Negotiation-Based Approaches to the Settlement of Environmental Disputes in Canada

by

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Bargaining and negotiation have always been involved in settling environmental disputes in Canada but it has only been in recent years that this has been explicitly recognized and attention has turned to ways in which they could be better utilized in the governance of natural resources (Dorcey, 1986). This paper examines the nature and scope of environmental disputes, the governance processes that have been used in managing environmental resources, and the negotiation mechanisms that could potentially be used to solve disputes and how they fit into governance processes.[1] We then summarize 32 case studies of negotiation for resolving environmental disputes in Canada and determine what factors might contribute to negotiation success.[2] Finally, we suggest future directions for research and guidelines for continued experimentation with negotiation-based approaches in Canada.

1. This paper extends earlier analyses of bargaining in the governance of natural resources. For further information, see Dorcey (1986).

2. This information is taken from Dorcey and Riek (1987), which provides a more detailed analysis of Canadian negotiation experience in settling environmental disputes.

The Nature and Scope of Environmental Disputes

Substantive and Process Issues

Environmental disputes arise as both substantive and procedural issues but the two are often intertwined. Within existing institutional arrangements for the governance of natural resources in Canada substantive disputes arise about four sets of issues:

- *Project development and resource use effects*, such as the downstream effects of treated versus untreated municipal waste discharge on a salmon fishery or the impact on a wilderness environment of scientific research and recreational uses.
- *Multiple use of resources and areas*, such as the use of forests for timber and wildlife production or the use of the resources in a region for a diversity of industrial and recreational developments.
- *Regulations, policies and legislation*, such as a regulation relating to the maximum concentration of a material allowed in a waste discharge, the policy of the government with regard to the development of new energy sources and energy conservation measures, or the content of new toxic materials control legislation.
- *Resource ownership and jurisdiction*, such as claims for aboriginal title or federal and provincial claims to offshore resources.

Environmental disputes also arise as procedural disagreements about who should be involved, how and when in making decisions about these substantive issues. Thus in the example of the dispute about the downstream impacts of the municipal waste discharge, there may be disputes about: which interests and experts should be involved in assessing the impacts and the ways to mitigate them; which people should be involved in joint task-forces and/or public hearings; when the interested parties and/or experts should come together; and who should be involved in determining compensation for fishery losses.

Not only are substantive and procedural disputes often intertwined but in specific instances all four types of substantive disputes might arise. For example, a proposal to develop an offshore oil well could give rise to disputes about the environmental effects of the project, implications for future uses of the coastal area, the adequacy of construction and operation regulations, the relationship to energy development policy, and ownership of offshore resources.

Increasing Frequency of Conflict

Increasing demands, complexity and uncertainty have in recent years generated increasing conflict in the use and governance of natural resources. Demands for the use of natural resources have intensified and diversified greatly over the last two decades. Development has spread into the north and the coastal zones of the Arctic, Atlantic and Pacific, and settlement has expanded throughout Canada. Congestion has increased and expansion has generated conflicts both between and within resource sectors and areas of the country. For example, conflicts arise between the forestry and fishery sectors over habitat damage, within the sectors over the allocation of timber and fish supply, and between areas over the siting of new mills and salmon enhancement facilities. Development has greatly increased the interdependence of both bio-physical and socio-economic systems, as has been starkly illustrated by the emergence of toxicity problems in the Great Lakes and the reverberations from oil price changes. Recognition of this growing complexity has been accompanied by the realization that there is only limited knowledge of how bio-physical and socio-economic systems behave and that there will be continuing uncertainties about their behaviour. Together, increasing demands, complexity and uncertainty have greatly increased conflicts in recent years.

Elements of Conflict

Environmental disputes are likely to include elements of cognitive, value, interest and behavioral conflict. Although in a particular situation it is difficult to separate these elements completely, major differences can usually be identified.

- *Cognitive conflicts* are rooted in different understandings of the facts, as for example, when the environmental interest group and the hydroelectricity authority disagree on how much land will be flooded by the new reservoir.
- *Value conflicts* stem from different preferences about the outcome. Thus while there may be no disagreement about the size of the reservoir, the environmentalists may disagree with hydro about the desirability of forgoing agricultural and wildlife production for electricity production.
- *Interest conflicts* occur when there are disagreements about the distribution of the costs and benefits. Hence, although the dispute over the value effects of developing the reservoir might be resolved there may still be conflicts over who should incur the costs and who should reap the benefits and to what extent.
- *Behavioral conflicts* are rooted in the personalities, experiences and circumstances of the interested parties. Even though all parties desire a settlement of the dispute, it may elude them because of the variety of behavioral factors that influence their interactions. Thus despite the best efforts of the people in hydro, it may initially prove to be impossible to settle the dispute because the president of the environmental coalition is an aggressive lawyer, who feels that she was tricked during discussions over a previous reservoir development, and believes that the government has initiated discussions in order to diffuse the success of their media campaign and threatened court case.

Evolution of Decision-Making in the Governance of Natural Resources

Modes of Decision-Making

In *principle* three modes of decision-making used in settling environmental disputes can be distinguished: authoritative, consultative and negotiative.

- *Authoritative decision-making* occurs when an individual or organization makes trade-offs alone and imposes the decision on others. For example, the director of the pollution control agency orders the municipality to install a treatment plant; the environmental assessment board approves construction of the dam; and the court rules that the native Indian band has rights to the fishery that must be recognized by the forest company proposing to log the valley.
- *Consultative decision-making* occurs when an individual or organization consults with other individuals and organizations before making the trade-offs and imposing the decision. For example, the ministry of environment holds public hearings to obtain comments on draft regulations before they are adopted; the environmental monitor for the project discusses the proposed relocation of the road with the company's consultants before responding to their request; and the minister appoints a committee to advise him before adopting a multiple-use plan for crown lands.
- *Negotiative decision-making* occurs when individuals or organizations make the trade-offs amongst themselves and adopt an agreement. For example, the housing developer and the neighboring farmer agree to jointly fund the construction and landscaping of a berm around the site; the municipality, the toxic waste disposal company and the residents' association negotiate an agreement to establish a compensation committee to settle any further accidents; the provincial and federal governments negotiate an accord that establishes a regime for regulating the development of coastal resources.

Decision-Making Processes

In *practice* all three modes of decision-making are used in the governance of natural resources. As a response to the increasing conflicts there has been growing interest in and explicit use of consultative and negotiative modes of governance:

- *Referrals Processes* have been established within government to insure applications for leases, licenses and permits (e.g., a crown foreshore lease, a tree farm licence, or a waste management permit) are circulated to other interested agencies to provide early information about a proposed development and the opportunity to comment on it.
- *Guidelines* have been developed to both detail procedures for the referral (e.g., information to be included, who is to receive it, types of response, and time allowed) and to provide substantive standards and criteria to be applied in making decisions on leases, licences and permits (e.g., minimum conditions to be met by discharges to waters used for water contact recreation).
- *Task Forces* have been struck on numerous occasions to provide temporary means to facilitate more intensive discussions between affected interests. They range in type from small groups within a government agency (e.g., to determine the response to a new kind of project), through larger intergovernmental groups, which may include non-governmental interests (e.g., to settle multiple use conflicts in a small valley), to public inquiries (e.g., to propose policies for developing uranium mining).
- *Impact Assessment Processes* have been created to provide permanent and more formal procedures for reviewing various types of projects, usually including provisions for public hearings. For example, the Federal Government and the Province of Ontario have established processes for selected government projects, and the Province of British Columbia has separate processes for reviewing mines and energy projects.
- *Planning Processes* have been developed for both resource sectors and areas to provide a context for specific developments. Single sector plans may include comprehensive consideration for whole provinces (e.g., provincial forest plans in

British Columbia), or only smaller areas (e.g., regional plans for water resources in many provinces). In some cases, usually sub-provincial areas, several related sectors are integrated (e.g., strategic environmental plans for water, fish, wildlife and air resources in B.C.). On other occasions plans are developed for regions, again usually smaller areas, that integrate all uses (e.g., Ontario's strategic regional land use planning).

- *Interagency Committees* have been established as a continuing means to formally bring together governmental interests in resources governance (e.g., the provincial Interdepartmental Land Use Committee in Newfoundland, or the Management Committee for the Fraser River Estuary composed of federal and provincial agencies, regional districts, municipalities and Indian bands).
- *Special Purpose Organizations* have on occasion been created to provide permanent bodies with a mandate for a variety of resource interests in a specific area to formally act together (e.g., the Islands Trust for the Gulf Islands in B.C.).

The last twenty years has thus seen remarkable innovation in creating processes that utilize consultation and negotiation within the traditional authoritative framework of natural resources governance and that are designed to provide more comprehensive, anticipatory and strategic approaches. They have become progressively more permanent and formal. Slowly, ideas have emerged as to how they can be nested together in a more productive hierarchy of mechanisms. Only twenty years ago, a proposal to build a dam would have been largely considered through ad hoc processes with relatively little formal consultation among the interested parties either inside or outside of government. Today, it would likely be routed through various referrals and guidelines into specific impact assessment processes; probably involving a variety of task forces and being considered in the context of various sectoral and area plans; likely being submitted to some judicial or quasi-judicial board for final adjudication; and through these processes many different interests would be consulted.

However, one process that has not changed is the reality of the bargaining and negotiation that goes on all the time in the governance of natural resources. No matter what *in principle* might be the mode of decision-making, *in practice* there always has been and always will be bargaining and negotiation. Snapshot views of decisions being made by the courts, cabinet, legislature, boards and bureaucracy give a false impression of authoritative decision-making. When the dynamics of the decision-making are observed and seen in their longer term context, then the ubiquitous presence of bargaining and negotiation becomes evident. Authoritative decisions are then seen as points in bargaining and negotiations that are implicit and unfolding over longer time periods.

This broader perspective has been dramatically evident in recent years with the federal and provincial governments, including Parliament and the Supreme Court of Canada, negotiating a new constitution and bill of rights. Those agreements are now being further refined by interpretations in the courts and new legislation, that in turn provide the context for the continuing evolution of the decision-making mechanisms employed in resource governance. From this perspective the current resort to the courts by many native Indian bands involved in environmental disputes (e.g., logging on Meares Island and twin-tracking of the CN railroad through the Fraser-Thompson Canyon) is a strategy for supplementing and complementing short-term negotiations in administrative arenas with longer term actions in judicial and legislative arenas.

Although the scope of bargaining and negotiation is broad and occurs implicitly in the Canadian governance system, the focus of our analysis is on a smaller scale. Here, we are primarily concerned with the explicit use of negotiation, in which governments actively seek ways to reach negotiated solutions instead of exercising their legitimate powers to make

authoritative decisions. We need to consider the types of negotiation mechanisms that might be used and their role in governance processes.

Potential Negotiation-Based Approaches

Potential Mechanisms

A wide variety of mechanisms have been discussed in the North American literature that could potentially be employed in negotiation-based approaches to settling environmental disputes. In this section these mechanisms are defined and related to each other before considering how they could potentially be used in the emerging systems of governance and experience with them in Canada to date.

Negotiation is a process whereby two or more parties attempt to settle what each shall give and take, or perform and receive, in a transaction between them (Rubin and Brown, 1975 p.2). While *bargaining* is often defined likewise and used synonymously, for many people it does not have the more principled connotations of negotiation. Bargaining is more readily associated with the image of people chasing bargains, throwing their weight around, taking partisan positions, scheming for advantage, horse-trading, back-scratching, log-rolling, jockeying, threatening, deceiving, lying, and bluffing (Lindblom, 1965). In contrast negotiation more easily conjures images of people searching for agreement, through courteous exchange, reasoning, persuasion and forming alliances. It is for these reasons that we have emphasized the ubiquitous practice of both bargaining and negotiation.[3]

[3] To make clear when we are speaking about the intentional and overt use of a negotiation based approach as opposed to the common and often implicit practice of bargaining and negotiation, we will refer to the former as the "explicit" use of negotiation.

Potential mechanisms can be placed on a continuum of approaches from unassisted negotiation to arbitration reflecting the increasing extent to which they utilize a *third party* to assist in the process (Susskind and Madigan, 1984). However, the same terms are often used differently by different authors. Below, a set of definitions are presented that will be used in this paper and reference is made to authors who use the same or closely related terms in the same way.

This third party may also be called an *intermediary* (e.g., RESOLVE, 1978), *intervenor* (e.g., Raiffa, 1982) or *neutral* (e.g., Lawson, 1985). Usually they are idealized as being independent (e.g., Jeffery, 1984: 271), non-partisan (e.g., Susskind and Ozawa, 1983: 256) or impartial (e.g., Raiffa, 1982: 23). But it is important to recognize that there are situations in which this is not explicitly the case, and they are characterized as being political rather than apolitical (e.g., Carnevale, 1986: 358).[4] Through the various forms of conciliation, facilitation, fact-finding and mediation, the continuum also reflects increasing efforts to manage the process through which information and feelings can be shared and accepted freely, creative brainstorming can be done in a non-threatening environment, and feedback can be given without accusation or judgement (Susskind and Ozawa, 1984: 181). The mechanisms on the latter end of the continuum become increasingly appropriate as greater difficulty is encountered in finding a consensus.

- *Conciliators* attempt to assist negotiators in searching for accommodations, usually proceding unilaterally, without necessarily having the agreement of all the parties involved (Haussmann, 1986:2); the term is sometimes associated with crisis situations (Lawson, 1985).
- *Facilitators* at a minimum assist the negotiating parties in coming together, taking care of the logistics of meetings and possibly the implementation of their agreements,

4. Kressel and Pruit (1985: 189) make a similar distinction in separating "emergent" from "contractual mediators".

but stopping short of getting involved in the actual negotiation (e.g., Raiffa, 1982: 22; or *convenors*, Cormick, 1985: 3).[5]

- *Fact-finders* usually have technical expertise relevant to the negotiation and use it to investigate and analyze the issues (e.g., Haussmann, 1986). *Problem-solvers* explicitly go on to identify potential ways to resolve the issues looking for possible joint-gains and opportunities to avoid the necessity of compromise (e.g,. Raiffa, 1982). *Joint fact-finding* and *collaborative problem-solving* occur when the fact-finders and problem-solvers undertake the task directly with the negotiating parties (e.g., Susskind and Madigan, 1984).
- *Mediators* often meet first separately, and then jointly with the interests involved, help each to understand the others' objectives, point out areas of agreement, and then encourage and assist them to settle their differences through compromise and negotiation (e.g., Talbot, 1983: 1). In doing this it is their function to develop doubt, erode expectations, reinforce reality, motivate momentum, keep the parties communicating, and create confidence in reaching a resolution (Greenbaum, 1986). Thus mediators usually are at least as active as the preceding types of third parties, likely employ conciliation, facilitation and fact-finding, but may be considerably more active. "Passive mediation" (also called "traditional mediation" or "assisted negotiation") is only concerned with process issues, such as being fair and unbiased (Susskind and Madigan, 1984: 182). It is distinguished from "active mediation" (or "negotiated mediation") in which there is not only concern with the process but also the quality of the outcome including results that are viewed as fair by the larger community, are reached efficiently, and endure.
- *Arbitrators* listen to the arguments that can be made by disputing parties and then give their conclusions (e.g., Greenbaum, 1986). Whereas all the preceding

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5. A more active facilitator suggested by Raiffa (1982: 23) would be a *rules-manipulator*, a third party that has the authority to alter or constrain the process of negotiation.

mechanisms are designed to assist the parties in reaching an agreement voluntarily, in arbitration some form of adjudication by a third party is involved. However, in contrast to the adversarial characteristics of judicial and quasi-judicial proceedings, adjudication by an arbitrator can be in the more constructive vein of a mediator (Susskind and Madigan, 1984:181). Like mediation, arbitration may be imposed on the parties by an authoritative individual or organization, or they may agree to it voluntarily. In the case of "binding arbitration", the negotiating parties must submit to the judgement of the arbitrator, and in "non-binding arbitration" they may accept it or reject it (e.g., Susskind and Madigan, 1984: 183).[6] In some instances after hearing the arguments, the arbitrator might attempt to mediate between the parties before imposing a decision (e.g., Raiffa, 1982: 23). On other occasions, disputants may agree in advance to the use of a *superneutral* who will first attempt resolution through mediation and, when that fails, undertake arbitration (e.g., Greenbaum, 1986).[7]

Modes of Decision-Making and the Potential Mechanisms

To analyse how the various negotiation mechanisms have been and might be used in settling environmental disputes in Canada, it is necessary to relate them to the potential modes of decision-making so that the context of their use is explicit. This is necessary because negotiation-based approaches can be used not only in negotiative but also in authoritative and consultative decision-making modes. To assist in differentiating these contexts, we will

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6. One variant on non-binding arbitration is Raiffa's (1985) idea of a *contract-embellisher*, a third party who would review agreements after the parties have reached them and make suggestions for improvements which they would be free to accept or reject.

7. Four more specific terms that are important in considering environmental disputes have emerged as a result of applying these mechanisms in particular situations. *Policy dialogues*, in which representatives of disputing parties have settled disputes about environmental policies, have been undertaken using facilitators and mediators (Murray, 1978). *Regulatory negotiations* have been employed to explicitly utilize negotiations in establishing environmental regulations and to avoid disputes after the rules are established (McMahon, 1985: 4). A *mini-trial* is in essence a staged court hearing presided over by a panel of key party representatives and a neutral advisor who, prior to the start of negotiations, render advisory opinions on legal matters affecting negotiations (Henry, 1985). *Court-appointed masters*, used to assist judges in the U.S with complex cases, may act as fact-finders, problem-solvers or mediators (Susskind, 1985).

call them Type 1, Type 2 and Type 3, respectively. Type 1 refers to negotiation in a negotiative context, Type 2 refers to negotiation in an authoritative or intergovernmental context, and Type 3 refers to negotiation in a consultative context:

- Type 1: negotiation is used to *reach an agreement* among parties, at least one of whom is private or non-governmental. For example, a forest company and an environmental protection agency negotiate an agreement on the size and location of log booming grounds; a landfill operator, a government regulatory body, a municipal council and citizen groups negotiate the terms for closing a landfill; a gas pipeline company negotiates with a fishing club on the construction methods to be used in crossing a stream; or a municipal council and a hydroelectric utility negotiate a compensation agreement for the siting of a nuclear energy plant.[8]
- Type 2: negotiation is used to *reach an agreement* among parties, all of whom are in governmental departments or agencies. For example, two provincial governments negotiate the terms for managing an interprovincial river; or a province and the federal government negotiate offshore oil and gas management rights and revenue-sharing arrangements.
- Type 3: negotiation is used to *reach a recommendation* or produce a consultative document that the parties, who may be private or governmental, present to some government body. For example, government, industry and interest group representatives from the mining and forestry sectors negotiate a joint response to proposed new environmental protection legislation.

The key distinction between an agreement and a recommendation is that, in the case of an agreement the parties have some guarantee that any required government approval or

8. For the purposes of the present analysis we have treated crown corporations such as the hydroelectric utility, and native Indian bands as private or non-governmental because in general there role in environmental disputes is usually more like these parties than government. Similarly, elected town councils are treated as government, while citizen groups are considered to be non-governmental or private.

sanctioning of the agreement will be given. The parties, therefore, are fairly certain that implementation of the agreement will occur. In contrast, in the case of a recommendation the parties have no guarantee that their recommendations will be implemented by a government body; the government body only agrees to consider the parties' suggestions (Bingham, 1986: 7 uses a similar distinction).[9]

Negotiation in each of these contexts could include a decision to use conciliation, facilitation, fact-finding, mediation or arbitration. For example, negotiations between the forest company and environmental protection agency could be assisted by a mediator; negotiations between agencies concerned with the interprovincial river could be facilitated; and fact-finding could assist the mining and forestry interests in their negotiation.

We can also envisage negotiation taking place at the project, multiple use, policy and rights levels. At the project level, municipal councils and interest groups might negotiate the siting of a new landfill. At the multiple use level, industry, environmental groups and government could negotiate a management plan for an estuary. At the policy level, government, industry and interest groups could negotiate amendments to pollution control legislation. And, at the rights level, the U.S. and Canadian governments might negotiate coordinated development of an international river.

The scope of negotiations can vary at any of these levels. Negotiation might be used to settle comprehensive issues or to settle sub-components only. For example, project level negotiations over a hydroelectric development might encompass siting, construction planning, impact prediction, impact monitoring and mitigation, compensation measures, etc;

9. In practice, it is sometimes difficult to be sure whether to classify a negotiation as Type 1 (agreement) or Type 3 (recommendation) because at the time of negotiation the degree of commitment to implementation is unclear.

alternatively, the negotiations might be restricted to establishing compensation and mitigation procedures only.

Experience with Negotiation-Based Approaches in Canada

Negotiation has been extensively used in settling environmental disputes in Canada. There has, however, been relatively little analysis of this experience and what has been undertaken is fragmented among a variety of substantive topics (such as environmental mediation, international relations, planning, water resources management, etc.) and examined from diverse disciplinary-professional perspectives (e.g., lawyers, political scientists, economists, anthropologists, geographers, planners).

The use of negotiation in settling environmental disputes has been primarily associated with what is referred to as "environmental mediation". Most of the Canadian writings on environmental mediation are concentrated in four sets of materials: Haussmann (1982); Shrybman (1983, 1984); *Canadian Environmental Mediation Newsletter* Nos. 1-4 (1986-87); and *Resolve* No. 18 (1986). To date, there has been almost no theory development by Canadians and almost all writers have drawn on the more extensive United States literature for theory and principles. After the initial review by Haussmann (1982), only Shrybman (1984) has undertaken a comprehensive review of the United States literature and begun to relate it to the differences in the Canadian context. Sadler (1986) highlights the differences in political culture and institutional arrangements while providing a broad perspective on Canadian experience with environmental mediation for a U.S. audience in his introductory essay for the special issue of Resolve (No.18). Write-ups of the Canadian experiences are generally brief, largely descriptive and any analysis tends to be implicitly

based on the principles in the U.S. literature. The one major exception to this is the five detailed case studies undertaken by Shrybman (1983).

Our research into the use of environmental negotiation in Canada revealed 32 case studies, taken largely from the Canadian literature on environmental mediation and a few telephone interviews.[10] The cases we have identified constitute, we believe, most of what is still a relatively small body of analysis. In some instances we believe we have been reasonably comprehensive in identifying where negotiation-based approaches were employed; in others we know that there is a great deal of experience and that we have only identified examples of it. The following summary describes the kinds of issues being negotiated, the parties involved, the levels of the disputes, the governance contexts, the negotiation mechanisms used, and the agreements reached.

The Cases Identified

We have examined 32 cases in which negotiation-based approaches for settling environmental disputes were explicitly used in Canada (see Table 1). The characteristics of each of these cases are summarized and compared in Appendix 1.[11] The cases show that negotiation-based approaches have been employed in settling environmental disputes:

- involving water and energy resource developments, and air, land and water pollution;
- at all levels in the hierarchy of governance of natural resources; and
- in all of the provinces of Canada.

10. For a complete description and analysis of these cases, see Dorcey and Riek (1987).

11. The sources of information for the analysis are listed at the end of the appendices. Because of the limitations on information available and insufficient time to undertake new research there are some gaps in the analyses. In addition, there may well be errors in our interpretations. There has not been time to circulate the analysis to knowledgeable participants for their review. We would greatly appreciate any assistance in correcting and refining the analysis.

TABLE 1
AN OVERVIEW OF CANADIAN NEGOTIATION EXPERIENCE

	SUBJECT	*LOCATION*	*# OF CASES IDENTIFIED*	
PROJECT LEVEL	Energy Developments	Alberta	4	
		Manitoba	1	
		Ontario	2	
		B.C.	1	
	Landfill Siting and Effects	Ontario	5	
	Railway Developments	BC/Alberta	2	
	Air Pollution	Ontario	1	
	Water Pollution	Ontario	1	
				17
MULTIPLE USE LEVEL	Water Resource Management	Ontario/Quebec	1	
		Manitoba/Ontario	1	
	Estuary Management	B.C.	2	
				4
POLICY LEVEL	Sulphur Recovery Guidelines	Alberta	1	
	Toxic Chemicals Management	Canada	1	
	Bottle and Can Recycling	Ontario	1	
				3
DOMESTIC RIGHTS LEVEL	Inter-provincial Water Resources Management	Western Canada	2	
	Offshore Oil and Gas Ownership, Pricing and Taxation	Atlantic Canada	2	
				4
INTERNATIONAL RIGHTS LEVEL	International Water Resources Management	Canada	1	
		Western Canada	2	
		Central Canada	1	
				4
		Total Number of Cases		32

The project and policy level cases are explicitly associated with the emerging Canadian experience and literature that is usually identified as "environmental mediation". On the other hand, the multiple use, domestic rights, and international rights level cases are not generally associated with explicit negotiation-based approaches to environmental dispute resolution. It is, however, clear from the illustrative examples in Table 1 that the Canadian experience with negotiation-based approaches to settlement of environmental disputes is much more extensive than has been generally recognised. Given the diversity of examples we have identified and the characteristics of the evolving systems of natural resources governance, we expect that a more comprehensive review would reveal many other cases at all five levels and concerning all kinds of environmental disputes.[12]

The Parties Involved

A wide variety of parties have been involved in negotiating settlements to environmental disputes: these include government departments and ministries, crown corporations (acting as project proponents), industry, environmental and other interest groups, native Indian bands and tribal councils, and municipal councils. One-third of the cases we identified involved negotiations between government, industry and interest groups (see Table 2). These are the types of negotiations most commonly associated with the field of environmental mediation. However, our research indicates that there is a much broader range of environmental negotiations. Intergovernmental negotiations, negotiations between government proponents and private groups, and private negotiations also occur frequently.

Negotiations frequently involve or are associated with a regulatory body of some kind, particularly at the project level. For example, negotiation in Ontario has increasingly been initiated by the Ontario Environmental Assessment Board. In Alberta, the use of negotiation-based approaches has been used by the Alberta Energy Resources Conservation

12. For an analysis of the evolving systems of natural resources governance see Dorcey (1986).

TABLE 2
THE PARTIES IN NEGOTIATION

Intergovernmental	
federal/provincial	9
international	4
	13
Governmental/Private	
government, industry, native Indians	4
government, industry, local citizens	4
government, industry, interest groups	3
government, industry, local citizens, interest groups	1
	12
government proponent, local citizens	4
government proponent, native Indians	1
government proponent, government, native Indians	1
	6
Private	
industry, native Indians	1
	1
Total number of cases	32

Board. Examples have also been found involving the National Energy Board, the Federal Environmental Assessment Review Process, and the International Joint Commission (the latter at the international rights level). Recently, the Manitoba Ministry of Environment has included a provision for the mediation of environmental disputes in its draft legislation for the new *Clean Environment Act* (1986).

The Decision-Making Environment

Four negotiation-based mechanisms were found to be used in the cases: unassisted negotiation, mediation, political mediation and arbitration (see Table 3). It is notable that:

- unassisted negotiations accounted for more than half of all cases;
- all assisted negotiations involved some form of mediation;
- almost half of the mediated cases used political mediators;
- most negotiation experience has been at the project level;
- at the project level, negotiations were usually mediated but all four negotiation mechanisms were used to some extent;
- multiple use negotiations were usually unassisted;
- policy level negotiations were mediated;
- all of the domestic and international rights negotiations were unassisted.

Additional research into the use of environmental negotiation would likely reveal many more cases of unassisted negotiation and, perhaps, a greater use of political mediation than represented by our sample.

The cases also show that negotiations are being conducted in all three types of governance contexts: negotiative, authoritative and consultative (see Table 4). However, there are some significant differences in the contexts for negotiation at the various levels:

- at the project level, most negotiations were negotiative (Type 1); fewer were consultative (Type 3) and none were intergovernmental (Type 2);

TABLE 3
NEGOTIATION MECHANISMS AND LEVELS OF DISPUTE

	PROJECT	*MULTIPLE USE*	*POLICY*	*DOMESTIC RIGHTS*	*INTERNATIONAL RIGHTS*
Unassisted negotiation	Darlington Atikokan Whitchurch Holbrook Rogers Pass Port Simpson	Lake-of-the-Woods Ottawa River Fraser River Estuary		Canada-Nova Scotia Atlantic Accord Prairie Provinces Aggt. Mackenzie River	Boundary Waters Treaty Columbia River Treaty Great Lakes Water Quality Skagit Treaty
Mediation	Northern Flood White Dog Meaford Pauze Zalev Bros. Twin-Tracking Glackmeyer		Chemicals Mgmt. Pop Can Policy		
Political mediation	White Dog Syncrude I Syncrude II Canadian Superior Syncrude III	Cowichan River			
Political mediation/ arbitration			Sulphur Recovery		

TABLE 4
THE GOVERNANCE CONTEXTS AND LEVELS OF DISPUTES

	TYPE 1		*TYPE 2*	*TYPE 3*
PROJECT LEVEL	Pauze Zalev Bros. White Dog Whitchurch Darlington Holbrook Meaford	Cdn Superior Northern Flood Twin-Tracking Port Simpson Atikokan Glackmeyer Syncrude I		Syncrude II Syncrude III Rogers Pass
MULTIPLE USE LEVEL	Cowichan River Estuary		Lake of the Woods Aggt. Ottawa River Aggt. Fraser River Estuary	
POLICY LEVEL	Sulphur Recovery			Chemical Mgt Pop Can Policy
DOMESTIC RIGHTS LEVEL			PPWA Mackenzie River Aggt. Nova Scotia Agreement Atlantic Accord	
INTERNATIONAL RIGHTS LEVEL			Boundary Waters Treaty Columbia River Treaty Great Lakes Water Quality Aggt. Skagit Treaty	

- most multiple use negotiations were intergovernmental;
- policy level negotiations were largely consultative;
- all domestic and international rights negotiations were intergovernmental.

Again, given the characteristics of the evolving systems for governance of natural resources, a more comprehensive analysis of Canadian cases would likely reveal negotiations in all three types of contexts -- negotiative, consultative and authoritative -- at all levels (except perhaps the international rights level where private parties are unlikely to be involved).[13]

There are, however, several notable differences in the kinds of negotiation-based approaches used in the three types of contexts (see Table 5):

- all intergovernmental (authoritative or Type 2) negotiations were unassisted;
- in Type 1 and 3 contexts, some form of mediated negotiations predominated.

Again, additional research should reveal many more examples of unassisted negotiations in Type 1 and Type 3 contexts, as well as examples of assisted negotiations in Type 2 (intergovernmental) situations.

In summary, two important conclusions can be drawn about the use of negotiation-based approaches. First, negotiations are not restricted to the project level: at the project level there is most experience with a variety of mechanisms, particularly mediation, while at other levels there is less diversity of approaches and a concentration in unassisted negotiation. Second, negotiations do occur in authoritative or consultative governance contexts. In the cases examined there is a predominance of unassisted negotiation in Type 2 (authoritative or intergovernmental), mediation in Type 1 (negotiative), and mediation in Type 3 (consultative). In a more comprehensive sample, unassisted negotiations would likely predominate in all contexts.

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13. At the domestic rights level negotiations involving aboriginal peoples would bring in private parties.

TABLE 5
NEGOTIATION MECHANISMS AND GOVERNANCE CONTEXTS

	TYPE 1	*TYPE 2*		*TYPE 3*
Unassisted negotiation	Whitchurch Holbrook Port Simpson Darlington Atikokan	Lake of the Woods Ottawa River Prairie Provinces Aggt. Mackenzie River Atlantic Accord Canada-Nova Scotia	Boundary Waters Treaty Columbia River Treaty Great Lakes Water Quality Skagit Treaty Fraser River Estuary	Rogers Pass
Mediation	Northern Flood White Dog Meaford Pauze Zalev Bros. Twin-Tracking Glackmeyer			Chemicals Mgmt Pop Can Policy
Political mediation	White Dog Canadian Superior Cowichan River Estuary Syncrude I			Syncrude II Syncrude III
Political mediation/ arbitration	Sulphur Recovery			

The Agreements

The negotiations in our sample produced a diversity of agreements. Of the 32 cases identified in our sample, 25 have produced an agreement to date. The remaining cases are either ongoing or have been unsuccessful. Table 6 classifies the agreements reached by the nature of the provisions they contain: whether procedural and/or substantive.

At the project level, the agreements are evenly distributed between those that deal only with substantive issues and those that deal with substance and establish procedural mechanisms of some form. Usually, the agreements provide for mitigation and compensation in exchange for withdrawal of community opposition. The kinds of project level disputes that resulted in procedural and substantive agreements are frequently associated with *proposed* developments (such as energy or mining developments). These agreements frequently included mitigation measures and compensation payments, often established an arbitration mechanism to settle future claims, and, in one instance, allowed for community participation in mitigation and monitoring measures. In no instance did a negotiated agreement result in the abandonment of a proposed project. In contrast, project level disputes about the environmental effects of *existing* developments (primarily landfills) are more closely associated with substantive agreements. These agreements have resulted in plans for gradual site closure, rather than the more immediate closure being sought by community groups. Gradual closure plans both satisfied community concerns over negative environmental effects and gave site operators and municipal authorities flexibility to close down and find a new site.

At the multiple use and rights levels, agreements more often produced procedural and substantive agreements, rather than substantive agreements alone. Such agreements frequently established permanent or semi-permanent administrative bodies to deal with future disputes on an ongoing basis (e.g., the International Joint Commission, Fraser River

Executive Committee, Lake of the Woods Control Board, Prairie Provinces Water Board, Ottawa River Control Board). Agreements that dealt only with substance were either the result of consultative negotiations (Pop Can Policy and Chemicals Management) or dealt with specific projects rather than broader resource management concerns (see Columbia River Treaty and Skagit Treaty cases). In one rights level case, a negotiated settlement did result in the abandonment of a project proposal (see Skagit Treaty).

What Contributes to Negotiation Success?

To gain insights into the factors that contribute to the success of environmental negotiation in Canada, we have developed a series of questions from the literature on the principles and practice of negotiation. The questions address five sets of factors: (i) the kinds of disputes being negotiated (what can and cannot be negotiated), (ii) the parties involved (when is success more likely, how many parties should be involved), (iii) the decision-making environment (what is the relationship between negotiation mechanisms, governance contexts, and levels), (iv) the negotiation process (what procedural elements are important), and (v) implementation problems (what factors help or hinder implementation). This section briefly summarizes our major findings; these are discussed in detail in Dorcey and Riek (1987), but, in general, the analysis is severely constrained by the limited information available and the conclusions must therefore be considered preliminary.

The Disputes Under Negotiation

We can analyze the nature of disputes under negotiation by considering: In what resource sectors has there been negotiation experience? What kinds of issues have been negotiated (e.g., site selection, compensation, mitigation)? What kinds of disputes are not being explicitly negotiated? What is the nature of the conflict (well developed or newly emerging)?

TABLE 6
NEGOTIATED AGREEMENTS

	PROCEDURAL & SUBSTANTIVE	*SUBSTANTIVE ONLY*
PROJECT LEVEL	Darlington Atikokan White Dog Pauze Northern Flood Port Simpson	Whitchurch Holbrook Syncrude II Canadian Superior Rogers Pass Glackmeyer
MULTIPLE USE LEVEL	Lake of the Woods Ottawa River Fraser River Cowichan River	
POLICY LEVEL		Chemicals Management Pop Can Policy
RIGHTS LEVEL	Prairie Provinces Canada-Nova Scotia Atlantic Accord Boundary Waters Great Lakes	Columbia River Skagit Treaty

How have disputes been selected for negotiation? How are negotiations at different points in time related? Our analysis revealed several important observations:

- Although the cases identified at the project level dealt with a variety of resource sectors (landfills, mining and energy developments, water resource use and management), the kinds of issues being negotiated are similar: the mitigation of pollution problems of existing projects or the mitigation of community impacts of new projects.
- Negotiation has not been used as a replacement for existing project approval processes; more typically, negotiations have been restricted to a narrow range of project-related issues.
- Negotiation has been used for a variety of conflicts, whether well-developed or emerging. Although the literature on negotiation/mediation stresses the importance of selecting polarized and mature disputes, pro-active negotiation may also be useful and appropriate in certain situations.

The Parties In Negotiation

There are three important issues concerning the parties in negotiation: What types of parties are involved in negotiations and does this affect the negotiation outcome? Can all parties be easily identified? Are party representatives easily identified? Our analysis revealed the following:

- Negotiations occur between a variety of different parties, but because almost all negotiations were successful we cannot judge whether the numbers or kinds of parties affect negotiation success.
- The parties to negotiation were easily identified at the project level, and representation issues did not seem problematic. At the policy level, however, the cases suggest that identification of the parties to negotiation is a difficult but not impossible task.

- Negotiation can be used to foster and strengthen an ongoing relationship between negotiating parties. By using negotiation in situations where the parties may have future interactions, adversarial parties can gradually develop an improved relationship and work together on a variety of issues. In essence, they are slowly learning how to negotiate!

The Decision-Making Environment

The types of questions we can consider in analyzing the negotiation environment include: What negotiation mechanisms have been used? Does the level of disputes or the governance context affect the suitability of different mechanisms? How do negotiated agreements fit into existing administrative processes or board procedures? How are negotiations at different levels related? When are assisted negotiations more appropriate than unassisted negotiations? Our analysis revealed some preliminary but insightful findings:

- Within the context of a regulatory process the parties to a dispute may negotiate on their own initiative or their negotiations may be encouraged by a regulatory body, although we cannot make specific claims about the overall success of such government initiated negotiations (only 3 of 7 have reached agreement so far).
- Environmental review or assessment boards have successfully incorporated negotiated agreements into their existing administrative processes. When a negotiated agreement is reached over a matter normally subject to board approval, the board also has final approval of the validity of a negotiated agreement. The ways in which negotiated agreements can be incorporated into project approval processes, however, depend upon the mandates and functions of individual boards. Thus, regional negotiation styles arise.

- At both the project and policy levels, experimentation with negotiation appears profitable using political or apolitical mediation in a variety of contexts. The focus of environmental mediation literature on apolitical mediation perhaps belittles the possibilities in political mediation.
- Regulatory agencies have not experimented with ways in which they could foster unassisted negotiations between parties involved in specific disputes. Not much attention has been given to this in the literature on environmental negotiation or mediation, apart from suggestions aimed towards improving the general negotiating skills of individuals. There is not enough information in the cases identified, nor are there enough cases, to make it possible to determine if the encouragement of unassisted negotiations would be better or worse than the encouragement of mediation or some other form of assisted negotiation. However, it is generally assumed that parties relatively inexperienced with negotiation would benefit from some type of assisted negotiations.

The Negotiation Process

Several factors might affect the process of negotiation: Does a deadline affect negotiation success? How does the presence or threat of litigation or administrative processes affect negotiations? Are there sufficient incentives for the parties to negotiate? Can the parties reach agreement on procedural issues (i.e., the mechanics of negotiation)? How is negotiation funded? Do the parties negotiate in good faith? We can only begin to answer these questions given the limited number of cases we have identified and the lack of detailed information about them.

- Existing regulatory processes are useful catalysts for negotiation. Like the threat of court action, the threat of legislative action or administrative procedures can give parties incentives to negotiate.

- Success with negotiation-based approaches may lead to their funding by parties to a dispute rather than by government agencies. Where parties have previously had joint and successful experiences with negotiation, this may be more feasible than in cases where negotiation is being attempted for the first time between parties.
- Government's responsibility for maintaining some balance of power between negotiating parties, especially with regard to financial resources, is not clear. Efforts could be made to develop possible funding methods for apolitical mediations that provide support for parties yet which also maintain the neutrality of the negotiations.
- There is some evidence to suggest that the lack of clear deadlines might unnecessarily prolong negotiation or inhibit settlement. This implies that government-initiated negotiations should consider carefully the structural factors, such as deadlines, that contribute to negotiation success.

Implementation

We can assess the success of negotiations by considering what, if any, implementation problems arose once an agreement was reached. There are several questions that should be addressed: How frequently do implementation problems arise? What are the sources of implementation problems? For example, was the wording of agreements clear and unambiguous? Did arbitration procedures for claims work smoothly and as planned? Did the agreement last, or did parties attempt to withdraw from the agreement or renegotiate certain issues? Did groups not party to the agreement voice complaints about it? Generally, our findings indicate considerable success and few implementation problems with negotiated agreements.

- Very few negotiated agreements have resulted in implementation problems. Of 25 cases in which negotiations have concluded and resulted in an agreement, only 5 have been identified as having implementation problems.

- The few implementation problems that did arise included imprecise wording of agreements, slow arbitration processes, attempts by parties to renegotiate agreed-upon issues, withdrawal of a party from the agreement, and complaints by parties excluded from negotiations but nevertheless affected by the agreement.
- Our findings should be interpreted with caution because few written case studies have dealt explicitly with implementation of agreements. Instead, the focus has more often been on the events leading up to and during negotiation. There is clearly a need to gather more information on the implementation of negotiated agreements.

Towards An Agenda for Development and Research

Given the extensive use and apparently great potential of negotiation in settling environmental disputes in Canada, it is remarkable how little research has been undertaken to evaluate its productivity and guide its development. It is extremely difficult to be analytical about the experience to date because of the limited number of case studies that have been written-up, the diverse and partial frameworks that have been applied in those that have been studied, and the lack of analytical frameworks appropriate to the systems of natural resources governance in Canada. We therefore suggest how we should proceed so as to learn more, and more quickly, from Canadian and U.S. experience through an integrated program of development and research.

How Can We Learn More From Canadian Experience?

The extensive and diverse use of negotiation-based approaches to settling environmental disputes in Canada presents an opportunity to learn from experience so far. Although the cases we have identified are only a small sample, negotiation appears to have great potential in settling environmental disputes. To accelerate the introduction of negotiation-based

approaches and the further testing of their potential, experimental development and research need to proceed together and on several fronts.

Our analysis has indicated several areas where further research might prove beneficial. A comprehensive search for additional examples of environmental negotiation would help test and refine our preliminary findings. More detailed information on negotiation procedures used (i.e., the mechanics) and on implementation problems could provide practitioners with valuable guidelines for future experimentation.

Of more immediate importance than research is the need for continued experimentation with negotiation-based approaches. The Canadian experience to date has shown that negotiation is a viable and useful approach to resolving certain types of environmental disputes. Based on the results of our analysis of Canadian experience, we feel that priority should now be given to more purposeful experimentation, guided by the following recommendations:

- *Focus on experimentation at the project level,* because there are existing administrative mechanisms within which negotiation can be used.
- *Use negotiation as a complement to project review processes,* not as a substitute.
- *Identify opportunities for negotiation in sub-components of the total project review process,* e.g., in scoping, in establishing monitoring and mitigation plans, in determining compensation levels, etc.
- *Use negotiation either pro-actively or after a conflict has been well established.*
- *Consider the use of negotiation in a consultative context to produce a recommendation, as well as in a negotiative context to produce an agreement.*

- *Choose disputes that have a reasonable chance of resolution by negotiation,* i.e., avoid disputes that are difficult to resolve, such as those involving fundamental differences of principle or where the parties have little reason to seek an agreement.[14]
- *Use negotiation when the parties can be clearly identified,* e.g., at the project level where project impacts are localized.
- *Experiment with negotiation in situations where the parties are likely to have future relations,* because this allows parties to learn negotiating skills and helps to promote wider acceptance of negotiation.
- *First convene the parties and then suggest the use of negotiation,* e.g., convening could be done by government staff trained to do this during screening, mitigation, compensation, monitoring, etc.
- *Pay close attention to representational problems,* especially if using negotiation pro-actively where parties may not have had time to form cohesive groups.
- *Offer training in how to negotiate,* e.g., once parties show interest in using negotiation, the convenor could offer to hold a one day workshop to help participants understand what would be involved.
- *Suggest the use of some third-party intervention rather than unassisted negotiation.*
- *Try minimal third party intervention first,* i.e., consider conciliation, facilitation, fact-finding, mediation, arbitration sequentially and only use as dispute requires.
- *Try apolitical and political mediation;* both may be appropriate but political mediation is more likely appropriate in a consultative context, and apolitical mediation required in some judicial and quasi-judicial processes.
- *Set credible deadlines for negotiation after which regular administrative procedures would come into force.*

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14. The U.S. literature has given a great deal of attention to the questions that should be asked in determining at an early stage whether a dispute is amenable to resolution through some form of assisted negotiations; see for example, Cormick (1985) and Shrybman's (1984) application to Canada.

- *Encourage the parties to pay for the costs of mediation* after they have had some experience and success with negotiation; government agencies should be prepared to support parties' initial attempts at mediated settlements.
- *Establish resource pools* which the parties could draw on as required to provide assistance and funding for technical or other requirements during the negotiation process.
- *Create explicit arrangements for implementation of the results of the negotiation*, e.g., this might include establishment of an organization that carries out implementation through a process of negotiation or provisions for renegotiation as necessary.

How Can We Learn More From The U.S. Experience?

The literature on the principles and practice of negotiation is dominated by major contributions from the United States, where the use of environmental mediation has been more extensive than in Canada. Gerry Cormick, Larry Susskind and Gail Bingham are just a few of the people who have been at the forefront of research and development efforts that have stimulated explosive growth in the literature during the last decade (e.g., Bingham, 1986; Cormick, 1985; RESOLVE, 1978; Rivkin, 1977; Susskind and Madigan, 1984; Talbot, 1983).

Canada can learn an immense amount from the U.S. experience and literature. Indeed, Bingham's (1986) analysis of over 100 examples of environmental mediation in the U.S. points out many similarities to our findings. For example, Bingham (pp. xvii-xxv) found that mediation occurred over a variety of issues at both the project and policy level; policy-level agreements, however, proved more difficult to implement. Mediation involved a wide array of parties and occurred most frequently between governments, or between government and local citizens. Mediation in the U.S. has also been used to produce agreements and recommendations, as well as to improve communication between parties. Bingham also found several factors that contribute to the likelihood of success in mediation: (i) the use of

dispute assessment or screening by a professional mediator to help the parties decide if they should enter into negotiation or mediation; (ii) the willingness of the parties to negotiate; and (iii) the participation by those with authority to implement decisions. Perhaps more significantly, Bingham found that negotiation success was not affected by the number of parties, the types of issues, or the presence of a deadline (although a sense of urgency was important).

Several important differences between the governance systems in Canada and the U.S. could affect the use of negotiation. These differences relate to the role of the courts, legislatures, government executives, government bureaucracies and private interests.

- Property rights and due process are not enshrined in the constitution in Canada.
- The constitutional division of responsibilities for natural resources gives the provinces a much bigger role than states in the Canadian federal system.[15]
- Federal and provincial government executives (i.e., cabinets) in Canada have much greater freedom to act; they are not so constrained by the courts and legislatures as in the U.S.[16]
- The discretionary nature of Canadian legislation and the weak development of administrative compliance legislation have resulted in much less use of the courts in Canada.
- The courts in the U.S. have historically taken a more interventionist role and this is only slowly evolving in Canada under the influence of the new Charter of Rights and Freedoms.
- There is a greater tradition of self-governance and litigation that grew out of the revolution in the U.S., in contrast to the tradition in Canada that the government has always been there and the Crown can do no wrong nor be sued.

15. In the exceptional case of the territories, the federal government still retains a dominant role.

16. Minority governments can produce important exceptions to this.

There has not yet, however, been much consideration of how these differences have influenced the ways in which environmental disputes arise and the ways used to settle them. Based on the U.S. literature and the Canadian cases we have analysed we can suggest several possible implications. For example, the more even distribution and overlap of constitutional powers in Canada has led to more bargaining and negotiation between the federal and provincial governments. The much smaller size of bureaucracies in Canada, combined with the practice of writing highly discretionary legislation and the weak development of administrative compliance legislation, has likely made bargaining and negotiation more feasible.

In Canada, there is also less use of bargaining and negotiation that is stimulated by a desire to avoid the courts, particularly in the area of federal rulemaking. As much as 80% of the U.S. Environmental Protection Agency's rules and regulations are challenged in court (*Resolve*, No. 17, 1986, p. 8). This has led the EPA to develop the Regulatory Negotiation Project to experiment with negotiated rulemaking. This, in turn, has spawned a series of theoretical articles (McMahon, 1985; Susskind and McMahon, 1985; McGlennon and Susskind, 1987). Differences in governance systems, therefore, affect not only the types of negotiation experience but also the development and emphasis of the literature. Such differences should be carefully considered when applying the results of U.S. experience to Canadian situations, and analysis of them should be a research priority.

How Productive are the Negotiations and Bargaining?

If bargaining and negotiation are pervasive in the governance of natural resources in Canada, then, before considering how the settlement of environmental disputes could be improved by more and better use of explicit negotiation, it is essential to consider how well the existing processes operate. Based on the results of previous studies the following conclusions about

the evolving systems of governance can be suggested and should be refined and tested in more comprehensive analyses:[17]

- Bargaining and negotiation are in principle consistent with the *ideals of democratic governance* to which Canadians aspire.
- Bargaining and negotiation are processes which are highly suitable for dealing with the conflicts that are arising from *increasing demands, complexity and uncertainty* in the governance of natural resources.
- The evolving processes of governance have greatly increased the opportunities for *participation of interests,* particularly those in agencies of government, in decision-making on natural resources.
- While there has been an enormous increase in the data and knowledge available to be used in governance, the *information* developed frequently falls short of what could be generated.
- The productivity of the bargaining and negotiation is not only frustrated by poorly informed participants but also by a lack of *leadership and accountability* in the hierarchies of governance.
- Weaknesses in the *interaction skills* of participants in the governance processes have seriously undermined the potential of the bargaining and negotiation.
- The *structure* of some governance processes has accentuated environmental disputes.

How Can We Improve the Productivity of Bargaining and Negotiations?

It is in the context of this broad perspective on the performance of existing decision-making processes that the potential for more and better use of explicit negotiation-based approaches

17. These studies are reported in Dorcey (1986), which focusses on the governance of Pacific coastal resources but does reference studies of other resource governance systems in Canada. Although it is not usually the main topic, a variety of disciplines/professions that have been analysing the governance of Canadian resources include consideration of the role of negotiation. Several recent papers and conferences suggest that a ready basis exists for outlining the role of negotiation in competing analytical models of natural resources governance (e.g., Sproule-Jones (1982), Saunders (1986), Pinkerton and Berkes (1986), and McCay and Acheson (1986)).

to settlement of environmental disputes should be considered. We would therefore emphasize two issues that should be addressed in research and development: developing interaction skills and structuring the processes of governance.

Improving the interaction skills of participants is of fundamental importance. Poor communications skills, negative and adversarial challenging, and a lack of negotiation skills predominate and cause serious problems in settling environmental disputes throughout the Canadian governance system. Without these skills it is extremely difficult to deal appropriately and effectively with the cognitive, value, interest and behavioral elements of conflict. The difficulties are compounded by increasing conflict. At the same time, the relatively few individuals who have these skills clearly demonstrate their impact on the performance of the governance processes in which they are involved. A broad strategy of integrated research and development is required to accelerate innovations that are already underway and that addresses the following questions:

- How can basic interaction skills be better developed as part of the post-secondary education programs undertaken by students intending careers in the field of natural resources?
- How can basic interaction skills be better developed in the organizational development programs of government agencies and companies concerned with natural resources?
- How can a cadre of people with specialized skills in assisting negotiations be more quickly developed?

Structuring the processes of governance to better facilitate and exploit negotiation is crucial. The development of referrals, guidelines, task force and planning processes, together with the use of interagency committees and special purpose organizations, have helped to facilitate negotiations. Major deficiencies in the performance of these processes derive in

large part from the weaknesses in participants' interaction skills; there are, however, often some structural weaknesses, particularly in the earlier stages of their development. In contrast, impact assessment processes have often been developed in ways that frustrate productive bargaining and negotiation. The quasi-judicial processes that are generally used in reviewing impact assessments encourage the negative and adversarial behaviour of participants, and tend to put the emphasis on destroying the credibility of each other rather than seeking understanding of the reasons for disagreements and opportunities for agreement. There is a need to experiment with different ways of structuring the processes for bargaining and negotiation in the governance of natural resources. The following suggestion for impact assessment processes illustrates in a general way the type of experiments that should be conducted using the guidelines we have proposed:

- Mandate the panel to review agreements reached with regard to project impacts, their mitigation and compensation, and to recommend action on residual disagreements.
- The panel through its staff would be responsible for organizing and setting a schedule for negotiations between representatives of the interested parties.
- The staff would assist the negotiations by facilitation and mediation where necessary.
- The staff would thus assist in identifying stakeholders and representatives, determining procedures and agendas, defining issues, searching for potential agreements etc.[18]
- In particular, the staff would assist in fact-finding and problem-solving, bringing the stakeholders together with people having appropriate knowledge.[19]
- Written agreements and documentation of residual disagreements produced through this process would then be made public and submitted to the panel for review and adjudication, who could hold a public hearing if it is deemed necessary.

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18. For more detailed suggestions on the functions of the panel staff see the suggestions of Susskind and Madigan (1984: 188) and Cormick and Knaster (1986:6).

19. Innovative ways of dealing with scientific controversy in such assisted negotiations have been evaluated by Ozawa and Susskind (1985) and Cormick and Knaster (1986).

Summary & Conclusion

In this paper we have outlined a suggested framework for analysing negotiation-based approaches to the settlement of environmental disputes in Canada. We have found that Canadian experience with negotiation has, by and large, been successful. We have argued that negotiation-based approaches are much more widely used in the governance of natural resources in Canada than is generally recognised. This not only reflects the widespread practice of bargaining but also the increasing use of explicit negotiation. It is in this context, where negotiation is often unassisted by third parties and undertaken sporadically, that opportunities for more and better use of negotiation-based approaches to resolving environmental disputes, including greater use of third parties and government support of negotiation, should be considered. Negotiation appears to be an extremely useful device for resolving certain types of environmental disputes within many existing government administrative processes.

Before we can progress much further in evaluating our experience with negotiation, it is essential to develop analytical frameworks appropriate to the principles and practice of governance in Canada. Without this, we cannot capitalize on the U.S. experience and the great progress of researchers and practitioners there in developing an understanding of the potential and practice of negotiation. Without such frameworks, we are constrained in assessing our own experience. Research should therefore focus on the formulation of analytical frameworks, capitalizing on the progress in a variety of disciplines, and then applying them to the breadth of Canadian experience in negotiation.

There are, however, significant limits on how much can be learnt from retroactive studies of negotiation and so it is essential to rapidly focus on opportunities for experimental development. Drawing on the analysis of experience to date we have argued that a broad

strategy designed to develop the interaction skills of participants and experiment with changes in the structure of governance processes such as impact assessment should be initiated, and we have suggested guidelines for it.

It is important to expect that, as more explicit attempts are made to improve and expand the use of negotiation-based approaches to settlement of environmental disputes, deeply entrenched attitudes, perceptions and interests will be challenged. Once this is recognised, it is easier to understand why there is so little explicit consideration of the practice of bargaining and negotiation. To change these reactions it will be necessary to demonstrate more clearly that explicit use of negotiation-based approaches can be better than those we use at present; better in that they can deal more effectively with concerns about fairness, informed choice, accountability and the cost of governance. We believe the case can be made; it is time to start making it.

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Appendix 1:

Case Studies of Negotiation Experience in Canada

TABLE 1: PROJECT NEGOTIATION IN ONTARIO I

CHARACTERISTIC	*DARLINGTON*	*ATIKOKAN*	*WHITE DOG*	*WHITCHURCH*	*HOLBROOK*
dispute	community impacts of nuclear plant	community impacts of coal-fired thermal plant	community health effects of mercury pollution	toxic wastes dumped in landfill	toxic wastes dumped in landfill
third-party intervention	unassisted negotiation	unassisted negotiation	i) mediation ii) unassisted negotiation	unassisted negotiation	unassisted negotiation
third-party	not used	not used	i) Edward Jolisse ii) not used	not used	not used
year dispute began	1971	1970s	early 1970s	mid 1960s	late 1970s
year negotiations began	1977	1970s	i) 1978 ii) 1985	1982	1982
duration of negotiations	4-5 months	unknown	i) 2 1/2yrs; ii) 6 months	several weeks	several weeks
parties	Newcastle township Ontario Hydro,	Atikokan township, Ontario Hydro,	native Indian bands, federal and provincial government, industry	industry, provincial government, community	industry, citizen group, county township, provincial government
initiator of negotiations	Ontario Hydro	Ontario Hydro	i)DIAND; ii) Indian bands	York Sanitation	township and citizen groups
event inducing negotiation	potential hearing under Environmental Assessment Act	potential hearing under Environmental Assessment Act	legal action brought by native Indians	legal action by govt, nominal fines; EAB hearing ordered for 1982;	threatened legal action by community groups; EAB hearing ordered for Nov 1982
past resolution attempts	Hydro liaison committee	none	previous negotiation attempts	inquiry, EAB hearing, ombudsman	town council meetings?
nature of agreement reached	compensation fund with arbitration of claims	arbitration of compensation payments; monitoring	compensation fund with arbitration of claims	plan for gradual closure	plan for gradual closure
implementation problems	not apparent	not apparent	not apparent	not apparent	not apparent
agreement subject to review	by EAB	by EAB	ratifying legislation	by EAB	by EAB
TYPE OF NEGOTIATION	*TYPE I*	*TYPE I*	*TYPE I*	*TYPE I*	*TYPE I*

TABLE 2: PROJECT NEGOTIATION IN ONTARIO II

CHARACTERISTIC	*MEAFORD*	*PAUZE*	*ZALEV BROS.*	*GLACKMEYER*
dispute	landfill siting	toxic wastes dumped in landfill	iron-oxide emissions from metal processing plant	sewage lagoon expansion
third-party intervention	mediation	mediation	mediation	mediation
third party	Ruth Burkholder Grey-Bruce Tourist Assn.	Michel Picher Adjudication Services Ltd.	Neil Gold Dean of Law, U of Windsor	Michel Picher Adjudication Services Ltd.
year dispute began	1982	1982	1977	mid 1980s
year negotiations began	1982	1984	1985	1985
duration of negotiations	underway for 4 years	4-5 months	underway for 2 years	1 day
parties	community, proponent (municipality),	industry, municipality provincial government, citizens groups,	industry, citizen group, union municipality, provincial government	local residents, town of Glackmeyer
initiator of negotiations	Minister of Environment	Chairman of EAB	Minister of Environment	lawyer for residents
event inducing negotiation	EAB hearings	legal action; closure of site threatened by Ministry	threatened legal action	threatened legal action
past resolution attempts	public consultation	mitigation efforts	site evaluation	none
nature of agreement reached	negotiation in process	plan for closure; mitigation; ratepayer representation on waste authority	negotiation in process	buffer zone, resident access to sewage system
implementation problems	negotiation in process	not apparent	negotiation in process	party withdrew; court suggested negotiation
agreement subject to review	by EAB	by EAB	by EAB	none
TYPE OF NEGOTIATION	*TYPE I*	*TYPE I*	*TYPE I*	*TYPE I*

TABLE 3: PROJECT NEGOTIATION IN ALBERTA AND THE ERCB

CHARACTERISTIC	*SYNCRUDE I*	*SYNCRUDE II*	*CDN SUPERIOR*	*SYNCRUDE III*
dispute	community impacts of existing oil sands mining	community impacts of new oil sands mining	emergency response plan for sour gas site	major expansion of oil sands mining
third-party intervention	political mediation	political mediation/ arbitration	political mediation	political mediation/ arbitration
third party	ERCB member	Ralph Evans, ERCB	unknown	Ralph Evans, ERCB
year dispute began	1984	1985	unknown	1986
year negotiations began	1985	1985	1985	1986
duration of negotiations	underway for 2 years	5 months	unknown	underway for 1 year
parties	government depts, industry, ERCB, native Indian band	government depts, industry, ERCB, native Indian band	industry, town of Hinton, local health officers	government depts, industry, ERCB, native Indian band
initiator of negotiations	ERCB	ERCB	ERCB	ERCB
event inducing negotiation	unsatisfactory hearing	mining application	ERCB initiative	mining application
past resolution attempts	ERCB hearing	none	none	none
nature of agreement reached	negotiation in process	an agreed application; mitigation; monitoring community participation	evacuation plan	negotiation in process
implementation problems	negotiation in process	not yet	not yet	negotiation in process
agreement subject to review	no	by ERCB	by ERCB	by ERCB
TYPE OF NEGOTIATION	*TYPE 1*	*TYPE 3*	*TYPE 1*	*TYPE 3*

TABLE 4: PROJECT NEGOTIATION IN MANITOBA IN B.C. IN THE FEDERAL GOVERNMENT

CHARACTERISTIC	*NORTHERN FLOOD*	*PORT SIMPSON*	*ROGERS PASS*	*TWIN-TRACKING*
dispute	community impact of hydroelectric project	siting LNG terminal near native Indian reserve	construction effects in park areas	construction effects on native Indian fishing rights
third-party intervention	mediation	unassisted negotiation	unassisted negotiation	mediation
third party	Leon Mitchell, Q.C.	not used	not used	Andy Thompson, Professor and lawyer, UBC
year dispute began	1970	early 1980s	1980s	early 1980s
year negotiations began	1975	early 1980s	1982	1985
duration of negotiations	3 years	unknown	several months	6 months
parties	native Indians, Manitoba Hydro, DIAND	native Indians, Dome Petroleum	federal government CP Rail & Parks Canada	native Indians, CN Rail
initiator of negotiations	native Indians	Dome Petroleum	unknown	Minister of Transport
event inducing negotiation	threatened legal action by native Indians and fed govt	upcoming NEB hearing	EARP hearings	legal action by native Indians; political pressure
past resolution attempts	public inquiries	unknown	CTC review, hearings	EARP hearings
nature of agreement reached	mitigation; compensation fund with arbitration of claims	compensation, fishery protection, employment from Dome; easements from Band; claims settled by joint committee or arbitration	scoping of issues for EARP hearing process	no agreement reached; parties resort to courts
implementation problems	imprecise wording; slow process; renegotiation; parties excluded	LNG project abandoned	issues reemerged as community concerns were raised	no agreement reached
agreement subject to review	no	no	by EARP panel	not applicable
TYPE OF NEGOTIATION	*TYPE 1*	*TYPE 1*	*TYPE 3*	*TYPE 1*

TABLE 5: MULTIPLE USE NEGOTIATIONS

CHARACTERISTIC	*LAKE-OF-THE-WOODS*	*OTTAWA RIVER*	*FRASER RIVER, B.C.*	*COWICHAN RIVER, B.C.*
dispute	regulate water flows for hydro, flood control, navigation	manipulate hydro storage to reduce flooding	development of estuary management program	implementation of estuary management plan
third-party intervention	unassisted negotiation	unassisted negotiation	unassisted negotiation	political mediation
third party	not used	not used	not used	G.K. Lambertsen, MOE
year dispute began	early 1900s	1974	late 1970s	early 1970s
year negotiations began	1917	mid 1970s	1977	1981
year agreement reached	1928	1983	1985	1984
parties	Ontario, Manitoba, Canada	Ontario, Quebec, Canada	B.C. Ministry of Environment, Environment Canada	Ministry of Environment, fed Dept. of Fisheries, industry, landowners
initiator of negotiations	IJC recommendation	unknown	both parties	Ministry of Environment
event inducing negotiation	IJC levels set; federal legislation enacted	flooding in Montreal area in 1974 and 1976	increasing use and conflict in the Fraser River estuary	potential use of estuary as major industrial port
past resolution attempts	Board set up in 1919 but Ontario withdrew legislation	guidelines and committees	Fraser River Estuary Study	two Task Force reviews
nature of agreements reached	regulation of water flows within limits set by IJC; do not regulate water quality	committee to regulate storage capacity to reduce flood damage without reducing hydro capacity; referral of disputes to Cabinet ministers	specification of broad goals for information systems, water quality plans, activity plans, and area plans negotiated by executive committee	environmental management plan for the estuary including subagreements between parties
implementation problems	not apparent	not apparent	slow, piecemeal implementation	not apparent
agreement subject to review	no	no	no	no
TYPE OF NEGOTIATION	*TYPE 2*	*TYPE 2*	*TYPE 2*	*TYPE 1*

TABLE 6: POLICY LEVEL NEGOTIATION

CHARACTERISTIC	*SULPHUR RECOVERY*	*CHEMICALS MANAGEMENT*	*POP CAN POLICY*
dispute	revising sulphur recovery guidelines in Alberta	drafting chemicals management proposal for federal government	drafting new regulations for soft drink containers
third-party intervention	political mediation/arbitration	mediation	mediation
third party	ERCB member	The Niagara Institute	Paul Emond, Professor Osgood Hall Law School
year dispute began	early 1980s	1970s	mid 1970s
year negotiations began	1986	1984	1985
duration of negotiations	underway for 1 year	1 year	5 weeks
parties	Alberta Environment, ERCB, industry, 3 public representatives	govt, industry, interest groups, public scientists, academics, consultants,	industry, interest groups, government
initiator of negotiations	ERCB	Environment Canada	Ontario Environment
event inducing negotiation	none	none	none
past resolution attempts	past revisions did not include public participation	none	none
nature of agreement reached	negotiation in process	consultation document, not binding on any of the parties	proposed legislations
implementation problems	negotiation in process	nothing to implement	none
agreement subject to review	by Alberta Environment and ERCB	not applicable	by Ontario legislature
TYPE OF NEGOTIATION	*TYPE 1*	*TYPE 3*	*TYPE 3*

TABLE 7: DOMESTIC RIGHTS LEVEL NEGOTIATION - WATER RESOURCES

CHARACTERISTIC	***PRAIRIE PROVINCES***	***MACKENZIE RIVER***
dispute	regulate inter-provincial water supply and management	regulate inter-provincial water supply
third-party intervention	unassisted negotiation	unassisted negotiation
third-party	not used	not used
year dispute began	1967	late 1960s
year negotiations began	unknown	unknown
year agreement reached	1969	negotiations in process
parties	Alberta, Manitoba, Saskatchewan, Canada	B.C., Alberta, Saskatchewan, N.W.T., Canada
initiator of negotiations	unknown	unknown
event inducing negotiation	large water development proposal by Alberta in 1967	construction of Bennett Dam in B.C. in late 1960s
past resolution attempts	unknown	unknown
nature of agreement reached	formula for allocating water supply between three provinces; provisions to address water quality in the future: referral of disputes to Federal Court	negotiation in process
implementation problems	not apparent	negotiation in process
agreement subject to review	no	no
TYPE OF NEGOTIATION	*TYPE 2*	*TYPE 2*

TABLE 8: DOMESTIC RIGHTS LEVEL NEGOTIATION - OFFSHORE OIL AND GAS RESOURCES

CHARACTERISTIC	*CANADA-NOVA SCOTIA*	*ATLANTIC ACCORD*
dispute	offshore oil and gas resource management and ownership rights	offshore oil and gas resource management and ownership rights
third-party intervention	unassisted negotiation	unassisted negotiation
third party	not used	not used
year dispute began	1980	1980
year negotiations began	early 1980s	early 1980s
duration of negotiations	2 years	5 years
parties	Nova Scotia, Canada	Newfoundland, Canada
initiator of negotiations	Nova Scotia	Newfoundland
event inducing negotiation	introduction of federal NEP	introduction of federal NEP
past resolution attempts	negotiations prior to NEP	negotiations prior to NEP
nature of agreement reached	revenue-sharing agreement; ownership would not prejudice; cap on provincial revenues	revenue-sharing agreement; no cap on provincial revenues; ownership settled in court
implementation problems	unknown	unknown
agreement subject to review	no	no
TYPE OF NEGOTIATION	*TYPE 2*	*TYPE 2*

TABLE 9: INTERNATIONAL RIGHTS LEVEL NEGOTIATION

CHARACTERISTIC	*BOUNDARY WATER*	*COLUMBIA RIVER*	*GREAT LAKES*	*SKAGIT TREATY*
dispute	Canada-U.S. water management	managing variable flow of river in U.S. and Canada	water pollution in Lakes Erie and Ontario	construction of the High Ross Dam
third-party intervention	unassisted?	unassisted	unassisted	unassisted
third party	not used	not used	not used	not used
year dispute began	1890s	1930s and 1940s	1960s	1974
year negotiations began	early 1900s	1944	late 1960s	late 1970s
duration of negotiations	agreement reached 1909	agreement reached 1964	agreement reached 1972,78	agreement reached 1984
parties	US, Great Britain (Canada)	US, Canada, B.C.	US, Canada	US, Canada
initiator of negotiations	uncertain	uncertain	uncertain	IJC
event inducing negotiation	small, localized problems	flooding, hydro projects	pollution problems	potential flooding
past resolution attempts	piecemeal	IJC studies	IJC studies	1967 agreement
nature of agreement reached	establishment of IJC	dams, storage, power generation, energy sales	unknown	High Ross dam cancelled, compensation from B.C.
implementation problems	not apparent	not apparent	unknown	unknown
agreement subject to review	no	no	no	no
TYPE OF NEGOTIATION	*TYPE 2*	*TYPE 2*	*TYPE 2*	*TYPE 2*

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