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Canadian Natural Resource and Environmental Policy: Issues and Approaches

This book is a study of natural resource and environmental policy in Canada, historically the most significant area of Canadian economic activity. It discusses the evolution of Canadian resource policies from an early era of pure exploitation to the present era of resource management. This evolution represents a transition from the unfettered appropriation of resources by individuals and business interests to the more extensive involvement of the Canadian state in decisions about resource use and environmental protection. For the purposes of this book, “resource policy” refers to the regulation of the how, when, and where of primary resource extraction, while “environmental policy” refers to policy aimed at protecting the environment as a result of development, resource extraction, or consumption.

The evolution of Canadian policy reflects part of a global shift toward concern for the greater conservation of the environment and the sustainability of existing resource bases. Increased demand for resources has escalated worldwide: “Since 1950, the need for grain has nearly tripled. Consumption of seafood has increased more than four times. Water use has tripled ... Firewood demand has tripled, lumber has more than doubled, and paper has gone up sixfold. The burning of fossil fuels has increased nearly four-fold, and carbon emissions have risen accordingly ... The global economy is damaging the foundation on which it rests. Evidence of the damage to the earth’s ecological infrastructure takes the form of collapsing fisheries, falling water tables, shrinking forests, eroding soils, dying lakes, crop-withering heat waves, and disappearing species.”¹ Increased recognition of the dependency of human and other species’ survival on the diversity of complex ecosystems has aided the transition of resource policy from direct exploitation to an increasingly environmental focus. That is, policy increasingly addresses not only the conditions and amounts of resource appropriation but also the larger biophysical context in which these activities take place. The increase in environmental problems, and the growing frequency of environmental “events” of both an acute and a chronic nature,

have contributed to the perception of an environmental crisis at the global level that has had significant consequences for national policy making.

The accelerated pace and consequences of social impacts on environmental quality, their often irremediable character, as well as the lack of preventative measures to forestall these problems are perceived increasingly as a crisis of governance. Knowledge of the long-term, often indirect, and extensive impacts of resource use has prompted the call for more effective international and national policy regimes. It is expected that environmental crises will be the principal feature of national security and international action in the near future. As Robert Kaplan has argued, at the global level, "it is time to understand 'the environment' for what it is: the national-security issue of the early twenty-first century. The political and strategic impact of surging populations, spreading disease, deforestation and soil erosion, water depletion, air pollution, and possibly, rising sea levels in critical, overcrowded regions like the Nile Delta and Bangladesh ... will be the core foreign-policy challenge from which most others will ultimately emanate, arousing the public and uniting assorted interests left over from the Cold War."²

Canadian resource and environmental policy warrants investigation and concern for a number of reasons. The size and wealth of this country alone are of global significance. Because Canada contains one of the largest land masses and longest coastlines on this planet, and still possesses enormous quantities of fresh water, timber, fish, and mineral and petroleum resources, the policies generated within Canada have had, and will continue to have, a widespread impact on Canada and other countries. Furthermore, Canadians are the second wealthiest citizens on Earth when the value of untapped resources and the relatively low population level are taken into account.

As we will see in Chapter 2, traditional economic assessments of Canada's wealth did not incorporate the value of untapped resources of oil, natural gas, and minerals in their calculations. As a result, in such analyses, Canada tends to rank anywhere from the thirteenth to the sixteenth wealthiest nation on Earth, with an average per capita income of \$20,670.³ However, when the value of human and unused natural resources is included in traditional gauges of industrial output, productivity, and other economic activity, Canada's status rises dramatically. A 1995 World Bank study, for example, indicates that 69 percent of Canada's wealth stems directly from natural resources, with 9 percent from industrial output and 22 percent from human resources.⁴ How these resources are utilized and managed has a direct impact on the well-being and quality of life of all Canadians. As Table 1.1 shows, when this measure is used, Canada ranks second among nations in terms of wealth. This abundance of natural resources is globally significant and is sure to increase in significance as nations continue to alter their landscapes through intensive forms of resource extraction.

Table 1.1

World's wealthiest countries, including ecological capital and population

Country	Wealth per capita (US\$)
Australia	835,000
Canada	704,000
Luxembourg	658,000
Switzerland	647,000
Japan	565,000
Sweden	496,000
Iceland	486,000
Qatar	473,000
UAE	471,000
Denmark	463,000
Norway	424,000
United States	421,000
France	413,000
Kuwait	405,000
Germany	399,000

Source: Peter Morton, "Canadians Second-Richest, Report Says," *Financial Post*, 16 September 1995, 3.

The amount of publicly owned and government controlled, or Crown, lands in this country also makes resource and environmental policy internally significant. Crown land comprises 90.3 percent of the Canadian land base, meaning that the stewardship of a vast majority of land is directly affected by government policy.⁵ The common-property basis of other resources – fish, water, air – means that government policy decisions affect a large and diffuse number of interests in Canadian society.⁶

In recent years, the increase in numbers and types of resource users or "stakeholders" has precipitated heightened interest in Canadian resource and environmental policy processes.⁷ The broad impact of resource use on the public – ranging from employment in resource industries to the health effects of pollution – has expanded the basis of public interest in these activities. The increase in stakeholders has resulted in the expansion of policy networks (those individuals involved in decision making) and communities (those individuals interested in policy outcomes) concerned with resource and environmental issues. Increased demand on resources by competing interests has also occasioned increased levels of conflict between stakeholders, reflected in, and mediated by, the policy process.⁸ Furthermore, heightened demand for more direct public input into policy processes has intensified concern for the responsibility and legitimacy of public institutions involved in resource and environmental policy making.⁹

Demographic changes in Canada have also contributed to a greater concern for the maintenance of environmental quality, while they have increased pressures on the availability and character of resource use. The size of the Canadian population, its distribution, and its density all affect the quality of the environment. Approximately 140 years since Confederation, the Canadian population has grown from 3.7 million to over 31 million persons.¹⁰ Although the fertility rate has generally declined and stabilized over the past century, immigration has contributed significantly to population growth. Population has also been moving west. Higher rates of growth in Alberta, British Columbia, the Yukon, and the Northwest Territories and declines in population growth rates in the Atlantic provinces as well as Saskatchewan and Manitoba both reflect and impact upon resource availability and the landscape. Human settlement has transformed ecosystems from grasslands, wetlands, and forests into agricultural production and urban areas. Urbanization has increased to almost 80 percent in 2001,¹¹ creating additional pressure on systems ranging from waste disposal to air quality and the preservation of biodiversity.

In Canada, the 4 percent population growth recorded from the 2001 census exceeds that of many other developed countries.¹² Acceleration in rates of population growth and economic activity puts pressure on the amount and quality of resources upon which these activities are based. Today's economy is almost seven times larger than that of fifty years ago, and it places additional demands on the environment, especially in regard to industrial processes, resource use, energy consumption, and transportation.¹³

Despite its large size and relatively low population, Canada is not immune from the types of resource and environmental pressures now demanding attention and action throughout the world. The increased scarcity of some resources – as illustrated by the closure of the cod fishery on the east coast, the declines in the West Coast salmon fishery, the acceleration of the number of endangered species, and the predicted shortfalls in timber allotments – indicates the inadequacy of our past policy efforts.¹⁴ In addition, 20 percent of Canada's farmland is deteriorating as a result of modern agricultural practices, 13 percent of our forests can no longer be considered productive, and much of the best farmland in the country is being converted to urban uses.¹⁵

Better understanding of the negative health effects of pesticide use, industrial contaminants, and toxic wastes has also prompted concern about the potential adverse effects, to humans and other species, of pollution, whether industrial, agricultural, or otherwise. In Canada, related health issues ranging from mercury poisoning at Grassy Narrows, Ontario, in the 1950s and 1960s,¹⁶ to the exposure of agricultural workers to pesticides, to the burning of PCBs at Saint Basile le Grand in the 1990s, to chronic concerns about the quality of drinking water (e.g., at Walkerton, Ontario, where

a number of people died in 2000) and air have led many observers to question the effectiveness of current policies and the processes by which they have been developed.

As a result of these growing issues and concerns, increases in the number of stakeholders, greater knowledge of the consequences of environmental degradation, and better understanding of ecological complexity, Canadian resource and environmental policy has been subjected to increasing criticism and pressure for change. The inadequacy of existing policy measures is reflected in deteriorating environmental conditions and increasing resource scarcity. By the 1980s, critics alleged that policies had been developed without due regard to the public interest or ecological concerns and that “special interests,” especially business, were being given preferential treatment in the policy process. These criticisms not only succeeded in delegitimizing many aspects of the existing system of regulation but have also led to demands for new policies and mechanisms to implement them.¹⁷

Understanding Ecological Ideas in Canada

There exist a number of ideas about how we should live “within” our environment. These ideas influence both the nature of criticisms made about existing policies and the articulation of alternatives. The ideas exist on a spectrum that ranges from non-use of resources all the way to complete exploitation. As noted earlier, Canadian resource policy has shifted to a concept of resource management, but it is still located within the context of economic activity, and its analysis has largely been directed toward concerns of the marketplace.¹⁸ It is important to note, however, that the entry of environmental groups into policy processes in the 1960s and 1970s and the continued efforts of women, First Nations, and others to gain entry into resource and environmental policy communities and networks have generated new ideas and policy discourses that are challenging the traditional economic concerns that underlie the resource management paradigm.

As such, these alternative perspectives fall along a broad spectrum from “biocentric” philosophies that challenge what are thought to be the “anthropocentric” fallacies of resource management to the antipatriarchal concerns of ecofeminism. In between falls the less radical vision currently promoted by many governments and international bodies, such as the United Nations, of a reformation of contemporary society in ways that allow for the sustainability of both the human and the natural worlds (see Figure 1.1).

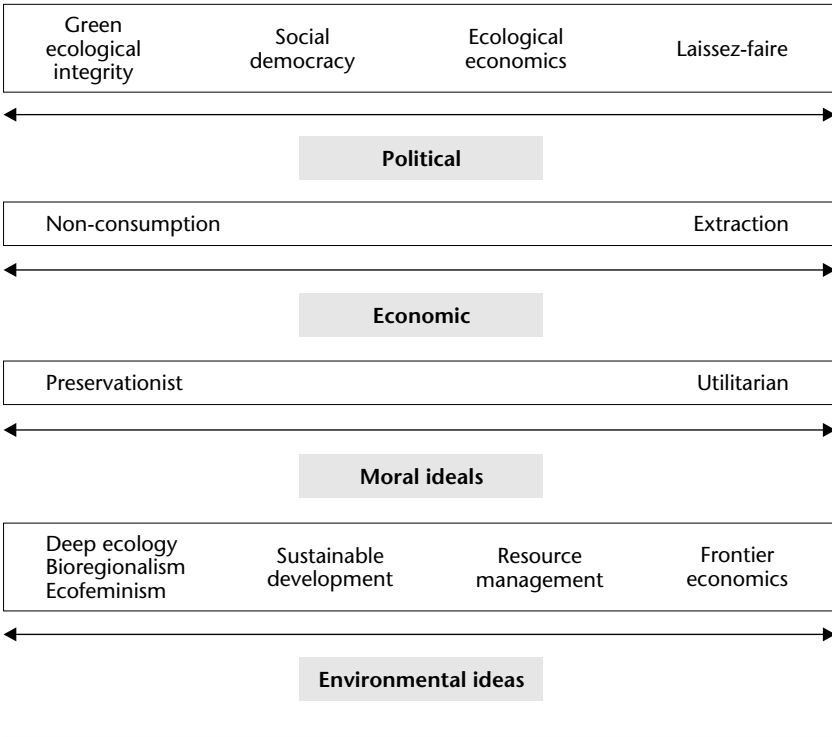
A Spectrum of Environmental Ideas

Deep Ecology, Bioregionalism, and Ecofeminism

The model of deep environmentalism calls for the priority of environmental concerns over market forces. From the perspective of “deep ecology,”

Figure 1.1

The spectrum of environmental ideas



humans are only one species among others, and ecological integrity is the necessary foundation for all human activity. It is concerned less with economic than with ecological viability, and it requires a dramatic overhaul or replacement of the current market economy and of elite representation in order to ensure this viability. Deep ecology is a critique of the anthropocentric perspective that permeates current resource policy, our institutions, and our society.¹⁹ Rather than perceiving human activity as the major and sometimes the only activity on Earth, deep ecologists emphasize our dependence and impact on other species.²⁰ This perspective was inspired by a number of cross-currents in Europe and North America: rapid declines in wilderness, open spaces, and resources in many countries; dramatic increases in human population; and recognition of the limitations of technological development, science, and rationalism. Deep ecologists argue that we, as human beings, must recognize our connections to natural systems rather than understand the natural environment as simply a resource for, and backdrop to, the project of human history.

Deep ecology also supports a shift in resource policy from a “conservationist” to a “preservationist” approach.²¹ Resource conservation is directed primarily to human needs (hunting, ranching, forestry) rather than to the processes of ecological systems (habitat protection, oxygenation, water filtration). Under the conservationist approach, the natural environment remains a resource to be used by human beings, with its value primarily derived from the marketplace. Deer and elk are thus valued in terms of revenues from game licences, while forests are managed in terms of stumpage rates and the revenues from annual allowable cuts. The interdependence of all organisms and their additional aesthetic, cultural, or other values remain hidden or secondary concerns.

Resource preservation promoted by deep ecologists, on the other hand, reflects a non-consumptive approach to resource management, one that would maintain natural systems for purposes additional to extraction, production, and consumption. Within a preservationist model, values other than human benefit and, especially, economic gain are formally attributed to nature. Reasons for protecting wilderness thus include not only the economic value associated with tourism but also a range of values such as recreation, aesthetics, habitat preservation, and biodiversity.

Several discussions central to deep ecology deal with the relations of human beings to other species and the complexity of ecological explanation, themes appropriate to policy analysis but usually overlooked in the assumption of manifest (i.e., human) destiny. For instance, if we adopt a perspective of “biospheric egalitarianism,”²² all forms of life have intrinsic value, and humans are of neither greater nor lesser value than other species, a view that seriously challenges the traditional human-centred premise of resource use. The deep ecology position questions the primacy of human actions and interests, a primacy often taken for granted, and challenges the basis and process of resource policy in its present form. A deep ecologist understands the consequences of forestry practices, for example, as including not only economic gain but also soil erosion and habitat decline for spotted owls and salmon, among other species.

The deep ecology approach is compatible with a number of alternative strategies for supporting human life that respect ecological integrity and are relevant to policy formulation and implementation. One theme is an emphasis on decentralization, in which local forms of organization and control of technology are considered more appropriate to environmental protection than current large-scale bureaucratic enterprise, because they are thought to be more responsive and adaptable to local requirements. Another theme is a preference for appropriate technology, typically low in ecological impact and oriented to specific and local needs, rather than large-scale use.²³ In contrast to megaprojects such as hydroelectric generation sites (James Bay, the Columbia River, the Peace River) or nuclear power plants,

for example, small-scale and “soft,” non-fossil fuel projects are preferred. The use of solar energy, wind generators, and thermal energy, with smaller impacts and costs, is promoted.²⁴

Bioregionalism is another aspect of deep ecological thinking; it integrates an ecological perspective with a rationale for decentralization and provides an alternative basis for ecological governance.²⁵ Bioregionalists argue that present institutions, especially our political systems, are based on bureaucratic rather than ecological or even human needs. The key elements and the boundaries of ecosystems, they argue, are not reflected by these institutions, which means that political and economic decisions do not reflect the unique characteristics of an area. A political constituency, for example, may include portions of the coastal rainforest as well as an interior arid zone, and the forestry and agricultural policies developed for one may be inappropriate for the other. Bioregionalists argue that decisions regarding mineral licences, the siting of industrial mills and factories, and the zoning of land would more adequately support and protect the needs of local citizens and the environment if they were made by residents of the area rather than by shareholders of a corporation or by remote political representatives.²⁶

Deep ecology challenges the apparent neutrality of contemporary resource and environmental policy by recognizing its anthropocentrism, not only in its substantive interests but also in its processes. This view has helped to shift policy discourse from a narrow resourcist point of view to more ecologically conscious perspectives. The process of economic development and the movement from a rural primary harvesting and extraction economy to an urban and more diverse economic base have provided a basis from which this perspective can now be articulated. As people enter into more diverse relations with natural environments, similar policy ideas will continue to develop.

One of these new ideas associated with enhanced urban experience is ecofeminism. Ecofeminists focus on the common experiences and interests of women and nature. They endorse two basic principles: the affinity of women to the natural environment due to their common productive and reproductive functions, and their mutual subordination and control by patriarchal systems of power.²⁷ Parallel contributions are made by women and nature to the support of social and ecological systems. Women perform both reproductive and other labour: they give birth to and nurse their young, they socialize and care for children, they support and nurture family members, and they perform the majority of domestic work. The caretaking work that women do, and their responsibility for the mechanics of daily subsistence, mean that they are more likely to be aware of, and be directly dependent on, ecological systems, especially women in non-urban environments. Other species also reproduce and care for their young, thereby providing the infrastructure – oxygenation, water purification, soil enrichment –

through which human and other forms of life are made possible. This engagement in the maintenance of life-support systems provides the work performed by women with a link to nature.

While radical ecofeminism celebrates the contributions of women and nature to survival, it also recognizes their joint oppression by patriarchy. The control of women's reproductive rights by the church and the state, and the low wages and poor working conditions experienced by women, it is argued, reflect their oppression by the interests of men. In the view of many ecofeminists, the management of nature in practices ranging from hydroelectric megaprojects to trapping and hunting reflects the parallel patriarchal exploitation and devaluation of Earth/household work.²⁸

Yet a potential "essentialism" – the biological association of women with reproductive and domestic responsibility – is problematic for many feminists who understand women's gendered roles as produced by social organization and socialization. A more critical ecofeminist position argues that women's roles are limited by the larger context of class and gender inequality. The dual subordination of women and nature reflects the combined power exerted by patriarchy and capitalism. Male elites and corporations benefit from the activities of natural ecosystems, which include not only the provision of raw materials but also the maintenance of an environment – air, water, soil – on which all human life is based. In a global extension of this perspective, development processes are viewed as especially injurious to women, because male ownership of increasingly privatized land and transitions to market-based agriculture have further eroded women's status in many developing countries. Moreover, the exploitation of women and nature is linked through the global expansion of development, which has "destroyed women's productivity both by removing land, water and forests from their management and control, as well as by the ecological destruction of soil, water, and vegetation systems so that nature's productivity and renewability have been impaired."²⁹

Women's underrepresentation in policy arenas thus reflects more than oversight and institutional lag. Rather, it reflects an ongoing lack of recognition of the systemic ways in which women's relations to the environment are invisible and devalued. The additional representation of women as actors in the policy process begins to address ecofeminist concerns, yet the ecofeminist perspective would also extend the boundaries and content of resource and environmental policy to include a broader array of ideas, with great affinity to deep ecological and bioregional thinking.

Sustainable Development

The accelerating scope and pace of change in economic development have brought about increased wealth, but they have also brought about ecological disorganization and increasing social polarization. The term

“sustainability” implies the possibility of reintegrating economic, social, and environmental considerations, although there is much disagreement about both these objectives and the strategies for achieving them.

The mid-range perspective identified in Figure 1.1 is sustainable development, which incorporates both ecological and economic factors. “The sustainable development approach holds that resources must be treated on the basis of their future, as well as their present, value, and offers genuine hope of economic development without environmental decline.”³⁰ As we will see throughout this book, this principle captures the essence of the increasingly popular Canadian resource and environmental perspective: an attempt to reconcile the needs of humans with those of other species and to provide for future ecological as well as human preservation. Whether it can be realized in practice, however, is another matter, at least partially determined by the political economy of Canadian resource use.

Somewhere in the middle of the spectrum of ecological ideas is the idea of sustainable resource management. The mainstream version of sustainability is based on a neoclassical economic model that emphasizes individual choice and the market regulation of goods and services. The harnessing of development to an environmentally enlightened market promises to provide new business opportunities, thereby fostering greater potential for the trickling down of wealth (through all social and ecological layers) through increased and appropriate employment and investment. New “green” products and technologies, propelled by a market demand, are viewed as compatible with the protection of environmental quality.³¹

Neoclassical models assume that the primary issues on the sustainability agenda – environmental degradation and socioeconomic inequality – can be addressed and corrected by market forces and government remedies.³² But as critics have noted, neoclassical economics avoids the long-term consequences of environmental degradation – the diminishing vitality of the resource base, the extinction of species, and the social consequences of excessive pollution – such as increased costs to human health.³³

For many observers, however, the sustainability of ecological systems and the redistribution of wealth are antagonistic to growth and the continuing privatization of profit. While neoclassical economics understands the economy as separate from the environment, an ecological perspective views economics as integrated with, and dependent on, the ecosphere. Ecological economics encompasses a spectrum of approaches that ranges from the incorporation of environmental factors into mainstream equations to a critique of mainstream market approaches to natural environments.³⁴

In this perspective, resources are perceived as a form of “ecological capital,” and economic growth can be understood as the transformation of ecological to economic capital through the process of resource extraction. International trade can be viewed as the “expropriation of carrying capacity.”³⁵

Free trade, in turn, becomes an oxymoron, because resource extraction, while counted as income, becomes a debit to species survival. The long-term and side-effects of industrial production are considered externalities and displaced to other budgets in standard corporate accounting practices. The costs of mitigating these environmental externalities – such as pollution, the deterioration of air, water, and soil, and the extinction of species – are passed on to, and absorbed by, the general public, other budgets, and other species.

While standard economic models and accounting systems have traditionally failed to take into account ecological values, ecological economics “internalizes” them. In an ecological economic approach to sustainability, the regenerative costs of ecological maintenance, the remediation of degraded land, and the mitigation of toxic pollutants are included in economic costs. This approach reshapes the economics of the environment by reducing the traditional profit margin, extending pricing, and “diversifying” the accounting system to grasp a much wider environmental context of economic transactions.

The concept of sustainability represents an ideological shift within the ranks of economists and many government officials that begins to integrate ecological and social concerns in policy recommendations and evaluations. Sustainable development is expected to “meet the needs of the present without compromising the ability of future generations.”³⁶ Sustainability explores the implications of contemporary socioeconomic patterns for long-term human and ecological survival. The ecological economic framework offers a vision of a transition to a sustainable future that is acknowledged to be difficult but possible for Canada to forge.

The transition to a sustainable future requires at minimum a departure from a tradition of market-driven economics to one increasingly concerned with maintaining the viability of social and ecological systems. This transition will require a number of shifts, especially the continuing diversification of the economy, the recognition and empowerment of additional actors, and the incorporation of an ecological economics, and indeed an ecological approach, into all stages of the policy process.

As Hutton states, from an ecological perspective, we face “a massive ‘sustainability deficit,’ i.e., a legacy of costs and resource depletion which must now be seriously addressed, and which includes badly eroded stocks of natural capital, and widespread environmental degradation, as well as major social, economic, and fiscal deficits.”³⁷ This situation is true throughout Canada. Timber and fish stocks especially have been depleted, while consumption patterns have increased. Resources have been exploited at levels exceeding their replacement, and replenishment of this stock of natural capital will require new investments that may be increasingly difficult to secure in an era of diminishing capital. As Paul Hawken has optimistically put it, “At some time in the relatively near future we will achieve a ‘balance’

between what we are consuming and the capacity of the earth's ecosystems to provide those needs, although under existing models of production and consumption, it is likely to be far different and cause far more suffering than we are presently willing to admit ... A restorative economy means thinking big and long into the future."³⁸

Resource Management

While the notion of sustainable development is entering into consideration of policy as it stands now, policy decisions in Canada regarding the use and extraction of resources and environmental policy remain situated in a market context. The ideas and interests of ecofeminism and deep ecology are generally considered to be "outside" the current policy paradigm and therefore are less likely to be successful in influencing public policy decisions. Most analyses of policy decisions regarding resources and the environment take the overarching concern of the market as their starting point.

The resource management approach to environmental thinking recognizes the interdependence of humans and the environment and increasing concern about environmental degradation, such as pollution, but in a very limited way. The need for the conservation of resource stocks is identified for primarily non-ecological reasons. A broader, more ecological approach was introduced in some sectors, recognizing interdisciplinary approaches as well as the interconnections between different flora and fauna and their supporting environments. As well under resource management thinking, "policies were introduced to make polluters more accountable for the damage they caused ... and the environmental implications of resource extraction were assessed to mitigate or limit environmental damage."³⁹

In this context, it is important to recall that the concept of "resources" represents a particular socioeconomic construction of ecological systems. The primary idea driving natural resource use in Canada in recent years, and hence significantly affecting environmental policy discourse, has been that of resource management as the allocation of public resources to private industry. Resource management requires an understanding of the socioeconomic and institutional contexts in which policy decisions are made. One barrier to resource management has been the complexity and fragmentation of policy issues and jurisdictions that deter efforts at a comprehensive and unified analysis. Resources include energy and mineral reserves, fish and wildlife, agricultural and forest lands, as well as water and air. Consider, for example, the difficulty of comparing charges for timber-harvesting licences in the Temagami region of Ontario to provisions for regulating toxic discharges of chemicals into the St. Lawrence River or fines for poaching bighorn sheep in national parks in Alberta. The land base itself is varied, representing a large number of distinct geographic ecosystems, most of which

do not conform to the numerous municipal, regional, provincial, and territorial political boundaries that formally demarcate them. Different levels of government, and a range of ministries, administrative arrangements, and statutes, comprise a significant barrier to a comprehensive policy analysis. Changes in government and in constellations of participatory politics also make it difficult to understand general trends in the actors and interests represented in the policy-making process.⁴⁰

In Canada, unlike many other countries concerned with issues such as urban pollution or toxic wastes, the key environmental issues have been related to resource management. These issues have included the designation and protection of wilderness areas and wildlife habitat, pollution regulation, herbicide and pesticide management, and disputes over extraction methods in the timber, fishing, and mining industries. Resource management thus includes the monitoring, facilitation, and negotiation of resource consumption patterns, ranging from simple extraction to other, and increasingly “multiple,” uses such as tourism. Moreover, resource management policies have not often been publicly debated because such exposure in the past has served the interests of neither the state nor resource industries. Public clamour about the issuing of timber licences or pollution regulations slows down a policy process that industry views as already mired in bureaucracy. The technical and legal nature of many resource and environmental issues also contributes to the complexity of the discussion and may obscure the political issues and decisions on which they are based, distancing policy discussion from the public.⁴¹

Resource management has been treated in Canada, as in other nations, as an “applied” science, oriented to ecological research and its application by different administrative agencies.⁴² But much of the research on which government policies have been based has been produced by industry, and – as we will see throughout this book – the private sector has been extensively involved in the policy process in various capacities.

Frontier Economics

Historically, the large size of the Canadian land base and the relatively small population, especially within a global context of far greater human-to-land densities, have curtailed concern about environmental degradation, resource supplies, and environmental carrying capacities. The southern and urban concentration of human settlement in Canada also distances the majority of citizens from direct experience with, and concerns about, the impacts of resource extraction in “northern” areas. Indeed, 68 percent of Canadians live within 100 kilometres of the Canada-US border. Only 10 percent of the country is permanently settled, and only 1 percent of the land is used for urban residential and industrial activity.⁴³

As scholars of Canadian literature and culture such as Northrop Frye and Margaret Atwood have suggested, the “Canadian experience” has been characterized as a struggle of survival against an alien and antagonistic environment.⁴⁴ In this context, Canadians’ historical lack of concern over issues of environmental degradation is consistent with concerns over the maximization of conditions for resource exploitation.

Economic dependency on large-scale resource exports has reinforced a *laissez-faire* approach to resource and environmental policy in this country. With many jobs provided by resource extraction, both labour and governments may be relatively quiescent toward the demands of industry for permits, licences, and exemptions from regulations. The export of resources by “free-range” transnational corporations is viewed as contributing to national survival, while the threat of losing corporate investment deters dissent.⁴⁵

Frontier economics is a mode of environmental thinking that characterizes much of the Canadian legacy. In this model, “the industrialized world tended to see the environment as an infinite supply of resources and a bottomless sink for wastes ... The economy was seen to exist in almost complete isolation, separate from the environment. Resources were seen as being abundant. So, for example, an increased demand for forest products could be met simply by building a new mill. The more pressing problem ... was the scarcity of human capital, not of resources. Consequently, the destruction of the environment made little difference.”⁴⁶

The Evolution of Canadian Natural Resource and Environmental Policy

In terms of Figure 1.1, the political economy would be characterized by a *laissez-faire* economy with a high emphasis on extraction, the dominance of an elite group of decision makers (industry and government), and a utilitarian philosophy.

From a political economic perspective, the transition in Canada from resource to environmental policy would reflect not only changing material conditions but also evolving ideological perspectives. As this brief survey of environmental modes of thinking has shown, resource and environmental policy making encompasses a wide range of ideas and issues, often concerning multiple resources in the context of an integrated form of development or use. Its concerns are not exclusively those of humans but include other species, in a range of activities that often extend beyond the marketplace.⁴⁷ While at one point in time resource policy may have been identified solely in terms of mineral reserves or timber allocations, environmental policy also incorporates the impact of mining or logging on salmon habitat or on human health, among other issues.

Contemporary Canadian resource and environmental policy reflects a number of considerations raised in this introductory discussion. First,

because Canada has a large land mass and a relatively small population, the country has avoided, or postponed, many of the sharp confrontations over pollution and degradation of the urban environment that have been a feature of smaller or more populous countries. Second, because Canada has relied on natural resources to generate much of its economic wealth, this reliance has distinctly coloured Canadian attitudes toward the environment. Resource extraction and processing support a good deal of the labour force, and efforts at environmental protection or mitigation in Canada begin with the understanding that resource harvesting enjoys a great deal of public support. Third, international events have had a major impact on Canadian environmental policies, organization, and attitudes. Canada has been heavily influenced by ideas, events, and organizations in the United States, organizations that have periodically moved into Canada and brought with them a range of new ideas and sentiments as well as new concepts of regulations and laws designed to address resource and environmental problems.⁴⁸ More recently, events at the international level, specifically at the United Nations, have also had a major impact on Canadian policy making. Nevertheless, the Canadian mix of policies and attitudes is not an exact copy of the American, and international initiatives have not been adopted holus bolus. Rather, Canada has developed a distinctive approach to the environment conditioned not only by the examples of its powerful neighbour and by international pressures but also by its own unique social, cultural, political, and economic experiences.

There is a broad spectrum of opinion in this country about the prerogatives and interests involved in developing and affecting the contents of any new Canadian approach to resource and environmental management. While governments' role in resource management is authorized by the formal constitutional definition and allocation of legislative powers, many believe that debates over the direction of the management of resources should only include those who have a vested interest in the resource involved. While many Canadians believe that Crown lands reflect a public ownership guaranteeing the future prosperity of resources, others believe that private ownership of lands and forests would better ensure long-term protection and avoid a "tragedy of the commons" – the collective and cumulative devastation of commonly owned property.⁴⁹ Many Canadians also believe that Native peoples should bear responsibility for managing their traditional lands, yet land claims remain unresolved and contentious. At the heart of these debates is the question "management by whom and for whom?"

Canadian natural resource policy has changed over the past several decades to emphasize multiple use, concerns about sustainability, and integrated resource management.⁵⁰ The overall principle governing this use remains, however, an anthropocentric utilitarianism, the belief that human use remains central to the organization of resource and environmental

management. From this perspective, as Max Oehlschlaeger argues, “the wilderness in whatever guise is effectively reduced to an environment, a stockpile of matter-energy to be transformed through technology, itself guided by the market and theoretical economics, into the wants and needs of the consumer culture.”⁵¹ The conservation of resources under this model assumes a reliance on science to alter and control natural systems. It also ignores the inequalities associated with the distributive mechanisms of the market economy as “consumption is equated with pleasure, and high rates of economic throughput are thus equated with the good life.”⁵²

This “resourcist” paradigm has increasingly come under attack from environmentalists promoting ideas ranging from the tenets of deep ecology to those of sustainable development, but all include concerns about the relationship of human beings with the natural world.⁵³ These concepts take into account more fully the links between different systems, including economic, ecological, and social, and attempt to meet these integrated systemic demands in resource and environmental policy making. They also attempt to temper anthropocentrism with biocentrism as a fundamental perspective from which policies and their results are to be formulated and evaluated. For instance, clear-cut logging and ensuing habitat loss are understood to be a threat to the survival of species such as the marbled murrelet, thereby introducing additional, non-market factors into public policy making. What was previously understood as primarily an economic activity also becomes an issue of the preservation of biodiversity, the maintenance of aesthetic values, the intrinsic value of all living things, and other broad environmental concerns.

Overview of the Book

This book takes on the difficult challenge of attempting to identify characteristics of Canadian resource and environmental policy, based on historical references, contemporary examples, and smaller case studies, and to provide a critical framework for the study of emerging resource and environmental policy issues.

Canadian resource and environmental policy reflects changes in the social, economic, and political fabric of the country, as well as shifts in our understanding of the interests served by resource extraction. Resource and environmental policy is forged by a variety of policy actors dealing with constantly changing knowledge, information, and technology. It is not surprising, given this complexity of actors and variables, that the identification of typical Canadian ways of dealing with resources and the environment – the Canadian resource and environmental policy style – and the specification of how and why that style changes should be a challenge. Yet it is important that we rise to that challenge, given increased pressures on natural systems, additional numbers of stakeholders, and the accelerating impact

of transnational actors and global forces on the Canadian landscape, all of which call for policy responses.⁵⁴

The discussion in this book will show how Canadian resource and environmental policy has evolved over a long period of time to become increasingly interventionist and extensive. Governments have shifted from espousing the unfettered exploitation of resources in the early years of the twentieth century to a more active, if evolving, conception of environmental stewardship in the twenty-first. These changes occurred slowly as the resource sector developed and, in the modern period, as existing Canadian resource and environmental policies were challenged by environmental activists and other emerging stakeholders. The book discusses this evolving political economy of resource production in Canada, outlining the significant political actors, their motivations, and their actions in bringing about changes in policy.

Plan of the Book

From a political economy perspective, public policy making is an activity of government that fuses knowledge and interests.⁵⁵ From this perspective, policy making in the resource and environmental area is largely about the struggle between different societal actors attempting to establish, maintain, or increase their share of the material wealth created by human activity, wealth generated to a great extent by resource extraction and use. But policies also reflect the struggle between adherents of different perspectives on the ways in which social life should be conducted, the character of relations between humans and their physical environment, and the quality of that environment. The analysis of policy making requires that we know what material interests exist in a sector, what sets of ideas compete for prominence, and what actors and processes are engaged in policy formation.

In this regard, it is important to note that conflicts over knowledge and interests are reconciled, or mediated, through political institutions and the policy processes of government. To aid in the understanding of policy making, the book introduces the student to the notion of a “policy cycle”: a staged, sequential, and iterative model of the policy process. It explores the character of Canadian resource and environmental policy making at the different stages of the policy cycle and asks about the potential for, and directions of, policy change.⁵⁶ In so doing, it focuses attention on constellations of policy actors who participate in resource and environmental policy making, including civil servants, industry representatives, members of environmental organizations, and others. The role that these actors, processes, and institutions play in creating a unique policy style is highlighted to make comprehensible the pattern of policy change – and the lack of it – in this area of government activity.

The text emphasizes five themes in the study of this significant sector of Canadian life. First, it adopts a political economic perspective on the general context and development of Canadian resource and environmental policy. Second, it provides an analysis of the different ideological perspectives and material interests that motivate policy actors and that both generate and legitimate policies in this sector. Third, it reflects an administrative concern with the development and implementation of resource and environmental policies. Fourth, it explores the substantive issues in policy analysis that pertain to resource and environmental policy making. And fifth, it considers the future directions of policy within the context of dynamic social, economic, and ecological systems.

The book will show how the continued support of resource management regimes that foster the maximization of commodity production, despite the emergence of new ecological ideas and actors, represents a conundrum for Canadian resource and environmental policy makers. The increasing diversification of the Canadian economy has introduced new and competing interests into existing economic and policy equations but has not yet fundamentally altered their configuration. What is required to move the Canadian policy style toward a more ecologically sensitive paradigm? What are the constraints impeding policy change?

A policy analysis rooted in political economy allows us to better understand the conditions under which resource activities take place, as well as the consequences of their development for environmental policy making. This approach allows us to better understand the origins of policy change and to better predict what future policy changes might occur.

It is the aim of this book to illuminate the elements of Canadian policy making in this critical sector and to provide answers to some of these key questions. It will do so by outlining both the political economy of this sector and the nature of the policy discourses that have emerged, as well as the manner in which both knowledge and power, or interests and ideas, are brought together in the public policy process. By examining both material interests and policy ideas in this sector, we can better understand the complexities of government policy making and, in doing so, grasp the essential dynamics of policy processes and the potential for policy change.

The Kyoto Protocol

Throughout the text, we have inserted short text boxes that discuss the evolution of the Kyoto Protocol, an international agreement that requires industrialized countries to reduce greenhouse gas emissions. Canada's response to the issue of global climate change is informative, and the evolution of the protocol is interesting for our purposes because it allows us to demonstrate the complexities of jurisdiction, international and domestic political forces, agenda setting, policy formulation, decision making, policy implementation, and evaluation, all within a socioeconomic context that dictates a focus on economics rather than ecology.