that directly or indirectly affect our interests." (Shulyukin)

will be able to achieve. Yablokov reports that Russia has done nothing to comply with the Montreal Protocol on the reduction of ozone-destroying agents.(Dubnov 1992, p. 6)

The degree of environmental damage has resulted in a staggering bill. In 1990, Soviet scholars argued that annually environmental damage was costing the Soviet Union 130-140 billion rubles, somewhere around 15 to 17 percent of its GNP.(Porfiryev 1990, p. 23) The minister of the Environment in the Soviet Union, Nikolai Vorontsov, calculated in 1991 (at 1990 prices) that due to soil erosion, water pollution, and air pollution (contributing to forest losses and respiratory ailments among workers), the USSR would need to invest 340 - 380 billion rubles over the next 15 years.(Vorontsov 1991, p. 63) Russian estimates now say their country loses over 50 billion (in 1991 prices) rubles a year as a result of medical costs, illnesses incurred by industrial labour and the degradation of infrastructure and resources. To ameliorate the environment and prevent total degradation, Russia needs to invest approximately 100 billion rubles a year (in 1991 prices) into environmental protection. These ruble figures are much higher now due to rapid inflation.(Vorfolomeev 1992, p. 5)

By any accounts, the costs of pollution are an enormous burden on Russia's economy and society. There is much to gain economically by improving environmental conditions. Moreover, when environmental losses are calculated monetarily, they do not take into account the total impact

of environmental destruction. If lives and the biological diversity of the world could be given a monetary value, the figure would be much higher, of course.

Aside from the prohibitive costs, Russia's attempts to address environmental ills are bogged down with other difficulties. In an effort to make the military more accountable for radioactive wastes, Russia has set up the Russian Atomic Supervision Committee. Yablokov claims that although the USSR had established the Gosatomnadzor (Atomic Supervision Committee) as an oversight group, monitoring the activities of the Defense Ministry and the Navy was impossible. He believes that now the military is concerned about radioactive waste and that the Russian committee will be able to hold the military accountable. As proof, he cites the recent denial by the Committee to allow the Navy to bury liquid radioactive waste in the Kara Sea. (Dubnov 1992, p. 5)

The effort needed to clean up radioactive contamination from military activities has largely not been pursued, particularly since the military is concerned with other crises right now. The economic crisis has disrupted the fuel supply and the Navy cannot even take ships out to sea. Desertions, suicides, hazing (known as dedovshina), malnutrition, ethnic tensions, and other problems in the military make environmental problems appear less serious. However, the awareness within the international community of the dangers presented by military activities, particularly

those in international waters, may put more pressure on the Russian government to pursue active amelioration.

The systemic change in Russia may help to make military activities less of a threat to the environment because part of the problem was the overly centralized nature of the Soviet system. Unlike other systems, the government controlled not just the military but the socio-economic fabric of society and denied any independent source of power. Since the Communist Party supposedly represented society and its interests, there was no need to have independent groups to oversee the interests of those who might be adversely affected. Although military activities in other countries have also been granted secrecy and in some cases environmental threats are no less severe, more possibilities have existed for oversight through such means as the media, environmental groups, or the judicial system. However, the military threat to the environment undeniably continues to exist throughout the world.

There is a definite need for government protection agencies to have the resources and legal clout to implement regulations. In general, the management skills necessary for reorganizing the system and to develop needed environmental technology are lacking. (Schreiber 1991, p. 364) Russia's environmental monitoring and assessment capabilities are seriously lacking due to limited funding, infrastructural weakness and a low level of technological development. Although the old environmentally destructive

power structures are changing, new structures have yet to form and stabilize. Political and economic instability make the management of domestic policy and the climate for international cooperation enormously frustrating at times. In the past few years, there has been so much shuffling of department responsibilities that government workers have had their hands full just figuring out their functions. Consequently, environmental protection agencies in Russia find themselves in a seriously handicapped state to deal with the basic maintenance of environmental protection responsibilities.

One example of the unfortunate effects of transition on environmental protection in Russia and other former Soviet republics is the endangered state of zapovedniki or nature reserves. The government has protected these reserves by strictly limiting any kind of human activity, and some say they represent a natural resource just as important as the Brazilian rain forest. One of the successes under the Soviet Environmental Minister Vorontsov was the expansion of the network of reserves to 170. (Bohlen 1991, p. 3) This represented a 20 percent increase during the last two years to make a total of 26 million hectares under government protection. (Brandt 1992, p. 23) However, the Russian government cut funding for the first quarter of 1992 by 2 million rubles, a cut which effectively represented an 80 percent decrease from 1991 due to inflation. Moreover, decreasing support and the shift of management for the

reserves to regional governments and local populations has in some cases encouraged the use of these areas for economic and military purposes.¹⁵ Concerned about Russia's inability to prevent rapid destruction of the reserves, the Russian Socio-Ecological Union (SEU) has set up a campaign to solicit direct international assistance.(Zabelin 1992, p. 13) Russia is allowing some means of public oversight of these areas by a cooperative agreement between SEU and the Russian Ministry of Ecology and Natural Resources.

In response to the growing ecological crisis and the difficult economic transition, the Russian government passed an environmental protection law in 1992 to replace its last law formulated in 1960.¹⁶ The law and the appointment of Dr. Victor Danilov-Danilyan to the new Russian Ministry of Ecology and Natural Resources represent an effort by the Russians to take into consideration both ecological and economic interests. The mission of the new ministry combines environmental protection and monitoring objectives together with establishing committees on resource utilization and development.(Etkins 1992, p. 19) Although on the one hand it seems important to recognize that these are related functions, there may exist some difficulty in independently monitoring resource utilization if

15 Some of the recent encroachments in Russia include the use of the Azat Reserve in Tuva for cattle grazing and the construction of a helicopter landing pad in the immediate vicinity of the Central Chernozom zapovednik, a unique preserve of steppe ecosystems.(Chenodurov p.4, Zabelin p.13)

16 For an English translation of the law see FBIS-USR-92-049, April 28, 1992, pp. 13-34.

responsibility is under the same roof. The new law attempts to secure greater ecological concern in the economic activities of Russians with carrots such as credits, tax benefits, and financing for introducing clean technology. Negative influence in the form of payments for resource use, fines, legal liability, and taxes on ecologically harmful products is also used.

The law on environmental protection is praised as the base needed for greater accountability toward the environment. It supports "green business" and mandates ecological assessments prior to any development or construction. However, if it were faithfully implemented, an estimated 80 percent of firms would be forced to close, since they would not be able retrofit their capital stock or pay the required taxes, fines, and damage suits. (Stanglin, Pope 1992, p. 8) An article printed on June 5, 1992 in a Russian newspaper (Rossiiskaya Gazeta) claimed that in order for the law to work an entire packet of laws still needed to be drawn up.¹⁷ Neither do the resources exist to fund the enactment of this law by the Ministry of the Environment. The federal budget does not clearly identify from where the resources needed to fund the Ministry will come.¹⁸ As a

17 Changes and additions must still be made to the Criminal code, to the Code on administrative offenses, and to tax legislation. Moreover, the corresponding legislation for the practical application of the law has yet to be created. (Gusev 1992, p. 2)

18 In July 1992, the Russian government did adopt a resolution on "the establishment of a unified system of extrabudgetary state ecological funds, pooling federal and similar regional funds." (Rossiiskaya Gazeta, July 30, p. 1)

result, little has changed since its creation. Polluting enterprises are still subsidized by the government. Resource costs are still relatively low. Industrial activity goes on without prior assessment and firms continue to prefer paying fines rather than introducing new technology.

The pressure for industries to change still seems to initiate from social organizations. Often demands are for the stoppage or the restriction of environmentally harmful activities. As a consequence, consumers are deprived of the goods manufactured by these industries be it laundry detergent, medicines, or electricity, or may possibly lose their jobs. The choice often seems to be between a clean environment, or daily necessities and even livelihoods. More will be said on this topic later when the Russian environmental movement is discussed.

An inadequate response must be understood in light of the conditions Russians have been living in. In difficult financial conditions, people will endure, and adjust to, a very destructive environment. People also have a tendency to resist radical changes even if they may be for the better in the long term. Sometimes people are not fully informed of the risk posed by environmental degradation and thus do not see cause for concern about their environmental conditions. Noticeable effects on people's health sometimes take years to show. However, in Russia environmental degradation is having a very clear effect on the population

despite the lack of accurate information. Without improved environmental conditions, social and economic well-being cannot be sustained. (Feshbach 1992, p. 254) It is becoming increasingly clear to Russians and the world community that environmental protection must become a much greater priority if quality of life is to improve.

In conclusion, this chapter reveals that cooperative efforts may be constrained by the enormity and complexity of Russia's environmental problems and the country's inability to respond adequately to these problems given its economic-political system and prevailing attitudes. The extent of degradation represents a high price tag for those foreign agents who would attempt to assist Russia. However, other factors work to balance out such concerns and may motivate foreigners to consider cooperation regardless. The commonality of problems may offer opportunities to learn from each other. The common risk posed by pollution or environmental accidents can also motivate foreign concern. Finally, the "high price tag" may be used to offset less effective and more costly pollution control in one's home country or may be lessened by just small scale ameliorative and preventive efforts that can also be valuable.

Chapter 3

A QUESTION OF AID

In the previous chapter, the argument was made that environmental degradation has a very tangible economic cost. Although often the question of aid to Russia centers around economic and military concerns, it is important not to forget the costs of environmental degradation to societal economic welfare and security. This point was well articulated by Barber Conable, president of the World Bank in 1990, in a speech in Warsaw. His words encourage donor and potential donor countries to examine their policies of assistance not just to Poland, but other countries such as Russia.

Economic progress is a Pyrrhic victory for those who cannot breathe, or drink the water, or avoid toxic assaults on their physical well-being. Action on the environmental front cannot be postponed to some future date when the economic crisis has been overcome.... [It] must be part and parcel of the process of reform. Economic incentives, new investment, legislation, enforcement and public education must combine to pull Poland and other countries back from the brink of environmental disaster. (Feshbach 1992, p. 254)

As foreign countries ponder their assistance priorities to other countries and to Russia, it would be folly to dismiss the importance of environmental cooperation with a country as large and as heavily polluted as Russia.

This chapter examines the general conditions within which cooperative efforts with Russia in all areas must act. The focus is primarily on the constraints confronted by government and business participants and not just in terms

of environmental assistance. The following chapter gives more attention to the conditions specific to independent actors. Much of the assistance to Russia from Canada is given in terms of support for economic reform. Thus it is helpful to understand some of the ways in which economic reforms may also lend a hand to resolving environmental ills. This chapter argues that although support for economic reforms can be environmentally beneficial, privatization and marketization alone will not be sufficient to ameliorate the environmental damage in Russia.

CANADIAN CAUTION

Canadian efforts are criticized for being too slow, lacking integration, and for reflecting a reactive and short-term strategy. There are, however, some valid reasons for such a response to Russia's dilemmas. Mainly, the conditions for cooperation have been plagued by the uncertainty resulting from rapid change and chaos. The dissolution of the Soviet Union greatly affected the viability of cooperative initiatives. Uncertainty creates difficulties for all participants in international cooperation. As much as government representatives want to assure international cooperation participants of a predictable political climate, words are not enough to prevent unpredictable events from arising.

In general, what concerns do participants in cooperative efforts between Russia and Canada have to confront? Much of the hesitation from Canadian actors

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In general, what concerns do participants in cooperative efforts between Russia and Canada have to confront? Much of the hesitation from Canadian actors

relates to the economic and political instabilities in Russia. All participants must find the officials who will legally authorize their involvement and contacts who have enough organization and support to sustain interaction

Economic and political instabilities have meant that:

- individuals with authority are replaced or their positions eliminated;
- in the government, levels of authority change and are unclear;
- enterprises, departments, agencies, and organizations may be abolished or disappear due to a lack of funds;
- communication and exchange of information is hampered by a lack of funds, equipment, and organization;
- new laws are rapidly formulated, unclear, unenforced, and sometimes of temporary importance;
- with financial conditions strained and people's lives full of daily obstacles to meeting their needs, possibilities for riots and armed conflict exist.

Such problems are likely to affect any cooperative effort.

Foreign Investment

Foreign investors in general must contend with numerous obstacles because of the underdeveloped infrastructure for economic activity in Russia. Economic interaction is plagued by inadequate or complicated legislation, poor communication networks, inadequate management skills, unreliable supply and transportation systems, and unstable financial conditions. Many parts of Russia are ill-prepared to absorb much investment due to the lack of necessary infrastructure. Russian attitudes toward foreign investment can also prove to frustrate efforts. For example, fear of

exploitation may lead to strict controls on economic activities. Russian officials at various government levels are also interested in obtaining as much authority as possible in society where the division of powers is not clear. This works to the detriment of foreign investors who must negotiate with all levels of government and confront the power play between officials. Finally, foreign investors take the risk that their investments may take years to turn a profit and that interethnic disputes and fighting will disrupt activities.

Another risk that has been relatively overlooked is the ecological risk for foreign investment. In May of 1992, the World Bank, the new EBRD, and the OECD sponsored a major conference on the environmental liability of firms in the process of privatization. As foreigners start to invest in Eastern Europe's more advanced privatization process, they are finding that they may be held responsible for the past environmental destruction of the enterprises they take over or with which they work. These countries find it expensive to insure foreign partners against political risks and impossible to afford environmental insurance. In the absence of laws to protect investors from retroactive laws, enterprises are conducting environmental studies prior to purchase and are demanding reduced purchase prices for necessary clean up. (Simons 1992, p. A12)

Legislation in Russia on business environmental obligations can create difficulties even for joint ventures

that are environmentally sensitive. The new Russian Federation legislation on the environment makes no specific mention of the liability of foreigners for past transgressions by Russian enterprises. It does lay out the "environmental requirements for the siting, planning, construction, rebuilding or startup of enterprises, installations and other facilities," and Article 94 states that foreign corporate bodies and foreign citizens are liable for violations of federal and republic legislation. (Rossiiskaya Gazeta March 1992 p. 6) Part of the problem for foreign interests is the difficulty of obtaining information on laws specific to certain regions. This is due to the rapidity with which laws have been changing and the lack of accessible information on what has been passed. Tough legislation on pollution may particularly be a problem for foreign investors who are seen as more capable of paying fines and are thus a more lucrative target for government prosecutors.

Government Concerns

Government representatives too must deal with particular risks as a result of Russian and formerly Soviet instability, though not to the extent that business participants do. The dissolution of the Soviet Union meant that everything the Canadian government had negotiated was being called into question. Russia has taken on former Soviet agreements but the changes have, nonetheless, affected Canada's dealings with Russia's government. In the

area of the environment, changes were made to the structure of environmental management in Russia and different people took on new positions within environmental management bodies. There continue to be possibilities for changes in personnel that may affect cooperation.

One of the major issues of concern for Canada in all areas of assistance is the uncertainty about whether aid will effectively achieve the objectives for which it is intended. In a country where, traditionally, systems of distribution work most effectively under the table, foreign donors are cautious of government officials using aid to their own benefit. A temptation exists for Russian officials to use their foreign contacts to improve their own situation. It can perhaps be mitigated if contact is actually made with those who most need or can use the assistance and are thus most likely to ensure the completion of intended projects. The dominance of Russian government officials in economic activities continues to be a fact that must be considered in government related projects.

Canadians are justly concerned that cooperation be effective and that efforts not be wasted. In recessionary conditions, Canadians may perceive that money and time would be spent more effectively at home than elsewhere. Furthermore, there remains a question as to the fairness of their country taking on responsibility for problems they did not cause. The principle of the polluter pays will not be very effective, however, if the polluter is bankrupt. It

appears, nonetheless, that questions remain not so much as to the validity of cooperation but on the size and form it is to take.

ECO-NOMIC REFORM?

A large part of the debate in the West on environmental assistance to former Communist states is centered on the economic reform processes of privatization and marketization. There are those who reason that environmental problems can be dealt with most effectively with less government and more free enterprise. Particularly because so much environmental harm has resulted from an inefficient and wasteful economic system, the transition to a capitalist system is considered to be one of the best remedies to environmental ills. Moreover, government assistance may end up subsidizing foreign firms capable of producing the necessary pollution abatement technology and thus undermining the ability of still weak environmental technology production in Russia and unsubsidized foreign firms to compete. Some argue that "Only the adoption of accurate prices and privatization will provide the incentive to seek out efficient and environmentally-sound alternatives to the primitive, dirty technologies now in use." (Sheehan 1992, p. 186)

Fixed government pricing in the Soviet economic system tended to undervalue resources.¹⁹ Arguments favouring more

¹⁹ Theoretically price formation was supposed to reflect the cost of production. However, the Marxian labour theory of value, which influenced decision-making, attaches no value

accurate pricing say that such a step would raise prices and give an economic incentive to conserve resources.

Economists at the World Bank estimated that if fossil fuel prices were allowed to rise to world market levels in Russia and other former Soviet countries, carbon emissions would decline by about six percent around the world. (Nasar 1992, p. D2) In the West, pricing mechanisms are, in general, the focus of economic solutions to environmental problems. Economists argue that private allocation decisions must reflect the true social cost of economic activities. (Leith 1992, p. 12) In other words, it is necessary somehow to internalize the social or environmental costs of economic activities.

Although higher prices do increase the incentive to conserve, the situation in Russia is not that simple. As Amory Lovins, director of an environmental research organization observed, "Freeing energy prices doesn't promptly produce energy savings because the infrastructure and technology aren't there." (Nasar 1992, p. D2) Conservation requires the technology and infrastructure for more efficient consumption. There is also a strong disincentive for Russians to raise energy prices to market levels now because government officials claim domestic consumers would be unable to afford the increase and political chaos could ensue. In the long term, however, to resources until they are the product of human labour. See Debardeleben 1985, p. 241 for more on the environmental effects of the Soviet natural resource pricing system.

higher energy prices are sure to influence conservation efforts in Russia by reducing consumption.

Unfortunately, Russia's energy policy continues to emphasize increasing the rate of production instead of more efficient consumption. (Yablokov 1992, p. 33) Lowering internal demand for energy would be a more effective means of attaining environmental benefits than concentrating on reducing the rate of production. In addition, reduced demand would benefit the Russian economy by freeing up more energy resources for export earnings. In an effort to provide an alternative to nuclear power generation, the international Greenpeace organization has put forth a plan that would reduce internal demand by ten percent in the next five years and would introduce energy-saving technologies that could save 35-40 percent of energy consumption in 10-15 years. The Vice-chairman of the Supreme Soviet Committee for Industry and Power Engineering responded that the plan was "feasible both technically and economically." (Nikishin 1992, p. 11) Critics say, however, that it will be very difficult to get people to change their habits and that financial support is a problem because "there are no real joint programmes with the West in that direction." (Ibid)

Curiously, reduced demand may come about as matter of economic necessity rather than as a result of an environmentalist perspective to conserve resources and do more with less. For the twelve months following October 1, 1992, the Russian government has drafted a contingency plan

to reduce electric power demand by as much as 25 percent. The motivation appears to come from concerns about a shortfall in energy production and cutbacks in nuclear power. (Boulton 1992, p. 2)

Another point argued is that privatization reform must be a key factor in environmental assistance to Russia. Although theoretically everyone owned everything in the Soviet Union, private ownership was strictly limited. Supporters of privatization argue that it creates a capital market in which people have an economic interest or are under competitive pressures to maintain and increase the value of their resources. In addition, one Western critique holds that private property and free enterprise must "flourish in order to produce the wealth required to pay for the environmental cleanup." (DiLorenzo 1991, p. 41) However, individuals and groups of individuals owning resources does not always imply non-destructive stewardship. There may be an incentive to dispose quickly of resources and pollute in the process as there is in market systems. Proprietors may also have little awareness of ecological systems and the possibly destructive effects of pollution. Furthermore, private property rights must be accompanied by effective liability laws to hold people responsible for their actions. Judicial reform has yet to make current Russian liability laws effective.

Criticism of government involvement in environmental assistance to Russia also extends to foreign support for

independent groups. Initiatives to strengthen regional independent environmental organizations, will strengthen opposition to economic reforms, it is claimed. A researcher at The Competitive Enterprise Institute in Washington D.C. writes, "Privatization and marketization of the economies will be enormously more difficult when NGOs and environmental ministries are given excessive power to pursue their parochial interests." There seems to be a fear that initiatives supporting the development of independent environmental groups will end up training independent groups "to support and provide justification" for a large permanent government bureaucracy. As a result, more bureaucracy will undermine economic reform. (Sheehan 1992, p. 161)

This author misses the point that economic interests do not necessarily have concern for the environment as their upper-most priority. Business innovation and private ownership can help to ameliorate environmental damage and lessen destruction but rarely do so without some external prodding or a strong profit motive. Furthermore, to define the interests of NGOs and environmental ministries as "parochial" is in itself a very narrow viewpoint. Rather it may be the function of such "competing" interests to cooperate with business to make privatization and marketization a more environmentally concerned process.

It would be a mistake to conclude that government does not have a regulatory role to play or cannot give effective assistance. Governments help to discourage individuals from

being involved in environmentally destructive activities and promote more sound and conservative activities. Even the application of economic incentives for businesses to produce less waste and become more efficient requires government interaction with business. Government support of technology transfer does not necessarily entail that Russian industry will then be dependent on foreign firms. In the context of a very underdeveloped Russian environmental protection industry and very severe pollution problems in some cases, it would be much more harmful to not have any outside intervention.

RUSSIAN RETICENCE

Given the concern by Canadian participants about international cooperation, it should not come as a surprise that Russian people, too, question assistance, particularly in the form of joint ventures.²⁰ There is definitely some support for international cooperation as this statement made by a Soviet deputy minister in the Ministry of Foreign Affairs demonstrates:

International efforts are needed. They allow us to receive not only qualified evaluations and knowledge, but make the latest technology accessible as well. This is the basis for success in the battle to heal the environment. (Shulyukin 1991, p. 4)

This statement is vague on exactly what international efforts are needed. Most likely, official support is

²⁰ The questioning of interdependence with foreigners has long been an historical debate over the importance of the traditional Russian way of doing things and the disadvantages of isolationism. (See Goldman 1980, p. 166)

extended to efforts that are in some way beneficial to Russians without being exploitative. One Soviet poll does suggest the likelihood of support for foreign technical assistance to improve environmental conditions. The poll found that more than half of Soviets supported the "introduction of technological schemes with no waste products or small amounts" and also the "construction and improvement of the operation of purification structures." (Dumnov 1991, p. 10) Particularly in instances where foreign participation and technology is perceived as more environmentally friendly than Russian counterparts or as providing other social benefits, there may be more support.²¹

However, Russian support for improved technological development to deal with environmental threats does not necessarily coincide with support for a capitalist system. Some Americans interviewing Russian church members noted that they seemed to share the American worship of technological solutions but on the issue of privatization of land, a number of respondents felt that "land belongs not to the individual but to the community." (Hope, Young 1992, p. 226) There is a long tradition of community ownership that may be an obstacle to privatization but may not necessarily entail ecological irresponsibility. Particularly in more

21 In an interview with Marat Khabibulov, the Russian representative for a Canadian environmental impact assessment firm, this has been the case with some oil and gas joint ventures in Russia.

traditional non-urban areas, the Russian value of community responsibility for the environment can be a stronger ethical concept than the individual-centeredness of Western systems.

Some people do continue to regard foreign firms and the market system with suspicion, particularly since Soviet ideology created an image of evil capitalists out to exploit other states for peanuts; and they are wary of their own country's desperation for assistance. A military-political researcher at the Institute of the World Economy and International Relations wrote an article in the conservative paper Literaturnaya Rossiya warning of the dangers of foreign investment. He argues that the USSR needs to "count solely and exclusively on our own forces," and avoid becoming dependent on the capitalist countries as a result of inexperience with market conditions. (Gudkov 1991, p. 5) The West, he claims, will create structures that favour its own expansion and offer only the crumbs to the Soviets.

Russian concerns about foreign economic involvement in their country have been justified by past joint ventures that resulted in environmentally harmful activities. (Rasputin 1989, p. 9) Concern exists that foreign firms will carry on illegal environmental activities such as burying toxic waste or dumping pollutants. The dire need for hard currency profits is also likely to encourage officials to look the other way as long as they might benefit in some way. Particularly under Soviet rule where negotiations were made by top level officials, little

concern was taken for the local effects of economic activity.²²

Three trends have helped to improve the concern of joint ventures for environmental protection. First, joint ventures are finding it profitable to recycle and reduce waste. The very wasteful Soviet industry did not take advantage of secondary products that are valuable on world markets. Second, a more organized and wary public combined with the devolution of power to regional and local levels has meant more opposition to economic activities that endanger local living conditions. Thus foreign investors have, in many cases, attempted to anticipate local environmental opposition in their development strategies. Third, foreign investors sometimes realize that taking advantage of more permissive environmental conditions does not provide a comparative advantage. Sooner or later they may be held liable for damage, and it is cheaper to start off with entirely new state of the art technology rather than retrofit out-of-date plants. (Dodwell 1992, p. V) These trends may help to ensure that increased Russian economic interdependence will not inevitably lead to exploitation of Russian natural wealth.

22 For examples of opposition to top level decisions on foreign economic participation, see Rasputin 1989 and Gurtovoi 1991.

Criticism and skepticism of foreign investment continues in Russia today.²³ However, this does not necessarily translate into opposition toward economic environmental assistance efforts in the form of pollution abatement and low-waste technology transfer. Perceptions are likely to be more favourable toward this area of foreign economic assistance. Consequently, such efforts can more readily promote good will between Russians and foreigners.

ASSISTANCE PRIORITIES

Foreign assessments of post-communist environmental problems view economic restructuring as fundamental to improving environmental conditions. A Swedish expert on the environment, Stephan Hedlund, believes that many environmental problems could be addressed with modern skills and technology if Russia could afford it. (Lammi 1991, p. 60) Another observer of post-communist environmental problems notes that the extent of environmental problems is so great that even substantial foreign assistance is necessary merely to take

the preliminary steps of accurately defining the problem and putting in place the technical capability needed to address it. Thus, the issue is not merely that of tackling the pollution caused by existing economic activity - a reactive policy for which the existing domestic and foreign resources are simply inadequate. Rather, the task is to restructure the country's economy and reorient it to respect the environment and generate the resources for cleaning it up. (Kabala 1992, p. 58)

²³ For example, Russians fear that large oil development projects such as one negotiated by Chevron "will ruin the ecology of all of Southern Russia." (Ryzhikov 1992, p. 3)

he costs of efficient economic and environmental assistance to Russia tend to be underestimated domestically and abroad. The magnitude of problems that Germany is encountering on a smaller scale demonstrates the difficulties of ameliorating environmental conditions. Efforts to "clean up" the former East Germany alone are estimated to cost \$249-308 billion over the next 10 years. The corresponding costs for Russia will be much higher.

Economic aid is not the only issue. For economic assistance to work, there must be a capability (i.e. infrastructure and skills) to absorb foreign funds and a level of ecological awareness sufficient to support assistance. For example, Hungarian and Czechoslovak authorities and enterprises were unable to make use of \$50 million in funds provided by Scandinavian banks due to there inability to design and implement ecological projects (Wolfson 1991, p. 22). Implementation of assistance projects is impeded by the lack of organization and knowledge on how to implement projects. To address environmental concerns, technical solutions will also not be adequate if there is a lack of ecological education on the part of Russian industrial participants. Providing them with funds or technology can be a waste of time if the Russians are uneducated about the need for ecological safety.

In conclusion on the topic of assistance, it should be clear that the reform process needs to take into consideration a complexity of concerns, both Canadian and

Russian. Foreign investors may be concerned about the difficulties posed by inadequate economic and legislative infrastructure, environmental obligations, and local opposition. However, it is hoped that foreign investment will not only provide support for the transition to a market economy but will also provide assistance to improve environmental conditions in Russia. Enforcement of tough environmental obligations and local opposition may play an important role in ensuring foreign investment does not take on an exploitative character.

A capitalist market with more private ownership can improve environmental stewardship and a more efficient pricing system can help conserve energy. However, economic reform should not be viewed in isolation from the development of environmental protection legislation, independent institutions, and monitoring and enforcement agencies; a system of ecological education; and more developed democratic control including mechanisms for knowledgeable citizen participation. With very serious environmental problems in Russia, there is a need for environmental concerns to be an integral part of government technical and educational assistance efforts as well as economic joint ventures.

As Canadians examine their priorities on how to assist Russia, environmental issues should be an important part of bilateral cooperation at all levels. Although much of the Canadian government's and businesses' priorities are geared

foremost toward economic reform, environmental assistance is in the interest of Canadians and can be a part of an economic reform package. In the following section, I discuss further how independent actors can also be an important part of cooperative efforts.

Chapter 4

ECOLOGY FOR THE MASSES

In the previous chapter, the risks and difficulties of cooperation were identified, particularly in relation to government initiatives and joint ventures. In addition, some attention was given to the environmental protection considerations involved in the economic reform process. This chapter examines more closely the developing field of international cooperation between Canadian and Russian independent actors. This study acknowledges that there are those who perceive independent environmental groups as a possible threat to economic reform efforts.²⁴ There are those, however, who take the position that these groups can be a very significant part of reforms in Russia, particularly in their role of improving environmental conditions. The following two observers of international cooperation on environmental issues support this position.

The history of environmental policy in the West shows the importance of NGOs. They have often been the linchpin for important developments towards better environmental quality, and they have played an even bigger role in the East. It is therefore, important for Western countries to help these groups in the East. (Schreiber 1991, p. 377)

The history of cooperative non-governmental efforts, although strictly limited and often threatened by the state as they have been, provides a foundation for the massive social change currently under way [in Russia] and a training ground for developing needed skills. (Judy 1991, p. 11)

24 See Sheehan p. 161 and OECD's report on The Soviet Economy p. 18 for examples of this perspective.

Why are independent groups the foundation for change and the linchpin for developments? To address this question, it is important to understand the context, in Russia specifically, for independent groups and for cooperation.

THE RISING RUSSIAN MOVEMENT

With few opportunities for citizen participation and few legal mechanisms provided for citizen participation in environmental decision-making in the past, the recent political changes under Gorbachev have marked a significant turning point for citizen participation. Before Gorbachev permitted 'glasnost', large groups had to be officially sanctioned. As the system started to degenerate and environmental problems became more obvious, people found environmental issues to be an area where they could express concern or even criticism without being censored. The Soviet government allowed limited expression on the grounds that it coincided with Soviet concern for social welfare and was not founded in criticism of the system (read: the Party) itself. Formal, officially sanctioned organizations were allowed but were typical Soviet administrative structures. (Zaharchenko 1990, pp. 459-460) Gorbachev's policies opened up the arena for public debate and allowed even greater public expression in the form of petitions, letter writing campaigns, demonstrations and meetings, and media accounts. Greater political openness allowed informal independent groups to be accepted without the

formal sanctions required of previous groups and forms of expression.

Under Soviet rule, environmental issues took on a very political character. Two events in particular helped to shape the new environmental movement under Gorbachev. The nuclear accident at Chernobyl in 1986 demonstrated the government's incompetence and fallibility and the seriousness of environmental threats.

The other event, or perhaps phenomenon, was the connection of environmental concerns to nationalist movements and the struggle for greater autonomy. Environmental degradation was easily attributed to the actions of a careless and corrupt overlord. The perception was that officials were far removed from the consequences of their decisions and only interested in their self-empowerment. Along republican, provincial, local, and ethnic lines, some people sought greater autonomy from centralized control with the intent of addressing a broad range of grievances. Environmental issues, in particular, provided a cause for people to rally around and a symbol of the consequences of Soviet domination.

In the case of the Soviet Union, where environmental and health issues were severely neglected by the production and military oriented economic planners, local political organizations often found it in their interest to oppose environmentally harmful central directives. Moreover, as one environmental affairs analyst observes, "growing local

political organizations may pressure national authorities toward greater cooperation in international environmental affairs as a means toward achieving their local objectives."(Caldwell 1991, p. 3) Local groups were able to strengthen their position on the environment vis-a-vis the central government by appealing to international environmental obligations.

Under Gorbachev's rule, what little routinized or legalized mechanisms existed for a citizen relationship with decisionmakers, whether in industry or government, were largely ineffective. Exerting direct social or political pressure, when it was possible, remained the only means to achieve a response. To their credit, independent groups have in some cases been successful at getting decisionmakers to respond with what are costly solutions to environmental problems such as the postponement or cancellation of environmentally harmful projects and economic activities. It is also true that government cancellation of some activities was based on a growing financial crisis and, consequently, inadequate means to finance projects.

In a relatively recent development, it appears that now government officials are officially sanctioning the role of watchdog for some independent environmental groups. The Soviet Ministry of Justice approved a charter on April 22, 1991 which permits the Socio-Ecological Union (SEU) "the right to exercise public control over the observance of legislation regarding the use of natural resources and the

preservation of natural and cultural values." (ISAR information sheet, April 16, 1992) The SEU is a large umbrella organization with connections to some 150 environmental groups in Russia and other Soviet-successor states. Thus the charter represents a significant step toward recognizing the important role played by a large number of groups. The SEU was granted the same legal rights as a political party and the privilege of being able to work with and receive support from foreign groups. The charter of legal rights given to the SEU was similarly approved by the Russian Ministry of Justice in January 1992. (Ibid.)

The SEU is currently one of the few independent environmental groups capable of much action in Russia given that it is one of the more established and well-resourced groups in Russia. There may be other independent groups granted similar status, although at this time it is unknown. It is not clear why SEU was granted these rights or what the charter means in practice. It seems unlikely that official recognition has led to government cooptation of SEU, since SEU continues to rely on non-governmental sources for its funding. In the fifth chapter, I will examine one of the areas in which SEU is engaged as a source of environmental oversight in cooperation with a Canadian enterprise.

Another event affecting Russian groups is the recent approval of the Russian Law on Environmental Protection. The law goes much further than any legislation in terms of allowing citizens to participate legally in environmental

protection problems. Citizens' rights to participation in environmental protection include the rights to demand reliable and complete information" and "to raise the question of prosecution of guilty officials and private citizens and file suit seeking compensation for damages caused to citizens' health or property by environmental lawbreaking." Independent organizations or public environmental associations, as they are called, are allowed to do the same. Furthermore, organizations may "recommend their own representatives for participation in state environmental assessments," "carry out public environmental assessments," and "demand the repeal on an administrative basis or by court order" decisions on environmentally harmful activities. (Rossiiskaya Gazeta 1992, p. 3)

The law points the way toward improved mechanisms for independent action. However, actually getting those independent public assessments (including scientific analysis) considered by the government will require the approval of the assigned government assessment officials. Only if the data is accepted and the government is willing to use the data will independent assessment activities be used. Another criticism is the omission of a right to sue for damage to protected lands and animals. (Mischenko, Razbash 1992, p. 18) Moreover, the law does not provide a mechanism for citizens without substantial financial support to file suits. Without the necessary judicial reforms to enact the measures, the application of the law remains to be

seen. The law does imply greater acceptance of citizen action to enforce environmental legislation. Given the legal support for Russian independent action, the law may also spell greater support for international independent cooperation.

In the period under Gorbachev and currently under Yeltsin, environmental groups have taken on a great diversity in terms of goals, structure, tactics, and methods. Most formed around single-issue concerns over local problems as they do around the globe. Such groups include Save the Volga [river] Committee which is working to restore the river's fisheries, and Yamal Potemkin which is trying to control environmentally harmful development on the Yamal peninsula. Several groups are large enough to stretch across borders and seek to develop ecological funds to help resolve problems. The SEU was mentioned as one example previously. In the Soviet Union, the Association for the Support of Ecological Initiatives was established to provide greater material and moral support for local, regional, and international environmental problems. (Environment 1989, p. 21) The Ecological Foundation was a transborder fund set up to help clean up the environment and support alternative energy sources and is now called the Ecological Fund of Russia.²⁵ Another new public organization, called the Fund

²⁵ According to the chairman of the fund, Prof. V.F. Protacov, the fund has taken on the government function of allocating budgetary monies to those most in need. (Chernega 1992, p. 6.)

for the Safe Development of Civilization, was created in March 1992 and employs 130 scientists from inside and outside the Commonwealth of Independent States. The fund's purpose is to support environmental analyses of various projects and to make practical recommendations. (Interfax, "New Fund...", 1992, p. 28) In cases where single-issues are as large as the Chernobyl disaster, independent groups have taken on cross-border dimensions. (Zaharchenko 1993, pp 460-461)

The politicization of the environmental movement meant that in some areas concern manifested itself in the form of "green" parties and popular fronts which were very much oriented toward greater independence from the Soviet center. Both Estonia and Lithuania recognized an informal green political party. Pamyat formed in Russia partly as a movement for preservation concerns and also as a harbour of Russian nationalist sentiments. In the Ukraine, the association Zelenii Svet (Green World) also strongly supported national independence. Due to the all-encompassing control of the center, many of these groups have had the goal of trying to provide people with an independent source of information on environmental threats or trying to hold the authorities more accountable to the public and provide the public with more accurate information.²⁶

26 For more on the connection between the environmental movement and nationalistic expression in Soviet Union, see the round-table discussion in *Soviet Geography* June 1988.

The rise of independent environmental groups must be understood in the context of limited access to environmental decision-making, the politicization of movements along nationalist and ethnic lines, the explosion of environmental information, greater opportunity for international contact, as well as the increasingly polluted environment from years of neglect and abuse. It is no wonder that for these reasons a Russian newspaper claimed in 1990 that among the unofficial parties, fronts, clubs and organizations flowering under eroding state control; "groups oriented toward solving local environmental problems are appearing the most rapidly." (Levicheva 1990, p. 8) However, the strength of the environmental movement in the Soviet Union seems to have been adversely affected by worsening economic conditions in Russia.

A WEAKENED ENVIRONMENTAL MOVEMENT

The environmental movement under Gorbachev, was supported in large part by the anti-communist stance held by many groups. Thus, despite the continuation of severe environmental ills, the downfall of the Communist Party also changed the nature of support for environmental groups. As power devolved to lower levels of government, people found themselves having to make choices about continuing to support environmental causes or holding on to polluting production and energy facilities which provided many people with jobs and income. A bankrupt federal government can now do very little to support the development of new

environmentally efficient production nor to help transform existing facilities.

Public participation in and support of the Russian environmental movement appears to be declining. An official at the Russian Ministry of Ecology claims there are fewer groups who are capable of sustaining financial support now with rapid inflation and stagnant wages.²⁷ A member of the Russian Union of Scientists, Nikolai Krementsov, complained that support from scientists is declining. He claims that even "our intelligentsia thinks more about food than about the environment." (Brandt 1992, p. 23) As a fisheries specialist, L.A. Popov, says "Today, it's only a lazy man who doesn't swear to ecological values"; he adds, however, "in a poor country, to (put forth) propaganda about reduced consumption doesn't make sense." (Ibid) It is undoubtedly more difficult for environmentalists to recommend closing down plants when unemployment rates are increasing and finding jobs is becoming more difficult for many. The environmental movement in Russia has to contend with a wide range of difficulties. With decreasing public support, very limited resources, falling material standards of living, limited access to or influence over environmental decision making, and growing environmental ills, the situation for environmental groups continues to worsen.²⁸

27 From a telephone interview with Vladimir Tifonov, August 1992.

28 One western observer noted a decrease in environmental activism already in 1990. He mentions a growing tendency to

In addition, as one author notes, "the reasons for further environmental degradation go far beyond the recent economic breakdown; they are rooted in the lack of general social traditions and ecological consciousness in particular." (Wolfson 1991, p. 12) Even if one were to somehow magically inject all the necessary financial and material resources into the system to address environmental conditions, limited ecological awareness and materialist values would still present an obstacle to the environmental movement as it does around the world.

The environmental movement must consider that it represents a very real threat to those who currently benefit from polluting economic activities. Politicians and industry leaders are concerned about the economic cost of closing enterprises that pollute the environment. In addition, those who do not have decision-making power but who will lose their job and their financial support as a result of the closure of polluting enterprises also oppose change. The chief technologist at a polluting pulp and paper mill on Lake Baikal points out that it is not the 3,500 employees at the mill who oppose the mill's production. He claims the mill is "always [attacked] by people who wouldn't lose their jobs if this plant were closed." (Belt 1992, p. 36)

make environmentalists a scapegoat for the country's economic plight. (Peterson 1991 p. 16)

Knowledgeable citizen participation can help to resolve these difficult dilemmas by providing a different perspective on the trade-offs. In other words, government and business representatives may be more likely to view the trade-offs in terms of short-term monetary costs. Informed citizens may value their health and their children's health more than the short-term economic gains of production and may be willing to pay for an improved environment.²⁹ A program to educate the public about ways to conserve energy or about the risks posed by environmental degradation can help clarify the choices.

The maelstrom of economic and political change has made conditions increasingly difficult for independent environmental groups to sustain themselves, but it has in no way led to the demise of the movement. The basic reasons for their establishment remain regardless of the downfall of the Communist Party. Environmental conditions are still severe. The power structure and the interests of those in power today still resemble those under Soviet rule in many ways. Anti-ecological attitudes remain pervasive. Public participation may be enshrined in the law, but it has yet to become an accepted and engaged part of attempts to improve the environment. However, as environmental conditions

29 Yeager (1991, p. 329) makes the case that "to avoid forcing no-win choices on communities,... the government must endeavor to find ways to eliminate toxic waste without eliminating jobs." He suggests the possibility of a broad-based environmental tax on production and on some forms of consumption as an alternative.

worsen and public awareness grows, independent groups are likely to increase their resource base both intellectually and materially and become more influential.

Independent groups have an even more important role than ever to play with the continuation of previous environmental problems and the emergence of new problems. The Russian government's political crisis has blurred the lines of authority. Without clear delineations of power and with environmental protection organs subordinate to local organs of power, environmental regulation and monitoring has been even less effective. In turn, economic activities are more likely to disregard environmental legislation. The economic crisis has encouraged people to seek short-term profit over investment to improve environmental conditions. Under such conditions, independent groups may represent the principal voice for the environment.

INDIGENOUS PEOPLES AND THE ENVIRONMENT

Up to this point in this study, discussion on public participation in environmental cooperation has not centered specifically on indigenous peoples. However, due to the fact that Canadian/Russian cooperation in large part involves issues concerning the northern environment, this study tends to focus on public participation in the form of indigenous peoples (also referred to as native people). These people are some of the main non-governmental actors in environmental cooperation in the North. Indigenous peoples are an important link in any attempt to resolve northern

environmental issues and are thus given special attention by this paper. Although partnerships between indigenous peoples and other citizen groups exist in the North, the growing importance and specific context for indigenous peoples justifies separate treatment in this study

This section focuses on the context for native peoples in Russia. While certainly native peoples in Canada are subject to many of the same concerns, this study restricts itself to examining attempts at improving conditions in Russia. Moreover, it is important to understand the particular circumstances in Russia which affect prospects for a pro-environment movement specifically amongst native peoples.

The context for the environmental movement among native peoples is different than for other environmental groups in Russia. Although Russia consists of numerous groups of people involved in the environmental movement who are divided along ethnic and religious lines, groups of native peoples are arguably the most threatened by environmental ills and historically the least empowered to shape their destiny. On the one hand, this may be the result of an attitude, on the part of native peoples, not to oppose or question outside interference. On the other hand, any possibility for protest or influential participation has been forcibly curtailed.

Furthermore, the context is different, because in some instances native peoples do not act out of concern for the

environment. Native peoples have traditionally been dependent on the health of the environment for their livelihood and have thus sought to protect it. The situation is changing, however. Native peoples are now involved in environmentally destructive development projects for a living. Some native peoples are taking advantage of devolving power in Russia to exploit natural resources on their territories for economic gain with negative environmental consequences. The Yakuty, for example, are taking control of diamond mining on their territory. Native peoples have also been criticized by environmental groups for failing to observe hunting quotas, such as those on whaling.

In general, however, native peoples continue to be a vital link in northern environments. Many still rely on the harvest of country foods for nourishment and are thus affected by contaminants in the food. Contaminated foods and the decline in the number of certain northern species are high on the list of concerns for native peoples. Such concerns make native peoples strong proponents of environmental protection.

The plight of native peoples along with the growing environmental danger to them is now openly acknowledged in Russia, as the following account in a major Russian newspaper illustrates. This journalist refers to the threat posed by nuclear testing on the Arctic island of Novaya

Zemlya to the native people living along the shores of the White Sea.

Oncological mortality among native Northern peoples is higher than on average in the country by a factor of two. Cancer of the esophagus is encountered more often here by a factor of 15 to 20. Essentially, the 70,000 people settled along the shore are on the verge of dying out. The content of strontium-90 in the bodies of our reindeer herds exceeds the norm by a factor of 20-40. (Karkavtsev 1991, p. 4)

Such accounts are becoming more frequent in the Russian media as devolving power has allowed the veil of secrecy on the conditions for native people to be lifted.

The Soviet regime was very adept at convincing itself and the world at large that their interference in the lives of native peoples was bringing greater economic welfare and consequently improving the quality of their lives.

Increasing contact and information has demonstrated that in fact native peoples have suffered extensively. Greater economic welfare has come at the price of a loss of self identity and dignity.³⁰

In Russia and the Arctic as a whole, the environmental situation has steadily worsened. The reasons for the damage are numerous including;

- overfishing by commercial operations,
- military activities such as nuclear testing and practice maneuvers,
- seismic soundings for oil and gas exploration,

30 For more on the living conditions of native peoples in Russia see articles by Velikoredchanin (1992), Dudnikov (1992), Pika and Prokhorov (1989).

- untreated sewage, chemical and radioactive waste in the water from residential and commercial sources,

- air pollutants from a large number of human activities,

- discarded objects and scrap from various sources.

As a result of overfishing and other environmental threats, for example, one Russian scientist notes that from 1989 to 1991 a 75 percent decrease has been observed in the Arctic's annual fish harvest.(Matishov 1991, p. 73). The fish, including capelin, herring, and polar cod, are an important link in the northern food chain for other animal predators and for native peoples in this area. Studies of the diets and chemical physiology of northern residents has demonstrated that heavy consumption of local meat will result in higher levels of contaminants such as agricultural pesticides than would result from the consumption of food imported from the South.(CARC, "Arctic Pollution....," 1990, p. 8) The effects of environmental pollution are sometimes immediate and dramatic as in the case of large oil spills or when the radioactive cloud from Chernobyl contaminated the reindeer herds of native peoples. In other cases, such as the slow build up of contaminants in the food chain, the effects are not as readily noticeable.

Admittedly, the activities that have resulted in environmental damage have benefited some. The exploitation of natural resources in Siberian Russia has long been a source of wealth. Unfortunately, the ones who are most affected by those activities have rarely benefited. Rather, as one Canadian official describes it, from the point of

view of the native peoples. "there are contaminants in your food, contaminants overhead, the ozone is depleting, the ice around you is melting and you haven't benefited from any of those things." (Ulbrich 1992, p. A4)

While pollution concentrations in the North are comparatively much lower than in other areas of the world, the North's particular climatic conditions and remoteness contribute to potentially more serious problems. The extreme temperatures and distance of the North make it difficult to carry out environmental protection measures such as detection, monitoring, and clean-up. More limited sunlight means that the process of degradation of contaminants by solar radiation is slower. The arctic and subarctic environment is generally very sensitive to pollution, some of which originates from distant southern sources. However, studies show that while the potential for serious damage is high, the North can also quite readily respond to decreases in pollution. (Arctic Pollution 1990, pp. 2,5)

The response to the worsening environmental problems has been shaped both by increased knowledge about the magnitude of problems and by the increased participation of native peoples. Circumpolar countries, including Russia, are beginning to reassess their approach to native peoples toward one that recognizes their right to greater self-determination and their importance in preserving the Arctic environment. As one Russian academician reasons, "Without

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careful and thoughtful study and the use of centuries-long aboriginal expertise we will not be able to exploit rationally the natural resources of the Arctic or establish a sound food basis for its development." (Roginko 1992, p. 217) He observes that the native peoples' traditional means of livelihood are a valuable source of knowledge on how to use and maintain the fragile northern ecosystem.

In the past, the Soviet government and industrial developers have been notorious for their neglect and disrespect for the needs and interests of native peoples. Despite fairly large budgetary allocations for northern peoples over the last ten years, local authorities have misused the funds for other concerns such as housing for non-native peoples. (Sokolova 1992, p. 3) The newly formed Russian administration and current industrial leaders seem to be just as eager as their predecessors to develop the land of native peoples. The president of the northern republic of Sakha (Yakutia), claims that the "focus is still on utilitarianism in Moscow's relations with the northern periphery." (Nikolayev 1992, p. 5) President Yeltsin signed a decree on June 1, 1992 on developing native occupied regions such as Zapolyarnoe, Khavrutinskoe, and Pestzovoe without the input of local residents. The ability of local reindeer herders to continue their traditional lifestyles is threatened by this development. (Dudnikov 1992, p. 4) Unfortunately, now more than ever the Russian government is

relying on the development of northern resources to sustain the rest of the country.

The dilemma Russia faces over the need to develop natural resources and the threat this poses to native peoples is at least gaining more attention. The playing field is uneven with energy and hard currency needs taking the upper hand. However, all is not lost for native peoples and the natural environment. Pressure for greater recognition of the native peoples' right to greater self-determination and their importance in preserving the arctic and subarctic environment is coming from several sources.

One is the elected body of people's deputies which still has relatively little effective decision-making power. Discussion during the 6th Russian Congress of Peoples Deputies in the spring of 1992 reflected a growing concern for the plight of northern peoples.³¹ The deputies adopted a resolution on socioeconomic development of the North asking the Russian government to provide the funds for improving the social, ecological and economic situation. (Rossiiskaya Gazeta, "Decree..." 1992, p. 2)

President Yeltsin visited the regions of the Russian North promising to devote more attention to northern problems and, in an Ukase, assigned ministries the task of working out a program based on the deputies' resolution for

³¹ Deputies spoke out not only in terms of concern for the threatened aboriginal people, but also the large exodus of non-native people due to worsening economic conditions and inter-republican conflicts.

utilizing the land and other resources of the North with consideration for northern peoples. (Sokolova 1992, p.3) The Russian government has also initiated a coordinating body to respond to the program recommended by the Peoples Deputies. In July 1992, an Arctic and Antarctic Commission was established to help coordinate the scientific, socio-economic, economic, and environmental protection activities in these areas. The state commission is particularly responsible for improving international cooperation on tourism, scientific, and expedition activities in the Arctic maritime while taking into consideration Russian security needs and the scientific interests of foreign scientists.

Although government initiatives signal some concern over the survival of native peoples, they lack mechanisms to include native peoples in development plans. Any mention of administering resources, grants rights to state authorities only. The program was also criticized by the president of the Sakha republic because

It does not contain a system of measures guaranteeing restitution for the whole range of damage done to local economies and to the native population or concerning compensation for the environmental effects of industrial development of the North. (Nikolayev 1992, p. 5)

It remains to be seen what effects if any the resolution will have on native peoples and the environment.

The media also represent a source of pressure for change by encouraging people to look at the problems confronting the northern peoples. Well known Russian

newspapers such as Rossiiskaya Gazeta and Moscow News often print stories sympathetic to the native peoples' problems. Glasnost' in the press is at least a step toward greater consciousness raising.

Pressure will, of course, continue from native peoples and other independent environmental actors including scientists. Under the Soviet policy of glasnost, the first Congress of the Aboriginal Peoples met in March 1990 and established the Association of the Northern Aboriginal Peoples. The association is pursuing issues such as settling native land claims in Russia and provisions for more effective and meaningful participation in political decision-making. In other developments, a native woman from Chukotka has started a culture and trade center in Moscow called "Siyanie Severa" (Halo of the North) with plans to establish a place for business meetings, cultural festivals, scientific congresses, art exhibits, and restaurants featuring northern cuisine. (Musatova June 1992, p. 4)

The risk exists for the Russian government that if native concerns are not allowed adequate representation, pressure is likely to take on politically and economically disruptive forms.

A final source is international concern coming from foreign governments, independent groups, and businesses. Financial support for workshops and conferences and other joint projects on scientific research comes largely from American and European foundations and environmental

organizations. (Matishov 1991, p. 72.) Examples of international cooperation on the Arctic are numerous.³² In the next chapter, I discuss the development of international forums that are providing native peoples, industry, and governments in Russia and Canada with an opportunity to affect the environmental conditions in the North.

A COOPERATIVE EFFORT

Clearly, there are environmental issues which necessitate government to government contact due to the large role played by governments both in creating and addressing problems. But just as independent groups play an important role in assuring that governments and economic activities are environmentally responsible on a domestic basis in Russia, independent groups play an important role in the international sphere as well. In a country such as Russia, where industrial development has generally ignored local concerns, independent groups have had little effective recourse to play that role. Through cooperative efforts with foreign independent groups, governments, and foreign investors, however, Russian people are getting an opportunity to receive support.

The opening of political doors between East and West has helped facilitate the mushrooming of cooperative efforts on the environment. It may seem somewhat paradoxical that

³² For a partial list of government multilateral and bilateral initiatives see Osherenko and Young, "International cooperation in the Arctic," 1991, Appendix IV.

countries such as the United States, which so guardedly approached any contact with the Soviet Union, now help support efforts of independent environmental groups to convene.³³ However, government support, for whatever motivations, is a crucial recognition of the legitimacy of independent groups.

Where environmental conditions are not just a quality of life issue, but one of survival, there is a desperate need for action. The bureaucratic apparatus created under Gorbachev to deal with environmental problems was an ineffective source of action. A scientist working for the Russian Federation Ecological Commission claimed that an estimated 70 percent of those employed in the Ministry of Environment (Goskompriroda) were not professionally trained people but rather bureaucrats fired from other departments. Although a prosecutor's office had been established in Moscow, it did not initiate any investigations into the some 100 cases brought before it. Many cases of environmental violations were sent to regional jurisdictions which did not act either. (Russell 1991, p. 16) Goskompriroda's major accomplishments included the expansion of a network of biosphere nature preserves and the compilation of material on the state of the Soviet environment. (Bohlen 1991, p. 3)

33 During Yeltsin's visit to Washington D.C. in June 1992, the U.S. and Russia signed a joint statement on the environment and agreed to "strive to create conditions for fruitful contacts between the relevant official departments, scientists, and non-governmental organizations, and to convene a conference of experts on the environment in the very near future...." (ITAR-TASS, June 18, 1992)

The Russian Ministry of Ecology and Natural Resources may be more effective than its predecessor in improving environmental protection. In an interview with a member of the Canadian environmental ministry, the observation was made that their dealings with Russian environmental officials had not demonstrated a lack of professionalism.³⁴ However, given the continuing constraints of limited budgetary and material-technical support for the Russian ministry and the financial conundrum of polluting industry, independent environmental groups are likely to find numerous opportunities to pressure government officials to take effective action.

In the context of cooperation between Canada and Russia on environmental issues, independent groups have a particularly important role to play. Having experienced a major process of social transformation, Russia as yet lacks an organized institutional structure to effectively deal with social problems. Foreign independent groups can help sister organizations in Russia to develop necessary environmental regulatory structures. In lieu of weak institutional organizations, Russia's emerging independent groups currently represent the vanguard of an environmental strategy in Russia. Independent groups in Canada have much to offer these groups in the way of information on how to compromise, tactical strategies, methods of monitoring, as well as organizational and fund-raising skills. Russian

34 Interview with Peter Besseau, Ottawa, July 1992.

independent groups are generally poorly equipped and lack the funds for or access to basic office supplies, not to mention rare assets such as computers and fax-machines. Considering the limited funding most environmental groups have, however, supplying Russian groups with equipment is more difficult.

With much of Canadian/Russian cooperation focused on the North, indigenous peoples are a crucial part of development. Recognition of the importance of indigenous people in the decision-making process is unfortunately all-too recent as much damage has been inflicted on the environment and the lives of these people. The strengthening of international native organizations represents a particularly significant event for indigenous people who have much to offer and learn from each other.

In general, interaction of independent groups provides the Russian environmental movement with a means to exchange information, expertise, and education. Concretely, cooperation helps Russian groups to obtain the hard currency and resources needed to purchase technology or attend conferences. Such linkages also contribute to the status and visibility of foreign groups and groups in Russia. Solidarity with foreign groups gives a much needed psychological boost for the Russians who must deal with a powerful public attitude of impotence and indifference. (Shea 1991, p. 8) As one expert on environmental issues concludes:

In addition to the practical results of NGO cooperation, it provides badly needed support to indigenous environmental groups. By working with western counterparts, East Europeans and Soviets learn about and emulate the important role of public interest groups in forming environmental policy in the West. The public's right to participate is by no means taken for granted by bureaucrats in the region; entrenched attitudes die hard. (French 1991, p. 4)

Positive action in Russia will require tremendous efforts and the cooperation of independent groups will not go far without the cooperation of other participants. With multinational corporations establishing themselves in Russia, there is an opportunity for cooperation to help minimize environmental destruction. Foreign technology will help to address urgent environmental problems, although there is a need to help Russians develop their own capacity to produce such equipment. Bilateral initiatives on behalf of government officials will greatly strengthen efforts to address environmental issues. By working together with independent groups and business representatives opportunities are opened up for more cost effective, creative, and positive action.

Chapter 5

CANADIAN AND RUSSIAN COOPERATION

This chapter examines cooperation to address environmental problems in three areas: business efforts to provide ecological consulting; government efforts to provide technical and education assistance; and efforts by independent groups to exchange information and assistance on environmental problems. These three areas are the principal means by which Canadian cooperation with Russia is taking place. With the recent dissolution of the Soviet Union, Canadian assistance continues to be reassessed and developed in various forms. The focus is mainly on current projects with Russia, though most started with the Soviet Union.

In preceding chapters, the reader was given background to better understand the current context for cooperative efforts. The situation is made extremely difficult and frustrating with the instability and financial conundrum now occurring in Russia. As well, Canada is not in prime fiscal health to carry on an extensive effort. Political considerations play a role on both sides with Canadians and Russians concerned that cooperation be perceived as beneficial. Even under the best political and economic conditions, efforts to ameliorate and prevent environmental problems in Russia would be difficult. Russia's environment requires long overdue attention. Massive investments will be necessary before the underlying inefficient and polluting

infrastructure can become environmentally safe. Attitudes about the importance of the environment have yet to change significantly in Russia. Moreover, environmental problems, even when people are aware of them, must now compete for priority with desperate economic problems.

Despite the difficult situation, cooperative efforts continue between Russia and Canada. The point has been made that independent actors can make significant contributions to international cooperation. The opportunities for independent actors to play much of a role are very limited, however. This chapter provides the reader with an opportunity to examine how independent actors have been enabled to participate in cooperative efforts despite the limitations. The final chapter attempts to unravel some of the reasons behind the current state of cooperation efforts between Canada and Russia and examines the effect that obstacles have had on the significance of independent participation for improving environmental conditions.

BUSINESS WITH THE RUSSIANS

Canada has long been involved in trade with the Russians prior to and after the Bolshevik takeover in 1917. Primarily, Canadian-Soviet trade has consisted of grain exports from Canada, while more recently there has been a growth of interest in exporting products particularly in the oil and gas industry and in agriculture. With greater possibilities opening up in 1987 for foreign business involvement in the USSR, by 1988 five joint venture

agreements had been concluded. To further facilitate the growing interest among Canadian businesses, the Canada-USSR Business Council was established in June 1989. To date, Russia continues to promote joint ventures as the only form of foreign investment, though it is possible to own almost 100 percent of the venture.

Just as the possibility for joint ventures has come about recently, the flowering of business transactions related specifically to environmental measures is also relatively new. There have been efforts on behalf of the Soviet government to engage foreign expertise in the past, but on a very limited basis.³³ In most cases, technology or assistance to improve environmental conditions has been the indirect off-shoot of other projects. When foreign companies have moved in, they have sometimes brought with them more efficient technology that both reduces the amount of waste and uses less resource input. Russians have not been as interested specifically in environmental improvements as they are in increased efficiency. Aside from hardware, Russian businesses are seeking out joint ventures to meet numerous needs including instruction, systems management, and capital.

The enormous amount of waste and pollution in the Russian production system is attracting foreign firms which

³³ Great Britain and the U.S.S.R. staged a symposium on air and water pollution control as far back as 1973, and in 1975 a U.S. firm and a subsidiary of another U.S. firm in Canada planned to jointly market environmental protection and energy systems in the Soviet Union. (Eastern Europe Report)

see an opportunity to profit from environmental problems. A market exists for services in pollution control, in recycling waste, in trading recyclable waste, and in the disposal of nuclear and other hazardous wastes. Russia's outdated and deteriorating nuclear reactors will require massive refitting with hardened silos and more modern and reliable monitoring systems to improve their safety. The German firm, Siemens, estimates that to refit the nuclear reactors of the Commonwealth of Independent States (CIS) will cost around \$150 million per unit. However, competition to obtain contracts from the CIS to refit the reactors will be stiff, as orders for reactors are slowing down elsewhere in the world. (Hofheinz 1992, p. 114)

The most potentially lucrative market for environmental improvements has been in the development of oil and gas fields. Other areas are less likely to offer the same potential of hard currency profits as the sale of oil and gas resources can.³⁴ Foreign firms are far more experienced with less environmentally harmful techniques than any operating Russian production unit. Although foreign firms differ in the extent to which they are environmentally friendly, all offer Russia an opportunity to cut the amount of waste and pollution associated with oil and gas development. This is not a particularly difficult achievement, given the extent of inefficiency in the Russian

³⁴ Other sources of hard currency for environmental objectives to be considered include developing eco-tourism and scientific expeditions to nature preserves.

system. One German consultant estimates that Russian gas lines are leaking 8.5% to 10% of the 28.6 trillion cubic feet produced annually. Older gas pipelines lose as much as 40% of their volume. This loss amounts to a quantity greater than that consumed annually by Germany as a whole. (Mirais 1992, p. 68) An Italian pipeline servicing company found that in West Siberia some 33,000 miles of gas pipeline needed repairing and a further 2,500 miles of new line are required. (Ibid.) This is only part of the picture. Oil pipelines, compressors (used to boost the pressure of flow), and other parts of the industry are just as desperately in need of servicing.

Due to a multitude of obstacles³⁵, Russian reserves have only begun to be exploited by foreign firms. As of May 1992, there were only three operating joint ventures, all involved in the enhanced recovery of existing oilfields. Canadians were part of the first such venture called Yuganskfracmaster which included both Shell and Canada's Fracmaster. Fracmaster has been promoting its technology and expertise in the USSR since 1984. Though not aiming specifically at environmental protection, Fracmaster has provided an indirect benefit to the environmental situation in Russia by developing the "leftovers" of Russian industry with more efficient extraction techniques. Fracmaster is

35 Besides the difficulties with political and economic uncertainty, a bureaucratic quagmire, restrictive legislation on foreign investments, and any local opposition, the main obstacle to any of the proposed deals is the Russians' lack of hard currency.

also involved in another joint venture with the Russians to boost oil production in the Vakh oilfield.

Other Canadian companies are now planning to establish projects to extract and produce oil and gas in more undeveloped areas. Gulf Canada Resources together with British Gas and the Russian Government is working on developing oil reserves in the Komi Peninsula. By March 1992, the KomiArcticOil joint venture had started its first project and produced about 5,000 b/d from the Upper Vozey Field above the Arctic circle. There are also plans for a pilot project to enhance oil recovery in the Vozey field. (Oil and Gas Journal 1992, p. 41) PanCanadian Petroleum is another Canadian based firm currently working on deals with the Russians.

With geographical and climatic conditions very similar to those in West Siberia (where much of Russia's oil and gas reserves are located), Canada is well suited to providing Russia with valuable assistance. Cold climates are far more sensitive to development and pose a greater ecological risk. Freezing temperatures affect the safety of pipelines, the ability of the environment to regenerate from the effects of pollution, and hamper attempts to construct, monitor, and service oil and gas infrastructure.³⁶ Consequently, the

³⁶ See Peter Williams' account on Pipelines in Permafrost: Science in a Cold Climate, (Carleton University Press: Ottawa, 1986) for more on the difficulties associated with oil and gas development in the North.

machinery and technology used by firms in northern Canada are more easily adaptable to Siberian conditions.

Canadian firms also have some experience in dealing with concerns of environmentalists and native peoples. Given the growing strength of international efforts to improve the living conditions of native peoples and the lack of Russian experience in this area, Canada's experience provides a valuable source of expertise. Another relative advantage Canadian firms have is their size. Smaller firms add less of a burden to an already overextended infrastructure in West Siberia and do not take away as much resource development from local control. (Petroleum Economist May 1992, p. 36)

Canada's experience with northern conditions has provided an opportunity particularly for environmental consulting services. Canadian environmental consultants have been contracted mostly by foreign firms outside of Canada interested in doing business with Russia. In total, there have been about 14 different environmental consulting firms involved in work in Russia either with the Russian government and/or with Russian firms.³⁷ Only a few however, have actually followed through with their services.

The dissolution of the Soviet Union has had a very significant effect on contracts with foreign partners. Deals had to be renegotiated with not just the new federal

³⁷ See the Canadian Business Opportunities Sourcing System on environmental consulting with Russia.

government but also with lower levels of government and, in many cases, with industry officials. The Soviet government also paid less attention than the Russian government to the financial viability of joint ventures. Now Russia has more limited access to funding and is much more concerned with getting a good deal. In the wake of political and economic turmoil, many projects never materialized. The problems encountered by consulting firms are often ones that foreign investors in general face. Foreign firms which are environmentally sensitive are subject to many of the same infrastructure difficulties as those firms which are polluting.

One example of a cancelled project was a proposal to engage a Canadian coastal engineering firm in a conceptual design for the waterfront of a hotel in former Leningrad. The project never got very far off the drawing board for a number of reasons. The firm was contracted to assess the effects of building the hotel on the quality of the waterfront. However, the Russians had very vague technical information and lacked even the technical infrastructure needed to support such research. An assessment would have required taking much of the work to laboratories outside of Russia with more adequate facilities. Economically the project was not viable.

There are specific logistical and infrastructural problems for carrying out work related to monitoring and assessing environmental conditions. One Canadian

environmental consultant who was invited to give a paper at an EEC symposium on pulp and paper production near Lake Baikal reported that these difficulties were serious impediments to amelioration efforts there. Environmental problems around Lake Baikal have been highly controversial in Russia. Although by international standards effluent from cellulose production near the lake is "exceptionally clean," it undoubtedly pollutes a very unique ecosystem. (Belt 1992, p.33) According to the Canadian consultant, just documenting the contamination problems will require fairly sophisticated protocols and laboratories. Toxicology labs are inadequate and samples have had to be sent to Finland for testing. Progress on ameliorating environmental conditions will depend on technological advances and the speed with which they are introduced.

An engineering company in Vancouver was also negotiating with the Soviets to make pulp and paper production less environmentally hazardous. However, according to a representative, when the financial backers withdrew because the Russians were unable to come up with a barter arrangement, the project did not even get started. One of the major complications this company had to deal with, like so many other foreign investors, were jurisdictional disputes. Various levels of government refused to sign one contract document and each level requested separate documentation.

In the case of Lake Baikal, there may be more opportunities for Canadian firms with expertise on pulp and paper production to work with Canada's Ministry of Environment on a proposed project to exchange information on monitoring and assessment of the effectiveness of effluent regulations.

Unfortunately, some consulting efforts are enshrouded in secrecy. A Canadian firm called Chemex Labs is conducting tests of samples from Russia for a parent firm working with Russians. The spokesperson from Chemex Labs refused to divulge any information on the nature of the work other than that it provides some environmental analysis service. One can only speculate as to why such information is considered confidential.

This study did identify one Canadian environmental consulting firm that is now well established in Russia and is working with oil and gas development. Hardy BBT Limited provides environmental consulting services for Gulf Canada's KomiArcticOil project, for Petro-Canada, as well as for the U.S. based petroleum developer, Amoco. Hardy BBT Limited(HBBT) is a subsidiary of AGRA Earth and Environmental International Limited which is considered one of the leaders in the field of permafrost and geotechnical engineering. According to informational brochures, they offer Russia 20 years of experience in pipeline construction and environmental protection, environmental assessment, geotechnical engineering, water resources planning, and

native and community affairs in the northern environments of North America.

HBBT is currently either working directly with people in Russia or setting up working groups. Their role includes identifying groups with the ability and the proper qualifications to work with foreign companies, collecting information by contacting the research groups in Russia with relevant work, setting up a database line, and preparing assessments on physical and socio-economic conditions. One obstacle to working with some Russian research institutes is that they are not commercial and are thus not legally allowed to sell their services. For Amoco's project in Yamal, HBBT is working with the Yekaterinaburg Institute of Plant Ecology to prepare a biophysical report on the region. On the Komi peninsula HBBT employs an economic research institute to assist with a socio-economic study of that region.

HBBT is also working with non-governmental environmental groups, local people, and indigenous groups. The Russian representative for HBBT claims their work with the local and native people has become particularly important with devolving power structures in Russia. Gaining the permission and support of local people is critical to assuring the legitimacy of foreign investments. The representative claims that local people have been quite supportive of foreign projects because they consider the development of oil and gas resources necessary and

inevitable and from previous experience with Russian developers, they trust foreign investors as more capable of serving local interests.³⁸ Because of the more modern equipment and efficient techniques brought in by foreign companies they may be perceived as more environmentally safe than Russian developers. Foreign oil and gas companies have also been fairly sensitive to local interests by providing social amenities that are highly valued in these remote areas. In addition to material benefits, foreign firms such as Amoco are granting some royalties from mineral rights to local citizens.

Interestingly, opposition to oil and gas related joint ventures has been coming increasingly from bureaucrats, ministers and other authorities who are trying to gain full control of these projects. In the absence of clear divisions of powers, each level of government wants to be recognized as the major source of authority and each resents any curtailment of its power. Furthermore, foreign investors must contend with government environmental regulators, who are especially interested in enforcing environmental laws and standards with these projects. Joint ventures are much more likely to be able to pay fines and fees in hard currency than other, possibly more polluting, Russian firms.

The strict enforcement of environmental regulations in the case of joint ventures seems to demonstrate how profit

³⁸ Interview with Marat Khabibulov, July 1992.

motives can work to the benefit of the environment. Pressure on foreign firms to adhere to environmental standards may be coming from some independent groups, but the money starved government regulatory agencies can represent an even greater source of pressure.

HBBT's approach to engineering projects in Russia is a novelty in a country that has taken local concerns lightly or that has not responsibly met words with deeds. One official from the Russian Ministry of Environment working with foreign development in Western Siberia, Vladimir Trifonov, claims that native concerns are very important to the ministry. However, it remains unclear as to how such expressed concern translates into active support of native peoples. Moreover, it is the responsibility of foreign firms to conduct their own environmental impact studies and not the responsibility of government agencies.

It may be that because Canada's oil and gas firms have had decent environmental records and have experience dealing with local and native peoples' interests, they are not meeting with the same criticism given to other joint ventures.³⁹ Fracmaster and Gulf Canada are also not working in areas where environmental issues have traditionally been

³⁹ Some recent examples of local opposition to the environmental threat posed by oil and gas joint ventures include Chevron's venture in the former Soviet republic of Kazakhstan (Popov 1991, p. 2), the French company, Elf Aquitaine's "deal of the century" in the Volgograd and Saratov oblasts in Russia (Chernova 1992, p. 2), and the American Hunt Oil Company's venture with Sakhalingeologia in the Russian Far East. (Interfax, Nov. 5, 1991)

sensitive. However, HBBT has been working with an American and Russian joint venture in the Yamal peninsula in Western Siberia that has been and continues to be the subject of much controversy. With harsh climatic conditions and minimal environmental regulation on the Yamal peninsula, environmental damage is a serious risk. (Suokko 1992, p. 25)

Two Russian groups have been engaged in environmental oversight activities in this area. SEU is carrying out environmental impact assessments and a local group called Yamal Potemkin has also been keeping an eye on development activities. Independent oversight may be particularly crucial due to the lack of government regulation and the susceptibility of the terrain to damage.

Canadian/Russian business relations concerning the prevention and amelioration of environmental damage in Russia are still in their infancy. Environmental protection technology including pollution abatement equipment and low waste or waste-free technology is an area in which Canadian businesses have only begun to examine the potential for joint ventures. Several Canadian environmental consulting companies have had some contact with Russian businesses and government ministries. Foreign firms' reluctance to take on costly environmental and technological problems may prompt more involvement of environmental consultants to assess the risks. Helping develop Russia's capacity will likely reduce the expense of contracting foreign help. Environmental related work may increase as business cooperation in general

increases and the need for Russian's to develop their own capacity remains. The demand for preventive and ameliorative joint efforts is likely to grow despite the economic and political problems in Russia.

GOVERNMENT ENVIRONMENTAL COOPERATION

In the area of Canadian government initiatives on environmental problems, there are three major departments helping to coordinate efforts with Russia. First, there is the Department of Indian Affairs and Northern Development (DIAND) which has helped to develop the Arctic Environmental Protection Strategy (AEPS). Secondly, the Task Force on Central and Eastern Europe in the Department of External Affairs (DEA) and International Trade is working on a number of bilateral technical assistance projects. Finally, the Canadian Ministry of Environment is actively developing five working group projects with Russia. There are other government departments actively participating in these projects such as the Department of Energy, Mines and Resources and the Department of Fisheries and Oceans. These two departments also have minor separate agreements with Russia.

Bilateral agreements between Canada and Russia continue a 20 year tradition of assistance in fields related to environmental management. Canada signed bilateral agreements on environmental cooperation and on cooperation

in the Arctic and the North in 1989 with the USSR.⁴⁰ In February 1992, the first president of the new Russian Federation, Boris Yeltsin, visited Canada and reinforced these agreements by signing a protocol to the Declaration on Friendship and Cooperation. Yeltsin returned to Ottawa in June 1992 to finalize the official treaty on Soviet environmental and Arctic cooperation.

In other environment related matters, the Canadian Prime Minister, Brian Mulroney, called for an increase in funding to technical assistance projects from \$25 million to \$100 million to be allocated over the next three years. Some of this funding may find its way into improving the efficiency of production and decreasing the amount of waste and pollution created in production processes. An additional \$30 million, earmarked for nuclear safety projects with Russia and other former Soviet republics and Eastern European countries, provides particularly crucial assistance to prevent the environmental threat of nuclear accidents.

Northern Affairs

DIAND's efforts to cooperate with Russia focus on the AEPS which was signed in Rovaniemi, Finland in June 1991.

⁴⁰ Canada and the Soviet Union have signed a number of environment related agreements including a series of General Exchanges Agreements for Scientific and Technical Cooperation. The 1989 Environmental Co-operation Agreement was the first time however, that commitment on the environment had been raised to the level of an internationally binding agreement. For more information see CARC's publication on The Arctic Environment and Canada's International Relations.

The idea to develop a collective action plan was first launched by the Finnish government in 1989 and was known as the "Finnish Initiative", although Canada would later take a leading role in developing the initiative. All together eight Arctic states (Canada, United States, Sweden, Finland, Norway, Denmark-Greenland, Iceland, and the Soviet Union) agreed to this joint action plan. Under the AEPS these countries committed to take the following actions:

- *Arctic Monitoring and Assessment Programme (AMAP)* to monitor anthropogenic pollutants in all components of the Arctic environment.
- *Protection of the Marine Environment in the Arctic* to take preventive and other measures directly or through competent international organizations on marine pollution.
- *Emergency Prevention, Preparedness and Response* in the Arctic, to provide a framework for future cooperation in responding to the threat of environmental emergencies.
- *Conservation of Arctic Flora and Fauna*, to facilitate the exchange of information and coordination of research on species and habitats of flora and fauna. (DIAND 1992)

Canadian/Russian bilateral efforts have been conducted within a Work Plan on Contaminants in Arctic and Sub-Arctic Regions. The work carried out so far pertains mostly to preliminary studies of the environmental conditions in the Arctic and the North. Under the 1990-1991 Work Plan on Contaminants the primary achievements included:

intercalibration of the standards and norms used to measure

contamination, an exchange of information, and a number of joint studies. Research has been carried out in three main areas: on the sources, sinks, and pathways of northern contaminants; on the ecosystem's contaminant uptake and ensuing health effects; and toxicity and human health.

The studies reveal that much pollution is not local in origin but is transported from far away and that contaminants have built up in northern biota as well as in the humans consuming these food sources. These preliminary studies provide important data for determining what areas should be prioritized. DIAND has identified four key problems that ongoing efforts hope to address including the reduction and elimination of chemical contaminants, the clean up of abandoned wastes, the assessment of the impact of upstream water pollution on the North, and the promotion of locally created and implemented management plans.

There has been a wide range of actors engaged in the contaminants work plan. The Russian Ministry of Foreign Affairs is currently taking part in cooperative efforts. Formerly, the project also included the participation of Soviet government officials from Goskondromet and Goskompriroda, and scientists from the USSR Academy of Sciences and various institutes conducting northern-related research. With the dissolution of the USSR, these government-funded organizations have been forced to work under extremely constrained financial conditions. Russia has recently reorganized its environmental protection

branch. The Russian Ministry of Environmental Protection continues to be an actor, though with fewer resources. Unfortunately, major players such as the Arctic and Antarctic Institute in St. Petersburg had their funding completely suspended. Work continues with other institutes that have more minor roles including a number of Moscow-based research institutes and the Kola Peninsula Institute.

DIAND is working with northern and indigenous peoples, industry, provincial and territorial governments, and other government departments. According to DIAND's public information, "during the Finnish Initiative process, Canada played a leading role in encouraging other circumpolar countries to accept the direct participation of aboriginal peoples in the deliberations." As a consequence of these efforts, the Inuit Circumpolar Conference (ICC), the Nordic Sami Council, the Russian Association of the Aboriginal Peoples of the North, and other native groups such as the Dene have been incorporated into the government's strategy and are involved "at all levels of the decision-making process." (DIAND 1992) The Russian indigenous participants have been unable to finance the entire cost of traveling to meetings, but have been able to attend some of the ministerial meetings thanks to foreign support.

Although it seems there has been little or no participation of regional governments in Russia, advice of regional governments in Canada has been sought by the Canadian federal government. A representative from the

Northwest Territories government claims that the crux of the work rests with the federal government. They prefer to participate as an advisory body on issues such as how to include indigenous peoples in the process. Their role has also consisted of monitoring and assessing the project. Optimism was expressed for the efforts made so far and for the federal government's novel approach to northern problems by working with the people living in the North.

Bilateral cooperation has primarily occurred between government and scientific actors. The ICC and other native peoples have been the principal agents for independent participation. There have been a couple of other Canadian organizations participating. The Arms Control Center joined efforts to address northern security issues. Although CARC has been a vocal supporter of international Arctic cooperation and has published information on pollution in the Russian North, they have concentrated their efforts on domestic initiatives.

DIAND also plays a minor role in improving the environmental protection record of Russia's oil and gas sector. Together with the National Energy Board, an inter-departmental group is planning to provide Canadian expertise on petroleum resources rights management and other sector related regulatory structures. Cooperation is on a government to government basis with the Russian Ministry of Fuels and Energy and the regional government in Tyumen oblast in Western Siberia. According to a representative at

DIAND, Canada's experience in constructing the Norman Wells oil pipeline in permafrost regions can provide valuable information to Russia's own permafrost pipeline construction. This project certainly appears to offer Russia's oil and gas sector an opportunity to learn from Canadian experience of burying pipelines and maintaining their safety. However, Canada may also have an opportunity to learn from the Soviet method of constructing above-ground pipes both for oil and gas. Soviet experience has aptly demonstrated the dangers of such methods. Cooperation may give impetus to finding environmentally safe methods for constructing gas pipelines in permafrost - a feat that has yet to be accomplished.

In other Arctic related cooperation efforts, Boris Yeltsin and Brian Mulroney declared their nations' support for the creation of an International Arctic Council in February 1992. By building on the ongoing work of the Finnish Initiative, the Council's objectives are to protect northern populations and resources. According to a Canadian expert on Arctic cooperation, Walter Slipchenko, it is hoped that the Council would function as a means to inform people. The international regime would be established not only as an inter-governmental forum but would also provide access to "local and territorial governments, arctic non-governmental organizations, and organizations with an immediate interest in Arctic affairs." It is not intended to function as an oversight organization, meaning it would not act as a

"whistle blower" for environmental violations. Rather it appears to be more of a forum for various interested parties to convene and discuss circumpolar issues. A multilateral Arctic Council has yet to be established and thus it remains to be seen what role such a forum will actually play.

External Affairs

A second Canadian federal department heading up efforts to work with the Russians on environmental cooperation is the Department of External Affairs and International Trade(DEA). There are two units in DEA that have environmental related efforts, the Task Force on Central and Eastern Europe and a specific environmental unit. The Task Force is working on a wide range of bilateral technical assistance projects. To date, only a few Task Force projects have had an environmental protection dimension.⁴¹

A March 1992 description of the one environmentally related project claims:

Up to 700 technical workers and professional staff will be trained in Komi and Khanty-Mansi regions and 16 senior managers in Canada, in order to improve safety, environmental protection and operational efficiency in the petroleum industry and to support the development of joint ventures.(External Affairs, March 31, 1992)

DEA is working with the Calgary-based Petroleum Industry Training Service (PITS) on this project to aid the KomiArcticoil joint venture. With a \$1.6 million aid contract in Western Siberia, the service is supposed to "teach oilfield economics, drilling, safety, and maintenance

⁴¹ The information on the Task Force's proposals was supplied by project officer, Bruce Steen.

on the permafrost while senior exchange students will come to Alberta to learn new technologies on the ground." The training service vice-president, Wayne Wetmore, says "Hopefully that would open up new opportunities for more commercial joint venturing." (Nagle 1992, p. F3)

Hopefully, these efforts will not just create new opportunities for joint ventures but will also help improve the terrible environmental record of the Soviet oil and gas industry in West Siberia. PITS has helped train 69 workers in Russia mainly on technical aspects of oil field operation and has even worked to bring about more cultural awareness between Canadians and the workers in Russia to improve cross-cultural communication. Environmentally related work has included basic safety training and blowout prevention methods. The poor quality of Soviet oil and gas pipeline monitoring and preventive maintenance has contributed to numerous accidents in Russia. Although there are other factors that have contributed to leakages and spills, such as the low quality of pipeline construction, improved monitoring could significantly reduce the number of environmentally destructive incidents.

DEA will also be involved in disbursing the funds from the recently approved \$30 million for nuclear safety, although it is unclear at this point how allocations will be made. In general, the task is "to make Canadian expertise available to the nuclear power industry in Russia and other countries to help alleviate the risk of nuclear accidents at

Soviet designed nuclear power stations."(Todd 1992, p. 18)
Canada's nuclear systems have somewhat similar design and operational features to the feared Chernobyl-type RBMK reactors. Businesses such as Atomic Energy of Canada Ltd. will be trying to retrofit some of these reactors with modern safety features. Although the resemblance of Canadian reactors to Russian ones is limited, any aid is needed to help redress an ailing nuclear industry.

However, independent analysts believe that even these steps will not be adequate to ensure internationally acceptable safety standards. Unfortunately, any attempts to close facilities are likely to be stifled by Russia's dependence on these facilities for energy needs.

The Task Force's programs with Russia are mostly geared toward business related efforts. Canadian funds have been used for such projects in Russia as agricultural training, defence conversion, textbook development, language training, and medical supply shipments. There are a number of environmental protection assistance projects in other East European and former Soviet countries including environmental assessments and the transfer of more energy efficient and environmentally safe technology. However, the Task Force's work with Russia on energy, environment, and resources focuses on the development of the oil and gas sector with very limited attention given directly to environmental issues. A study is also being made of the pulp and paper industry in Russia with an eye again to "assist the

development of joint ventures and other commercial opportunities." (External Affairs March 31, 1992)
Eventually, this may lead to abating the pollution created by pulp and paper mills.

The Task Force's literature reveals a concerted effort to engage actors from all areas including government, industry, consulting agencies, academic institutes, non-profit organizations, and other grassroots initiatives. However, the Task Force's assistance to improve environmental protection in Russia works mainly with industry partners. This is due to the fact that the aim of this particular program is to improve efficiency, reduce waste, and step up productivity by focusing on providing expertise to industry sectors such as energy.

The environmental division of External Affairs is another source of assistance. At the time of writing this paper, DEA was still negotiating two projects. Because they were not yet public, limited information was available. The agreements with Russia are part of Canada's national environmental "Green Plan" which is mostly a domestic initiative but also includes an international dimension. Russia is one of the countries given priority in Canada's assistance program. This effort is a response to the recently signed environmental cooperation treaty with Russia in which Prime Minister Mulroney announced technology

transfer assistance. According to a representative⁴², the proposals are just getting underway now because the support funding has just been approved. The Green Plan itself is only in the beginning of its second year.

The first project is to establish monitoring stations for atmospheric pollution in the Arctic. One station is now functioning in Alert and another is proposed in Yellowknife. With a budget of some \$200,000, DEA is funding this project in cooperation with DIAND and the Atmospheric Environment Service unit of Environment Canada. The motivation for this project comes from two main concerns. One is that the Russians have neither the money nor the technology to monitor atmospheric pollution. Another reason is concern over how air-borne pollutants are affecting Canadian territory.

The second project also commands another \$200,000 to achieve a variety of technical and informational assistance. DEA is negotiating a proposal to contract Canadian consulting firms to promote technology transfer and to help the Russians identify and prioritize their environmental problems. Rather than just giving the Russians environmental technology, the Canadian government is attempting to provide expertise which puts the responsibility on the Russians to take action. The desire is to help the Russian's help themselves. Other areas of

⁴² Information on these projects was given in an interview with DEA officer, Bruce Christie, September 1992, Ottawa.

technical assistance may come under this project including but not limited to waste-water treatment, forestry management, and industrial pollution control.

Environment Canada

The third main thrust of Canada's government based environmental assistance to Russia is from Canada's Ministry of Environment. Whereas DIAND is responsible for northern related cooperation and DEA is focused on the economic and political transformation of former communist countries, Environment Canada's principal directive is environmental protection cooperation. Consequently, a comparatively substantial agenda can be found in their "Working Programme of International Cooperation" (WPIC).⁴³

The program was initiated under the Soviet regime with a total of seven working groups. Since the dissolution of the Soviet Union, five working groups are continuing to function. One project on the Marine Environment and another entitled Environmental Assessment are now dormant, pending a reciprocal Russian initiative to offer groups and organizers to implement them. The remaining projects include:

- Pollution Issues (industrial applications for Canadian environmental technology);
- Water Pollution (inland water);
- Natural Resource Management (protected areas, renewable resources, and non-renewable resources);

⁴³ The information on Environment Canada's proposals was provided by project officer, Peter Besseau.

- Environmental Policy Issues (environment-economy integration; environment-industry cooperation; environmental regulation incentives, legal aspects; environmental information and decision-making; and environmental education and training);
- Human-environment Interface (environmental training and education, emergency preparedness and response systems).

The actions taken by these working groups consist of exchanges of information, professionals, and specialists as well as joint projects, workshops, seminars, visits, and expeditions. Most of WPIC's objectives involve information exchanges. Because the WPIC was established primarily on a government to government basis, changes in government actors significantly affected Environment Canada's efforts. As a result of the upheaval in Russia, particularly since the failed coup in August 1991, much of the WIPC's contents remained inactive throughout the 1990-1992 project implementation period. At this point, project implementation continues to be a slow process and some plans are still tentative.

The Canadian side will include a number of government agencies, although private sector participants are also engaged in the cooperative efforts. The principal actors are the Department of Environment (DOE), Energy Mines and Resources (EMR), and DIAND. The work with DIAND also includes EMR and the Conservation and Protection branch of DOE and involves an exchange of technical information

concerning emissions of SO₂ and H₂S in northern regions particularly. In the working group on Water Pollution, DOE and its National Water Research Institute has been the primary participant. Branches of DOE participate in all the working groups to various degrees.

The working groups on Natural Resource Management and on Environmental Policy Issues will possibly include a number of Canadian universities. Dalhousie University which leads one of the working groups is supposed to be engaged in an exchange of information on the development and implementation of policy for the sustainable use of natural resources.⁴⁴ The list of participating academic institutes will likely grow as Environment Canada continues to search for partners in its cooperative efforts.

In Russia, Environment Canada is working mostly with the various ministries responsible for resource and energy production, the Russian Ministry for Ecology and Natural Resources, as well as other environment related branches. In addition, a number of scientific research institutes such as the Russian Academy of Sciences and the Institute for Lake Studies in St. Petersburg have played leading roles.

In each project, it is the obligation of the government ministries to allocate responsibilities to the appropriate organizations. Thus any effort to engage domestic partners comes from each country's government. The objective is to

⁴⁴ Since the participation of universities other than Dalhousie is still tentative at this point, this study can only name Dalhousie as a participant.

incorporate a broad range of partners that can lead and help develop projects. Environment Canada and its Russian counterpart ministry, appear to support partnerships with non-state actors. From the information supplied, initial proposals emphasize partnerships with industry and scientific actors in particular.

At this point, however, public involvement in the form of indigenous groups, citizen action groups, and other non-profit organizations has not been specified. There are two areas which are likely to be implemented with the participation of these groups. The working group on natural resource management includes a study of the participation of Russian native peoples in the management of protected areas. It will be up to the Russian Committee for the North, the Russian Federation Supreme Soviet, and the Institute of Evolutionary Morphology and Ecology of Animals to implement the project and engage independent actors.

In addition, the working group on Human-environment Interface has the potential of including groups that are more on the grassroots level. The Russians have expressed their interest in the working group's proposals to develop emergency response systems and to develop exchanges on environmental education. Efforts to further define the objectives of this working group are ongoing at the writing of this paper. The potential clearly exists for greater participation in this area for non-governmental, non-business groups not only from Canada but also from Russia.

Conclusion

Progress on these government bilateral initiatives has been slow and often complicated by a number of obstacles. According to the various Canadian government officials involved in these efforts, the difficulties are primarily on the Russian side. Reciprocity is a particularly difficult issue considering Russia's financial straits. Canadian participants are forced to assume a majority of the financial support for projects in order to assure their completion. The chaos in Russia has complicated efforts to identify the decisionmakers and has led to a proliferation of incomprehensible and ineffective legislation and regulation. Corruption among officials and old-boy networks are also cited as problems. Consequently, Canadian officials find themselves not just trying to negotiate proposals to improve environmental conditions, but also to teach Russians how to carry out effective bilateral relations.

The base of participation in Canada is broadening as projects become more defined and officials search for ways to maximize their opportunities. Private industry, consulting groups, and regional government officials are helping to share the load of cooperative efforts. Canada's main emphasis in cooperative agreements related to environmental matters is on technical assistance and scientific exchange. Assistance is geared, particularly,

toward projects such as creating joint ventures and training personnel and even managers.

Agreements mention cooperation with regional and local governments, with economic interests, with academic institutes and with aboriginal peoples. DIAND makes a commitment to engage northern communities and native organizations. DEA's Task Force on Central and Eastern Europe claims it is "primed to tap as many sources as possible for commitment, involvement and action," but does not include any Canadian environmental groups. (DEA, "Joint Message...." 1991, p. 4) It is too early to identify independent participants in proposals from External Affairs environmental unit. Environment Canada also supports partnerships and has an "Environmental Partners Fund" to be used in support of community projects.⁴⁵ These statements demonstrate that partnerships are of concern to the Canadian government.

The Canadian government maintains that it desires to engage a broad range of participants. However, agreements with Russia do not mention specific support for independent environmental cooperation. Although there is always room for more environmental initiatives, the Canadian government has begun to play a major role in cooperative efforts with Russia. The environment and indigenous peoples in the

⁴⁵ Hazell (1992) maintains that "partnerships" are now a crucial part of government environmental initiatives.

circumpolar North, in particular, are beginning to get the attention necessary to resolving problems there.

INDEPENDENT PARTICIPATION

Participation by independent groups in cooperation on environmental problems with Russia can be divided into two sections. The first group includes university academics and research institutes and the second group includes non-profit organizations that represent various environmental interests including those of native peoples. In the first group, this study identifies those universities currently involved in government related programs as well as others with environmental related cooperation projects. Currently, Dalhousie University is the only academic group directly involved with government programs, although other university participants are under consideration. Research institutes such as the Arctic Institute of North America in Calgary, Alberta are working with Canadian businesses. In the second group, the Socio-Ecological Union in Russia and the Inuit Circumpolar Conference (ICC) are two of the major independent actors. There are a great many environmental non-governmental groups cooperating with Russia throughout the world. Canada's organizations are primarily oriented toward domestic issues and few internationally oriented organizations have relations with Russia.

The role of independent groups as a "watchdog" or as a form of surveillance in international cooperation can occur in two ways. A few groups are adequately large and well-

funded to carry on activities internationally on their own. Most, however, are represented in some way in international cooperation as a result of support from governments and businesses. Greenpeace International and Friends of the Earth International are two examples of international groups which are large and well-resourced.⁴⁶ An example of how these organizations serve the role of watchdog was recently demonstrated by Greenpeace. At the meeting of countries on the International Convention on Prevention of Oceanic Pollution⁴⁷ in 1991, Greenpeace charged the USSR with violating the convention by illegally dumping radioactive wastes in the Arctic. Greenpeace played an important role in bringing these serious violations to the attention of the international community and in pressuring governments to take action. Monitoring activities and enforcing state compliance of international laws and standards is also being achieved through the use of international law in international courts and by forcing certain issues onto international agendas. (Sand 1991, pp. 30-31)

There is, however, very limited participation of Canadians through international independent groups. Although some Canadian citizens are members of international independent groups such as Greenpeace and Friends of the

⁴⁶ Of the two groups only Greenpeace currently has a branch in Russia. FOE is located in other former Soviet republics.

⁴⁷ Both Canada and the Soviet Union are signatories of the 1975 agreement which forbids the discharge of radioactive wastes into the sea from ships, aircraft, or other means of conveyance. (Lyutyy 1991, p. 4)

Earth, the branches of these groups in Canada are working on domestic issues. Likewise, the Russian branches are staffed mostly by local people and focus on domestic concerns.⁴⁸ With a relatively small population and the long distance from Russia, Canada has fewer organizations capable of independent international cooperation with Russia. In addition, many organizations with international outreach, such as those under the umbrella of the Canadian Council for International Cooperation, have focused their efforts on cooperation with developing countries. Only more recently have some environmental groups started to focus more attention on Eastern Europe. Independent cooperation with Russia has been a relatively new phenomenon for Canadians. It may also be that Russia is given less priority due to a higher level of industrial development and a relatively well-educated workforce. With so many countries in need of assistance and a shrinking Canadian pie, Russia is just one more option. As various groups begin to recognize the need and the opportunity for cooperation with Russia, it may become more of a priority.

Academic and Research Institutes

Most of Canada's independent participation, including the following category of academic and research institutes,

⁴⁸ Unfortunately for the Moscow headquarters of Greenpeace, the Russian government views it as a western organization and thus subject to higher fees for service than "Russian" organizations. The Moscow branch does receive international support due to a lack of local contributions. (Moiseyev 1991, p. 3)

relies on the sponsorship of business or government initiatives. The Arctic Institute of North America in Calgary was commissioned by the oil and gas industry to do consulting work. In December of 1991, the research institute ran a short environmental course for two officials who now work for the Russian Ministry of Ecology and Natural Resources. The Russians were interested in learning about the aggressive entrepreneurial approach taken by Canadians and about Canadian experience with land-use planning and with aboriginal groups on land claims. The course was completed and considered to be successful in meeting its objectives, according to the executive director of the institute, Michael Robinson. He related that the officials were quite knowledgeable about environmental impact assessments and the environmental records of various foreign oil and gas companies. The course's objectives were also facilitated by the Russian participants' ability to speak English.

One of the few independent actors in Environment Canada's WPIC is a group from Dalhousie University. The working group on environmental policy issues is engaging Dalhousie's Environmental Studies department in a project on "cooperation on the development and implementation of policies leading towards sustainable use of natural resources including legal, regulatory and economic measures." (Environment Canada 1991, p. 25) More specifically, ongoing work includes the further

consolidation of the joint protocols established in the spring of 1992. Participants at Dalhousie are trying to find funding to help support an environmental training course for Russian bureaucrats. In addition, they are working on a project to develop recreational fishing in the Kola peninsula. The project is an attempt to sustain stocks of Atlantic salmon in Russian waters. Other actors include the Atlantic Salmon Federation (including the Russian branch), the regional government of the Kola republic, the Russian Hunting and Fishing organization, and the Russian Ministry of Ecology and Natural Resources.

Dalhousie's department for Environmental Studies is the only non-governmental group to have a person acting as a co-chair of one of the government's working groups. The current co-chair, Dr. Gordon Beanlands, calls the government's working group on environmental policy issues a unique and novel approach. He claims that, the other working groups tend to rely on a more traditional bureaucratic approach while this working group is engaging a non-governmental actor to lead it.

Dalhousie's cooperative efforts are founded on a long-standing connection with the Russians. A Russian Language training program has been in effect since 1975/76, and an exchange program has helped support the travel of 200-300 people to Russia. In a separate initiative since 1990, the Chemistry department has been engaged in developing a cooperative agreement with the Mendeleev Institute of

Chemical Technology (MICT). MICT has a new Industrial Ecology department that will be involved in proposals for faculty exchanges and joint-projects. Interest has been established in "advanced materials development, and environmental management and science especially in the area of training professionals and students." (USSR and Eastern Europe Relations Steering Committee Minutes, Jan. 8, 1991)

Dalhousie has also had a tradition of developing strong ties with government and industry. The language programs and broad base of academic expertise at the university provide a useful resource for both government and industry. Moreover, an established network of contacts in Russia makes the university a more cost-effective source of cooperation. The university has benefited from such ties as well in terms of strengthening its academic programs and increasing its profile as a valuable resource.

The Geography department at Carleton University in Ottawa, Ontario was another academic source of cooperation on environmental-related matters interviewed for this research. Under the direction of Peter Williams, the department is in the process of establishing an international research laboratory on geocryology studies with the Russians and the French. Geocryology is the study of freezing soils and the project aims its research more specifically at the impact of freezing soils on man-made structures and vice-versa. This research is a particularly valuable component of attempts to make pipeline construction

more environmentally safe in northern climates. The Russians have long-term and well-established academic programs on geocryology but lack the modern technology and resources available to Carleton's comparatively miniscule research program.

The extensive Russian research experience and the large number of people involved, claims Williams, would be advantageous to Canada. However, the proposal has faced a number of obstacles. Foremost, there continues to be a lack of awareness on the part of government officials and industry heads as to the difficulties with pipeline construction in the North. Canada has one buried oil pipeline, the Norman Wells pipeline, but has been unable to construct a gas pipeline which can withstand the climatic conditions of the North.⁴⁹ The Russians have built hundreds of gas and oil pipelines above ground with dire consequences to the environment and levels of productivity. One estimate places the number of major breakages in oil and gas pipelines at 700 annually. (Yablokov, "Reaktor..." 1992) Despite the environmental threat, foreign firms are planning to build more gas pipelines in Russia. This author questioned a representative of the Russian Ministry of Ecology branch associated with environmental impact assessments and of a Canadian firm conducting assessments in Western Siberia on the lack of research to ensure protection

⁴⁹ Only a small pipeline carrying liquid natural gas (LNG) has been constructed.

of the environment. Both insisted that adequate engineering expertise existed to guarantee the safety of building gas pipelines in permafrost areas.

The applicability of geocryology research to environmental and productivity concerns makes it a prime target for cooperative efforts. By providing benefits to oil and gas development in both Canada and Russia, gains are potentially reciprocal. A joint project would be an important boost to a financially ailing Russian university with useful expertise. At present, it appears that at least there is some business support for such a project if not government support.

In the preceding subsections on governmental initiatives, a number of Russian academic and research institutes were named. Such actors make up a significant part of international environmental initiatives. Although this study does not cover Russian institutes in depth, it should be noted that the information provided by such institutes is a source of independent action. It may be argued that Russian institutes are not "independent" due to the fact that they rely heavily on government funding. However, these institutes are not the decisionmakers and their inclusion in cooperative efforts can provide relevant information to hold violators accountable.

Non-governmental Organizations

Communication difficulties tend to be one of the biggest concerns for cooperation at all levels, but more so

for small non-profit organizations. Without the funds to make the trip across the Atlantic, even with the relatively minor costs of telephoning or faxing, and with the inadequacy of Russian communications systems it is no surprise that cooperation is likely to involve well-resourced groups. A relatively obscure and small Canadian independent group called the Coalition to Oppose the Arms Trade (COAT) has sought to increase and improve its ties with Russian organizations dealing with issues of military conversion to socially useful and environmentally sound purposes. However, COAT's efforts have been stymied by the high cost and difficulty of communication and the lack of any outside support for the group's causes.

The large Inuit Circumpolar Conference (ICC) network, on the other hand, has been more successful at sustaining international contact. The ICC is not specifically an environmental group. Native peoples are brought together by ethnic ties as well as shared economic and political issues. Although some of its funding comes from private sources, it does rely on significant federal government funding to sustain its activities.

Established in 1977, this non-governmental organization represents about 115,000 Inuit in Alaska, Canada, and Greenland. (DIAND 1992, p. 3) ICC's goals have included helping to inform the public on such topics as environmental health risks and working to ensure the fulfilment of international agreements. ICC works together with other

indigenous organizations around the globe including the Nordic Sami Council in Scandinavia and with the Association of the Aboriginal Peoples of Northern Russia.

These groups have been cooperating with the governments of Arctic countries on the Finnish Initiative's goals to develop collective action on the Arctic environment. ICC is involved in the management structure of the Finnish Initiative. Although Inuit leaders may have greater say one day, it is not yet a full member of the meetings between the eight circumpolar nations. Its role is basically as an official observer with non-voting status.

A representative of the ICC gave a positive view of the role the group is playing in international cooperation. Anxiety about contaminants in the North is very high among native peoples. However, current government initiatives seem to be making headway into dealing with contamination, albeit slowly. An encouraging sign has been the inclusion of native peoples' concerns in the United Nation's commission to address long-range pollutants from Eastern Europe, one of the primary sources for Arctic contamination. It is hoped that within two years there will be some concrete multilateral restrictions on polluting emissions.⁵⁰

Optimism is supported by the changing political climate in Russia which has made it possible for the Canadian and Russian Inuit to convene with official support. In July of

50 From an interview with Nancy Doubleday, Ottawa, June 1992.

1992, the ICC gathered for the first time with the formal representation of 20 Inuit and Chukchi from the newly formed Republic of Chukotka in northeast Russia. With a litany of environmental concerns, the president of the Republic of Chukotka called for help from the other participants at the conference. Specifically, he said they are in desperate need of new telecommunications equipment and modern technologies to keep mining developments from polluting the land.(Cernetig 1992, p. A5) Representation in the ICC may not lead to such immediate help, but it does provide the Russian Inuit with a voice in an increasingly sophisticated and respected international body.

An important part of the link between native peoples around the world is the World Council on Indigenous Peoples (WCIP). The ICC along with other native people's groups in Canada and Russia are members of this organization which was founded by the Nordic Sami Council and Canada's Assembly of First Nations. WCIP represents a significant source of information on issues such as the environment which are of concern to native peoples. Although WCIP does not have the teeth necessary to act as a watchdog, it does create incentives for groups to act within their respective countries.

A representative of the organization in Ottawa claims that one way of encouraging people to act is by informing native people's of the content of agreements. He argues that governments do not promote the information relevant to

native concerns because it may entail allocating resources to areas that are not government priorities. If native peoples are aware of relevant information, they can act to oppose or support it. The media provide an important means for making their concerns public and for potentially embarrassing politicians. In light of the resistance from those in decision-making positions to redistribute power, he reasons that for the native peoples, knowledge is a source of power.⁵¹

In discussing the participation of independent groups in environmental cooperation, this study focuses primarily on the Canadian side of the story. Aside from the Russian native peoples working internationally, there are of course numerous academic and research institutes working with Canadians on environmental issues. The search for public environmental groups in Russia revealed only one group which has recently worked together with Canadians on environmental issues.

The Socio-Ecological Union(SEU) is perhaps one of the few associations in Russia capable of much action. SEU carries on a wide range of activities including ecological education, monitoring of territories and aquifers, the creation of an electronic mail network, and the development of ecological business. These activities are made possible by the broad network of groups under SEU's umbrella and by

51 From an interview with Rodrieguez Contreras at the Ottawa branch of WCIP, August 1992.

private funding, some of which comes from international donors. SEU's membership consists mostly of people with a scientific background but also includes people's deputies in the Russian parliament as well as some people in the local councils of many cities. Other prominent members, such as Vsevolod Stepanitsky, who is the head of the Russian Department of Nature Reserves, and Sviatoslav Zabelin, who is the assistant to Aleksey Yablokov (Boris Yeltsin's ecological counselor), help raise the organization's profile.

SEU was contracted by the World Bank in 1992 to prepare an environmental impact assessment of oil and gas development in Western Siberia. The World Bank allocated funding for the project to be quickly completed in a short six weeks while it considered loaning the Russian oil and gas industry nearly half a billion US dollars. Canada got involved in the picture when it became apparent that SEU did not have the expertise to carry out impact studies. Thus the subsidiary of AGRA based in Alberta, HBBT, helped train SEU members to collect data and conduct studies.

SEU's support by the World Bank represents the international organization's attempt to orient some of its funding toward independent environmental groups. Environmental impact studies are usually the responsibility of the government agency which is being considered for a loan. However, at the time, Russia was not an official member of the Bank and the work had to be contracted to a

group outside of the Ministry of Energy and Fuels. One of the Bank's operational directives is to involve the public. Without indigenous environmental consulting companies similar to HBBT, SEU was chosen as a group that could build up the country's capacity to do studies. SEU's wide network of contacts, and scientific and technical expertise also made it an attractive choice.

The choice of SEU seems to be somewhat controversial, however, given their lack of expertise specifically in environmental impact studies. An official with the Russian Ministry of Ecology reports that the SEU was not a good choice because the members are "not professional."⁵² The Russian representative for HBBT claims there are other more qualified Russian research institutes or even other foreign consultants which would have been a more logical alternative.⁵³ It appears that SEU's idea of an environmental impact study differed from common practice in the West. Known as an "ekologicheskaya ekspertiza" in Russia, the group did an independent survey which did not include any of the key players. Western analyses try to come to a common understanding of the ecological risks involved by incorporating the key players. When the Ministry of Fuel and Energy realized they would have to give their approval to the assessment, the deal fell through.

⁵² From an interview with Vladimir Trifonov, August 1992.

⁵³ From an interview with Marat Khabibulov, July 1992.

SEU did complete their assessment and the World Bank will use it as additional information. Currently, however, Russia is a member of the World Bank and the Ministry of Energy and fuels is now responsible for conducting another study. Meanwhile, the loan remains on hold.⁵⁴

In this instance, it was the World Bank that promoted cooperative efforts between a Russian environmental group and a Canadian firm. The area of oil and gas development in Western Siberia is one that could incorporate a lot more of government, business, and independent group interaction. A sound regulatory structure in this area could benefit each of these three actors. (Suokko 1992, p. 25) Because Canadian expertise is particularly well adapted to this field, it will likely continue to play an important role.

CONCLUSION

Canadian and Russian government bilateral initiatives reveal a wide range of efforts to address environmental problems in Russia. The number of projects underway and proposed suggest a significant effort is being made to help improve environmental conditions in Russia. Current efforts also suggest that areas such as environmental technology transfer and grassroot environmental education remain relatively untapped. Developing such areas could be facilitated by partnership initiatives between business,

⁵⁴ From an interview with Kirstin Suokko a member of the U.S. National Resource Defense Council, an independent environmental group which helps consult the Socio-Ecological Union, August 1992.

government, and independent actors. In the final chapter, the role of knowledgeable non-state actors in Canadian and Russian environmental cooperation is further examined.

Chapter 6

THE COOPERATION PUZZLE

Environmental issues provide an excellent area for Canadian and Russian cooperation and, in general, for strengthening international cooperation. Increasingly, these two neighbors will find it in their self-interest to work together on a variety of issues, the ecology of the North being perhaps one of the most important. In the past, strategic geopolitical issues have been one of the greatest concerns. The mutual fear of attack made the North an arena for possible military confrontation. Although Russia continues to carry out strategic maneuvering in the North, the threat of attack has dissipated with the collapse of the Soviet Union. Jurisdictional disputes also persist, but territorial claims may begin to take a back seat to increasing concerns over environmental degradation and pollution.⁵⁵

Changes in Russia are likely to pose an even greater risk to the environment and not just to the environment in the North. In an effort to become more integrated into the world economy, Russia is stepping up its economic activities. One of the largest targets of economic development will be oil and gas production in Western Siberia and the Arctic shelf. Such development will

⁵⁵ For more on the changing geo-political situation and on arguments for increased environmental cooperation in the Arctic see Osherenko and Young (1991).

increase the likelihood of environmental catastrophes, such as shipping accidents and contamination of northern waters. As a result, there will be a need for greater efforts to protect the fragile northern ecosystems.

There is due cause for concern over the state of Russia's environment and potential environmental damage. The environment of the North is an important ecological concern because the Arctic ecosystem plays such a crucial role in the global environment, and because it is easily affected by pollution in the global environment. The risk of cross-border pollution is not limited to the North. Nuclear disasters, for example, can affect more southerly areas. Russia occupies such a large portion of the earth's surface that environmental degradation there is not easy to ignore.

The global scale of environmental problems means that cooperative efforts are likely to take on multilateral forms. Increasingly, countries are signing international agreements to address environmental issues. Transnational regimes, forums, conventions, and the like are beginning to gather support. In the North, governments are looking not just at individual species protection but at the possibility of regimes to protect entire ecosystems. As well, the proposed establishment of an Arctic Council continues to gain momentum and attention as a means for protecting the environment.

However, it is the political will of interested countries that makes international cooperation possible. The growing interest in international regimes as a means for resolving environmental issues reflects the growing concern that single countries alone are not able to address the magnitude of ills. There are various conditions that may limit the effectiveness of cooperation. This study has pointed out that in the context of cooperation with Russia, the country's near bankruptcy and political turmoil creates added difficulties for cooperation. In many instances, the Canadian government not only has to take on financial obligations, but also has to teach the Russians how to participate effectively. As a result of obstacles to reciprocity, the political will to act may be constrained.

The political will to act does appear to exist in Canada. The Canadian Green Plan which lays out the government's action plan for the environment includes an international dimension that makes relations with Russia a priority.⁵⁶ Environment Canada together with the Department of Indian and Northern Affairs and the Department of External Affairs are actively seeking to cooperate on environmental issues despite serious financial difficulties in Russia. Progress on the Arctic Environmental Strategy coordinated by DIAND has been given positive reviews by Canadian participants in the ICC and the government of the

⁵⁶ This was stated in an interview with External Affairs official, Bruce Christie, Ottawa, September 1992.

Northwest Territories. With all three government departments, much of the work achieved so far has involved establishing priorities and setting up projects. Only recently has the Canadian government approved the funding necessary to carrying out initiatives. Concrete actions to ameliorate existing environmental damage and eliminate or reduce pollutants as a result of joint Canadian/Russian efforts have been slow to develop. However, governments on both sides of the Atlantic are taking concrete steps to control pollution. Scientific studies, information exchange, and international agreements which lay out the strategies for the reduction of pollutants are some of the first steps.

BUSINESS RELATIONS

Bilateral cooperation with Russia is not just a government to government issue either. Increasingly, the private sector and the public are becoming involved as political obstacles have been removed. Joint economic activities are of concern to this study because, not only do they represent in some cases a further risk to the environment, they are also a means for cooperating to improve environmental conditions.

The formation of private enterprise and a market system has been touted in the West as key to addressing both economic and environmental problems in Russia. Joint ventures seem poised to help improve environmental conditions. Technology and information transfer can help

provide the base needed for a more efficient and less polluting production system. The introduction of conservation techniques in industrial and consumer consumption promises to be one of the most cost-saving ways to reduce environmental damage. Private ownership, it is argued, creates the foundation for more responsible stewardship.

However, private enterprises in general are profit-oriented. Some firms profit by providing ecological consulting services, more environmentally friendly technology, or recovery and recycling services. But others are developing Russia's natural resources and producing goods with little concern for the destruction, pollution, and waste they produce. Limited funds, little ecological knowledge (both in terms of consumers and producers), ineffective regulatory systems, and underdeveloped litigation procedures, encourage abuse of and disregard for the environment. Private enterprise can be an environmental threat as well as a saving grace to Russia.

Joint ventures are having to deal with pressures within Russia which are helping reduce the opportunities to engage in environmentally harmful activities. To begin with, concerns about liability for environmental damage caused by Russian firms have often led foreign investors to invest in new, cleaner sites where modern technology can more easily be introduced. Government regulatory agencies may also

target joint ventures as a source of hard currency and thus make more of an effort to enforce fines and taxes on them.

In addition, when government enforcement in Russia has sometimes failed to respond, local and independent opposition to foreign investment has strengthened.⁵⁷ In 1989 in the Ukraine, Occidental Chemical Corporation, a subsidiary of Occidental Petroleum, decided to postpone further construction on two PVC resin plants reportedly on environmental grounds and "increasingly effective popular agitation." (Thorniley 1990, p. 258) Citing this case, an article in the Western journal, Business Eastern Europe recommends that "Money used on public relations at the local level would also not be wasted." (Ibid.) As foreign firms begin to acknowledge the significance of local opposition to developments in environmentally sensitive areas, they may see the benefits of discussing proposed plans with local people who may be affected. Devolving authority in Russia may further pressure firms to negotiate at local and regional levels to ensure support for their projects. With local people more likely to be concerned with any environmental effects of development, greater pressure may be placed on firms to appease such concerns.

57 Following the liberalization of foreign investment regulations in 1987 in the Soviet Union and the political sanctioning of *glasnost*, quite a few investment projects, particularly in the tourist industry and in the extraction and processing of raw materials, became environmentally controversial. For more examples, see Freeman 1989.

Canadian AGRA Earth and Environment International Limited is working with foreign oil and gas companies in Russia with a novel approach. AGRA is attempting to impress upon oil and gas authorities the importance of environmental impact studies and the need to consider local and indigenous concerns. While Canadian oil and gas development has experience with environmental and lifestyle concerns of local and native people, this has not been true in Russia. Canadian environmental consulting efforts in Russia are helping transfer knowledge and techniques that point the way toward significant changes from past Soviet practice.

It is premature, however, to draw conclusions on the extent that change may occur. The critical position which oil and gas development plays in Russia's economic and political transition makes it highly susceptible to near-term political pressures and profit-making pressures. Such influences are likely to undermine environmental considerations unless sources such as Russian environmental regulatory officials, native peoples, domestic and international environmental groups, foreign governments, and the world's scientific community bring countervailing pressures.

Although businesses can play a major role "in improving the efficiency of resource use, reducing environmental risks and hazards, minimizing wastes, and safe guarding

environmental qualites"⁵⁸, efforts by Canadian businesses to address environmental problems in Russia are few in number. Cost factors are often the most prohibitive reason since financing must come largely from the Canadian side. There is also limited financial support for joint ventures from the Canadian government. Ecological consulting is one area that will continue to find support because foreign investors are concerned about environmental damage liability and the Russians are also seeking such advice. In addition, the difficulties presented by political and economic instabilities and infrastructure weaknesses in Russia limit the number of interested participants in general. Pressure from environmentally concerned citizens may reduce the possibility of environmentally harmful foreign investment and foster responsible stewardship; but, unfortunately, it will not create the financial support that is so important to introducing environmentally-benign production in Russia.

The proposals under negotiation in External Affairs environmental division suggest support for the transfer of Canadian environmental technology and expertise. One example under consideration is for Canadian firms to provide expertise on building waste-water treatment plants. If such projects actually get implemented, they represent some significant actions to improve environmental conditions

⁵⁸ The United Nation's document "Agenda 21," emphasizes the need for entrepreneurship to play this role in chapter 30

GROWTH AT THE ROOTS

The growing involvement of the public in international relations represents another source for cooperation on environmental grounds. In contrast to the limited public involvement between Canada and Russia, the very strong independent organizational base in the United States has made it one of the leading proponents of independent cooperation with Russia. Grassroot support for independent cooperation may partly be the result of mistrust in government initiatives. There is also a particular fascination for some Americans with helping the former enemy. Moreover, there is an awareness of the important role foreign independent groups can play in developing civic organizations as a base for a system of democracy in Russia. Russians lack some of the political skills and knowledge necessary to a participatory democracy. Some U.S. citizens are taking the initiative to help foster these skills and the infrastructure needed to create a civil society. (Scully 1992, pp. 2,7)

Russia's proximity to Europe has aided in facilitating independent cooperation there as well. The relatively shorter distance to the East has meant that Europe is more susceptible to transboundary pollution and requires less funding to support international cooperation. It should be noted that Canadians have shown quite a bit of interest in Eastern Europe which also has very serious environmental

ills.⁵⁹ Cooperation is overall much easier with Eastern Europe than with Russia due to less severe economic and political chaos, particularly with regards to Poland, Hungary, and Czechoslovakia.

In general, it may be idealistic to believe government, industry, and independent actors are going to perceive the importance and benefits of cooperating to address environmental issues whether internationally or in their own countries. It may be a long time before trust fully develops among non-governmental organizations, businesses, and government. There is due cause to regard the prospects for increased cooperation with skepticism. Given the history of environmental neglect and the unquestioned authority and prerogative of many decisionmakers to run rough-shod over local, academic, and indigenous ecological concerns, change seems unlikely. The radicalism and combative nature of some independent groups also leads officials to distrust them and regard cooperation with caution.

However, a sense of optimism is supported by the present current of change between countries such as Russia and Canada. Where once the term ecology was not even recognized, the words spoken and written today suggest at the least a growing worldwide awareness of the importance of environmental issues. Government and business references to

⁵⁹ External Affairs, for example has a number of proposed environmental projects with Eastern Europe (See External Affairs, "Bilateral Technical Assistance Projects")

the importance of including indigenous peoples and local people in the decision-making and development processes represents a significant reversal of attitudes. For example, the joint declaration signed by President Yeltsin and Prime Minister Mulroney gave priority to improving relations between native peoples of the North and to improving the quality of the northern environment. (Vasilets Feb. 2, 1992)⁶⁰ To what extent power-sharing will occur with native peoples and other non-governmental groups remains to be seen.

A Plurality of Interests?

Canadian support both from government and business sources for the participation of independent environmental groups remains undeveloped. Scientific expertise has been tapped for some time, but relatively few academic institutes have participated in environmental cooperation. The partnership including the Canadian Ministry of Environment and Dalhousie University is one good example of how cooperation between academics, government, and industry can work to address Russian environmental problems.

Not many Canadian environmental organizations have any international outreach, let alone specific interaction with Russia. The Canadian government puts out a listing of all the organizations in Canada concerned with environmental

⁶⁰ The declaration also gives high priority to the areas of trade, financial, and investment cooperation. Economic cooperation has its merits but also has a potential to be environmentally destructive.

issues. At one point, two groups existed in Canada with a Russian orientation- the Canadian/USSR Friendship Society and the Federation of Russian Canadians, which was supposedly involved somehow in energy conservation issues. However, both have disappeared along with the Soviet Union.

Unfortunately, the environmental network in Canada was unable to provide this author with any additional sources of independent participation other than such international organizations as Friends of the Earth and Greenpeace mentioned in Chapter 5. A number of groups are cooperating with Russia on issues such as disarmament and militarism. There are likely other environmental groups in Canada that this study did not identify, but which have an international component relating to Russia.

One area of public participation in which progress can be seen in Canadian/Russian cooperation is the inclusion of indigenous peoples and communities in the North. However, much of the impetus is from the Canadian side; and, at that, international participation by indigenous peoples in general is quite limited. In terms of Canadian and Russian public participation in international cooperation, indigenous peoples represent a very small minority. Yet the changes are noteworthy.

The Canadian government's Arctic Environmental Strategy emphasizes the participation of native organizations such as the Inuit Circumpolar Conference, Inuit Tapirisat of Canada, and the Assembly of First Nations. A tenth of the federal

funds allocated for the plan are under the local supervision of indigenous people.(Ulbrich 1992, p. A4) It is a relatively recent phenomenon for "ederal officials to seek local input in setting their priorities. In Canada, it is now assumed that development projects in the North must deal with the concerns of local and native peoples.

The Canadian government has made a commitment to include indigenous peoples in any discussions dealing with the Arctic.(Siddon 1991, p. 3) Government support has helped make the presence of indigenous peoples accepted at international meetings. Thus indigenous peoples are now taking the opportunities to raise their concerns and force relevant issues onto the agendas at these meetings.

Canada's experience with cooperation on environmental issues is being carried into its citizens' actions in the international arena as well. The Soviet government had little or no experience in developing open communication and dialogue between native peoples and the various levels of government. Despite political propaganda promoting the concerned character of authority, in reality citizens have had little say in policy and economic development. However, the strengthening of international ties among native peoples and the emphasis placed by other circumpolar countries on a broad base of participation is likely to embarrass the Russian government and industry into making a greater effort to demonstrate support for native and other grassroots concerns.

Native representative organizations such as the World Council of Indigenous Peoples(WCIP) are turning to international law, agreements, and protocols for support. Agenda 21, specifically chapter 26, recognizes the role of indigenous people and their communities and emphasizes greater cooperation between various indigenous groups and government. Established under the United Nations Conference on Environment and Development in Rio de Janeiro, the declaration was signed by both Canada and Russia. The accord calls for governments to "recognize, accommodate, promote, and strengthen the role of indigenous people." Unfortunately, implementation remains a hollow concept without agreement from nations on the exact means and sources of funding.(UNCED Agenda 21: drafts 1992, p. 15)

Nonetheless, international agreements provide indigenous people with a tool to pressure authorities to take action. Through the ICC, the WCIP, and other indigenous forums, Canadians have been reaching out to Russian indigenous peoples to inform them of documents such as Agenda 21 which concern them. Despite the distance between these countries, the financial and material constraints, and the lack of representation, Russian indigenous groups are being enabled to hold authorities more accountable.

Despite the fairly recent government recognition of indigenous groups as important participants in international cooperation, in general indigenous peoples remain poorly

represented. The ICC represents the Inuit people, most of whom live in North America. Russian Inuit are a very small percentage of the various indigenous groups in the country. The participation of these other groups has had little if no support. Moreover, just how representative the ICC and the Association of the Aboriginal Peoples of Northern Russia are of local concerns is not clear. Such non-governmental groups are criticized for consisting of elites who do not necessarily personify grassroot concerns.⁶¹ Due to the questionable broad-based representation of indigenous peoples, it is arguable that international efforts are not incorporating a plurality of indigenous concerns.

Explanations

Why are not many independent environmental groups involved specifically between Canada and Russia? To answer this question, first of all it must be clear that support for independent participation most often comes from domestic sources. In other words, it is highly unlikely that Canadian government departments or businesses are going to support Russian public participation or that Russia will support Canadian ones. Interfering in domestic politics is something in which neither Russia nor Canada wish to engage.

In some cases, if a Canadian firm is operating in Russia then it is possible that local concerns will be taken into account. The one example in this study is the Canadian

⁶¹ Interview with Gail Osherenko, Arctic and international law specialist, August 1992.

firm AGRA which claims to support local participation in Russia. AGRA cites concerns over devolving power in Russia and an awareness of the benefits of constructive involvement of local and native people in projects. In this case, a foreign firm perceived there were advantages to cooperating with local people, although it is not clear to what extent and how these people are actually involved. Such examples appear to be the exception. AGRA representatives claim most foreign firms in oil and gas development do not recognize how local participation can minimize the negative impacts of industrial development.

Canadian government departments including External Affairs, Environment Canada and Indian and Northern Affairs all report a commitment to tap the private sector including businesses, universities, and public organizations to support international efforts. However, at this point few groups with environmental orientations are included. There are various possible explanations for the minor participation of independent environmental groups. Canadian government officials may be concerned that supporting independent environmental cooperation may serve to agitate rather than educate people or that such efforts would be perceived negatively by the Russian government. Of course, one may question whether or not the Canadian government could support international efforts by Canadian environmental NGOs without appearing to encourage anti-Russian actions. In addition, Canadian officials may

perceive other agents as more capable or more effective in accomplishing negotiated agreements. However, the government is still developing its environmental cooperation strategy with Russia and opportunities for independent participation are likely to appear.

Concerns about efficiency may lead to greater participation of organizations that can offer such benefits as ecologically related expertise, wide networks, and low overhead costs. For example, the inclusion of Dalhousie University in a partnership with government and business is partly the result of Dalhousie's longterm experience with Russia. Dalhousie provides established networks and expertise that make their participation useful and possibly more cost-effective than a purely bureaucratic approach.

Governments and businesses also worry about their public image, and public pressure can affect change. Concerns about public image may lead governments and businesses to at least exhibit an attempt to incorporate the public in decisions that affect them. To help improve the reputation of government and business actors as concerned members of society, cooperation with independent actors may be promoted.

The limited participation of independent environmental groups must also be seen from the grassroots level. Most environmental groups in Canada are focused on domestic issues. Few have the capacity or even the interest to be engaged in cooperation with Russia. Furthermore, the

opportunity for these independent groups to participate has only fully developed in the past five years. There are other recent initiatives in Eastern Europe and in other Soviet successor states. For example, Canadian citizens have been active in efforts to deal with the consequences of Chernobyl such as providing vacations for affected children from Byelorussia. However, cooperation with Russia is an area which is still in the process of being developed.

Despite the fact that indigenous peoples are not specifically environmental groups, indigenous participation has become an important part of international environmental efforts. There are a number of reasons why indigenous peoples have become more involved in international environmental cooperation than other groups. In recent times, a shift in attitudes has resulted in a recognition of the important link between northern people and the environment in which they live. Indigenous peoples have helped bring about this shift by demanding that their concerns be taken seriously and by publicizing the problems posed to their means of living and their lives. Indigenous peoples have resorted to legal actions, embarrassing authority figures, and physical confrontation as a means of bringing about change. The small size of the indigenous population in the North of Canada and Russia has also made the need to band together even more important.

This study has focused more on cooperation from the Canadian point of view. The climate for international

cooperation between government, business, and independent actors in Russia is quite different. The creation of international partnerships between government and business is playing an important part in economic and political transformation and also in efforts to address environmental problems. However, environmental protection industry and services such as environmental consulting and waste treatment are poorly developed in Russia. In addition, independent environmental groups are struggling to survive in difficult financial and material conditions. The Russian government hardly has the funds to support their participation, let alone donors from the private sector.

The one Russian organization highlighted in this study, the Socio-ecological Union, illustrates some of the problems faced by independent participation in Russia. Even though an organization like SEU with wide-spread networks has managed to grow, it still lacks the sophistication and professionalism needed to make it appealing to government officials. Although many members of SEU have a scientific background, they lack experience needed to conduct environmental impact studies as they are done in the West.

In conclusion, there are basically three reasons for Canadian government, business, and independent actors to consider greater independent participation between Canada and Russia. First, some groups can act as a means for monitoring and seeking compliance by groups and individuals of international environmental laws and standards. Second,

some groups can offer expertise, grassroots connections and networks that may be more effective than policy actions carried out from above. Third, Canadian independent groups can help bolster the weak and under-resourced environmental groups and expertise in Russia⁶² and foster the development of a democratic society. Broadly speaking, perhaps most important is the recognition that "public interest groups help generate the information that drives social change" as Lester Brown, editor of the book on the environmental State of the World 1992, writes. (p. 187) A world faced with potentially immense problems needs to mobilize the public interest community as a source for radical change.

NEW DIRECTIONS

The Canadian government does recognize the importance of international cooperation with Russia on environmental issues. A few Canadian businesses and independent groups are also seeking to work with Russia. Based on what efforts are currently ongoing, there are three areas in which environmental assistance should be emphasized and developed more. There needs to be more attention paid to environmental education, pollution abatement and low waste technology, and the roles of indigenous peoples and non-

⁶² Here I refer not only to the lack of resources for environmental organizations but also for the scientific community. See Alexander Dinkin, "Who is saving basic science (trans.)," Nesavisimaya Gazeta, July 15, 1992, p. 6 for more on the desperate financial conditions in the Russian Scientific community.

governmental organizations in preventing and ameliorationg environmental damage.

Education should be an important part of international efforts to aid Russia. While bilateral scientific and technical efforts are laudable, there is a need in Russia for partnerships in environmental education and management. One existing example of such an effort exists in the United States. The Tennessee Valley Authority (TVA), Rostov State University (in Russia), and Citizen Exchange Council (CEC) are working together "to improve the quality of teaching, research, and management on environmental issues." (CEC brochure) This project seeks to incorporate a variety of organizations including universities, government agencies, research institutes, schools, religious groups, businesses and philanthropic institutions. Significantly, the project not only lends a hand to the reform process in Russia, but offers people the opportunity as CEC claims "for tremendous personal and professional growth and a true sense of accomplishing something worthwhile." (Ibid.)

Low-waste and pollution abatement technology will play a crucial role in Russia's ability to transform her outdated, polluting industry. Retrofitting factories and technology changes are likely to receive greater support from Russians given that they reduce the number of jobs lost to environmental protection goals. (Feshbach 1992, p. 238) 63

63 Feshbach refers to a poll in which fewer than 1 in 10 favoured closing polluting enterprises, while the use of

In addition, the cost-saving benefits of introducing such technology make it an attractive opportunity for environmental assistance. A current example of collaborative attempts among the energy industry, governments, and research and training institutes is a project organised by the United Nations. The Energy Efficiency 2000 program is working to retrofit three cities in Russia with highly productive and environmentally-benign technology. (Petroleum Economist June 1992, p. 26) Canada has yet to become engaged in such a project.

Furthermore, there remains a need for broader representation of those who are affected by environmental problems and who have relevant information. The opportunity has not really been taken yet to find a means for a variety of environmental groups to participate in international cooperation. In order for governments to claim they are listening to indigenous and non-governmental concerns, an effort must be made to find and support groups which can truly represent grassroots' concerns.

Improved efforts to make relevant information public also need to come from independent groups. International organizations such as the International Labour Organisation and the U.N. and European Commissions on Human Rights depend on information from NGO's. Such information plays a significant role in identifying violators. (French 1992, p

purification devices and converting production to less polluting activities was supported by 55 percent.

164) It appears that few non-governmental groups in Canada have made it a priority to provide expertise and act as a source of compliance in cooperative efforts with Russia.

CONCLUSION

The state of the environment and environmental protection in Russia is starting to get more attention from the world. During a press conference with a European Community (EC) commission in Russia, a correspondent from the newspaper Izvestiya asks why is it that in the EC's technical assistance program from last year and this year for Russia not one project is ecologically oriented. The authorities acknowledged that not enough attention had been paid to ecological questions and promised a serious change in that direction. (Smirnov 1992, p. 2) An article written in the American business periodical Fortune on "The New Soviet Threat: Pollution," reports that foreign countries are realizing the importance of environmental assistance to the former Soviet Union and that the topic was one of discussion at an economic summit among the world's leading industrial nations in July 1992. (Hofheinz 1992, p. 110) The threats posed by environmental degradation and pollution are ones the global community cannot ignore even though the task comes with a daunting bill.

Canada's efforts represent a significant initial step toward addressing problems, although there remains a great deal to be done. The relatively limited inclusion of public environmental organizations and indigenous peoples,

particularly on the Russian side, affects the content and possibly the effectiveness of cooperative efforts. Both Canada and Russia are developing partnerships with industry and scientific resources. The inclusion of these actors with relevant information are likely to improve the effectiveness of ameliorative efforts. The inability of Russian independent groups to participate, however, may mean that efforts will continue to reflect the priorities of government and industry. Russian government priorities currently lie more with economic development than environmental protection, while the Canadian government is more concerned about environmental issues as well as economic problems. As a result, the impetus for effective environmental initiatives is coming more from Canadian concerns, particularly those as articulated by the Canadian government, than from the Russian government or from Russian grassroots groups.

At present, there is hope that public participation will become more of an active element in international cooperation. The convening of indigenous peoples from Russia and Canada attests to that. However, as long as obstacles to public participation persist, cooperation efforts will continue to reflect government priorities and those of influential pressure groups.

This study is by no means exhaustive but does give a fairly broad picture of the current thrusts in Canadian/Russian cooperation on environmental issues

Independent actors are an emerging force on the international scene, and clearly there will continue to be a need for studies that not only document existing conditions but which further examine how cooperation between all relevant actors can facilitate effective action to address environmental concerns.

Additional research is needed to examine how cooperation can be most cost-effective. In other words, what initiatives can offer environmentally helpful results with the minimum amount of inputs. For example, low-cost grassroots programs can reinforce waste-reducing habits such as composting and bottle recycling that already exist in Russia.

These are exciting times, as Russia opens up her borders and seeks to participate as a respected actor in international cooperation. Questions remain as to how developing conditions in Russia together with foreign pressure may lead to improved public access to information, and more broad-based representation in decision-making processes. For all actors in international cooperation, developing a sense of trust and recognizing shared values will be crucial for future efforts to succeed.

APPENDIX I

Interview List

(name, affiliation, place, date)

1. Dr. Gordon Beanlands, Dalhousie University, co-chair of the Working group on Environmental Policy within the Canada-Russia Mixed Commission on Environment, (Halifax, August 1992).
2. Peter Besseau, Environment Canada, Russian affairs specialist in the international division, (Ottawa, July and August 1992).
3. Tom Brodhead, Canadian Council for International Cooperation, executive director, (Ottawa, August 1992).
4. Bruce Christie, External Affairs, project officer in the environmental division, (Ottawa, September 1992).
5. Rodriguez Contreras, World Council of Indigenous Peoples, international affairs specialist, (Ottawa, August 1992).
6. Nancy Doubleday, Inuit Circumpolar Conference, (Ottawa, July 1992).
7. Terry Fenge, Canadian Arctic Resources Committee, executive director, (Ottawa, August 1992).
8. Bonnie Gray, AGRA Earth and Environment International Limited, Russian relations specialist, (Calgary, July 1992).
9. Robert Hornung, Friends of the Earth, (Ottawa, August 1992).
10. Marat Khabibullov, AGRA Earth and Environment International Limited, Moscow representative, (Portland, Oregon, July 1992).
11. Gail Osherenko, Dartmouth College Arctic Institute, Arctic and international law specialist, (Vermont, August 1992).
12. Michael Robinson, Arctic Institute of North America, executive director, (Calgary, August 1992).
13. Walter Slipchenko, Arctic and international affairs specialist, (Ottawa, July 1992).
14. Kirsten Suokko, National Resource Defense Council, environmental consultant, (Washington D.C., August 1992).

15. Bruce Steen, External Affairs, project officer for the Task Force on Central and Eastern Europe. (Ottawa, July and August 1992).

16. David Stone, Indian and Northern Affairs, project officer for the Arctic Environmental Strategy plan. (Ottawa, July 1992)

17. Vladimir Trifonov, Russian Ministry of Ecology and Natural Resources, West Siberian development specialist. (Moscow, August 1992).

18. Peter Williams, Carleton University, director of the Geography department. (Ottawa, July 1992).

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