FOREST ISSUES IN CANADA:

TOWARD A PRODUCTIVE DISCUSSION ON DIRECTIONS FOR CANADA'S FORESTS INTO THE 21st CENTURY

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June 1997

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Executive Summary

Forest policy in Canada is constantly under development at the local, regional or national level and reflects the diversity of Canada's forested ecosystems and land ownership. The Canadian Council of Forest Ministers developed the first comprehensive national forest strategy in 1987 and a second one in 1992. As part of their mandate the Council, with input from a wide range of interests, will develop a new national forest strategy that will guide Canada's forest sector into the 21st Century. The purpose of this paper is to provide background information and stimulate conversation during development of this new forest strategy.

Global trends and events that shape forest management in Canada include, among other influences: high demand for wood-based products in a volatile market place; competition from fast-growing plantations in other countries; and climate changes that are difficult to predict. In addition there have been major debates in Canadian and European media over alleged mismanagement of Canada's forests. Accusations from the USA about price subsidies for Canadian lumber have also been prominent Finally, Canada has participated vigorously in developing many international agreements about the sustainability of the world's forests and other ecosystems; dialogue continues about criteria and indicators of sustainability and the future of forest management.

Canada's economy is in flux as governments at all levels move to reduce both debts and deficits. Higher stumpage and other Crown dues are being charged to companies and the private sector is expected to pick up more of the tab for forest management on public owned forests. At the same time, most forest ministries are severely reduced in staff and programs. For its part, the Canadian public continues to express strong desires to have input into forest decisions at all levels, and has many opportunities to do so.

Issues in forest management have focussed most recently on large scale ideas including: ecosystem management, biodiversity conservation, mimicking natural disturbance patterns, and certification. Over much of Canada the emphasis is on the structure and function of ecosystems and managing for a wide variety of values. Non-timber values are becoming more important as the debate over how to manage forested land intensifies.

Within the context of expanding values of the forest, wood-products companies are confronted with intense competition in a global market place. The adequacy of the fibre supply, including possible shortages, raises serious questions about inherent timber growth rates, and road access. The choice to increase management intensity on good sites close to mills may be both economical and ecologically sound, and must be carefully discussed and reviewed.

The challenge to manage forests in a sustainable manner and maintain the wood-products industry in a sound financial condition is important to all Canadians. We hope that this paper will provoke healthy and productive debate over how Canada should meet these challenges.

1. Introduction

Forest policy in Canada is constantly under development. Often, the policy developments are at the local or regional level, reflecting Canada's incredible diversity of forest ecosystems and human communities, and the links between them. Sometimes they are provincial, recognising that the bulk of the jurisdiction over Crown forests is within the provincial domain. Other times they are national, given the vital roles played by the federal government in forest matters and the affairs of the forest-products sector. Yet other times they are international, as Canada, home to 10% of the world's forests (by area), plays its role in global forest dialogues.

During the 1980s, the Canadian Council of Forest Ministers (CCFM) was formed. One of its early achievements was sponsorship and development of Canada's first comprehensive National Forest Sector Strategy of 1987. The 1987 strategy represented the first national consensus on the directions the forest sector needed to take to be on the path toward sustainable development. The 1987 strategy was followed five years later with another, the 1992 National Forest Strategy, with notable improvements in both process and content. Regarding process, the 1992 strategy was, by comparison with its predecessor, much more strongly based on consensus of a wide variety of interests, and contained commitment statements rather than merely recommendations. On the content side, the 1992 strategy paid unprecedented attention to ecological and social issues in forest management, with an overall theme of forest sustainability.

It is time once again to revisit the national forest strategy, revising or replacing the 1992 version with one that will take Canada's forest community proudly and confidently into the 21st century. The process again will be one of broad consultation and consensus-seeking. This report has been prepared to provide readily accessible information on a wide range of issues that may need to be addressed in a new national forest strategy. Its purpose is to set the policy-development context for Canada in 1997, and analyse key issues that will doubtless be raised in the discussions and debates leading up to formulation of the new strategy.

2. Policy Setting and Context

Before delving into the vast array of issues that need to be considered in a new national forest strategy, it is necessary to reflect on the setting and context within which forest policy may be formed.

The question can be put this way: what are the major national and international economic, social, technological, environmental and political developments (including trends, events and policy activities) of the 1990s that affect the forests of Canada and the Canadian forest sector? We explore some of these in the following paragraphs, with particular emphasis on developments of 1992 and onward.

2.1 The International Scene

2.1.1 Trends and Events

Turning first to economic matters, several factors are relevant to Canadian forests and related industries. The Canadian dollar seems settled into a pattern of trading at roughly US\$0.70-0.75, a situation which favours exports of Canadian forest products. Demand for wood-based products is still climbing worldwide, and is expected to continue, especially for paper products. Given the overwhelming contribution of wood-based products exports to Canada's overall balance of trade, this bodes well for the Canadian economy. However, within this happy situation is the phenomenon of market volatility, which seems continuously to plague the forest-products sector, particularly for commodities such as pulp and dimension lumber.

Competition from producers in other countries will increase as new wood supplies, mainly from fast-growing plantations in the tropics and warm temperate areas of the world, become available. While quality of Canadian wood-based products is high, aggressive marketing and cost control will be needed. For the next decade or two, there is little chance that Russia, with the world's largest storehouse of coniferous fibre, will became a major exporter of forest products; problems of governance, economic stability, and infrastructure are major obstacles. Relations between Canada and USA regarding lumber trade have been, to the outside observer, rather puzzling. Perhaps the latest agreement that reduces the amount of lumber that can enter the USA duty-free has achieved temporary stability. On other fronts, we witness a continuing debate, centred in Europe, over the acceptability of Canadian wood-based products on the basis of alleged mismanagement of Canadian forests.

Regarding the global environment, the spectre of climate change looms larger than ever, if one accepts the consensus of the world climatological community and takes signs from what seem to be freak weather-related phenomena like floods and fires around the world. Canada must take the future of the global climate seriously, on one hand because our forests (comprising about 10% of all forests) play a vital role in the global carbon cycle (Apps and Price, 1996), and on the other hand because our northern latitudes are expected to experience the strongest influences of a changing climate. This may have dramatic effects on Canada's forests and the economies they support.

2.1.2 Policy Developments

Shortly after the National Forest Strategy was accepted in March 1992, Canada participated vigorously in the United Nations Conference on Environment and Development (UNCED). UNCED produced four instruments for global cooperation on sustainable development: (a) the Framework Convention on Climate Change (FCCC); (b) the Convention on Biological Diversity (CBD); (c) the so-called statement of Forest Principles; and (d) Agenda 21. All of these instruments, not only the Forest Principles, implicate forests in a major way. Agenda 21

speaks to halting deforestation, especially in the tropics and warm temperate regions, the CBD recognises forests as a major storehouse of biodiversity, and the FCCC highlights the key role of forests in the global carbon cycle. Canada has aggressively signed on to all these international initiatives, and has moved in various ways to try to implement their requirements.

Forests seem to be commanding the lion's share of international attention to the global environment in the 1990s. Several international initiatives are underway to establish criteria and indicators of sustainable forest management. Canada played first host to an initiative for non-European boreal- and temperate-forest countries, work that has become known as the Montreal Process (The Montreal Process, 1995). Other influential international dialogues on the future of the world's forests include those of the UN-sponsored Intergovernmental Panel on Forests, the World Commission on Forests and Sustainable Development under the auspices of the InterAction Council, and the Forest Stewardship Council with its recently published Principles and Criteria for Natural Forest Management (Forest Stewardship Council, 1995). Canada and Canadians have played a critical role in the development of all these bodies, and will be affected by ultimate outcomes of each. Should the widespread calls for development of a Global Forests Convention, to succeed the UNCED Forest Principles, come to fruition, Canada will indeed be there as a major player.

2.2 The Domestic Scene

2.2.1 Trends and Events

Canada's economy, for both the public and private sectors, is in flux. Governments at all levels are moving strongly to reduce their annual deficits, with an eye to eventual elimination of debts. The means for such accomplishments include both revenue generation and cost cutting. The revenue-generation side of the equation is resulting in higher fees being paid for wood harvested on public land. The cost-cutting side means that the private sector is picking up more and more of the tab for management of publicly owned forests. At the same time, most forest ministries are being hit hard in this climate of severe fiscal constraint with large reductions in staff and programs.

In the private sector there is a move toward consolidation of ownership of many forest-products manufacturing firms. This domestic trend follows one already well underway internationally, especially in USA and Europe. There are continuing cries for the Canadian industry to move more strongly toward value-added products, partly to create more jobs, partly to reduce vulnerability to commodity price swings, and partly to increase economic gains from what many consider to be a tight wood supply. Production rates per worker are still increasing, with the unfortunate side effect of reducing the number of workers needed in the forest-products sector.

For its part, the Canadian public continues to express strong desires to have input into forest decisions at all levels.

Indeed, it is being given many opportunities to do so. Society's demands for more attention in forest management to non-timber values is increasing, and the new management paradigm centred on ecosystem sustainability is finding continued public favour. An overriding theme here is implementation of gentler forms of forest practices, assisted by advances in technology such as cut-to-length timber harvesting machines that can leave more slash on the harvest site and cause less soil disturbance than traditional harvesting equipment.

Further on the environmental front, huge amounts of money have been put into environmental cleanup and pollution-control technology in Canadian pulp and paper mills, along with major investments in recycling capacity. Trends in woodlands operations include a continuing emphasis on conifer fibre, but increasingly companies are using more non-coniferous resources, especially from the boreal forests. Timber-harvest levels seem to be relatively stable in some provinces, while others are considering expansions (e.g., the prairie provinces), and yet others declines. Annual cuts in BC have been coming down during the 1990s, probably as much as anything due to implementation of a new and stringent Forest Practices Code.

Developments in national governance make the future of the forest sector uncertain. We have recently witnessed the end, whether temporary or permanent, of a series of handsomely funded federal-provincial development agreements which sponsored a great deal of positive activity related to forests. In 1993, Canada's second attempt at a full-fledged federal forestry department came to an end, and the Canadian Forest Service, this time under the new Natural Resources Department and much downsized, was reinstated. What implications there are for Canada's forests and the forest sector from the national unity problem remain to be seen.

2.2.2 Policy Developments

2.2.2.1 National Level

Forests have commanded significant attention in a series of national policy developments since the early 1990s.

The Canadian network of model forests was established, along with several model forests abroad. The domestic model forests have just been through a period of renewal for another five years (1997-2002). In harmony with and response to the Montreal Process, the CCFM developed and published a first set of criteria and indicators for sustainable forest management (CCFM, 1995). Under the auspices of the National Round Table on Environment and Economy, a Forest Round Table on Sustainable Development completed a set of deliberations that resulted in a published set of principles for sustainable forest management (Thompson and Webb, 1994). The Parliamentary Committee on Natural Resources investigated the state of forest management in Canada, and reported that Canada is a model forest nation in the making (Nault, 1994). A standing committee of the Senate is, at the time of writing, also investigating the state of Canada's forests. Finally in this list of examples, the Canadian Standards Association recently developed an environmental management systems standard for sustainable forest management (CSA, 1996a; 1996b).

2.2.2.2 Provincial and Territorial Level

It is impossible here to make a comprehensive list of all the forest-policy developments of the 1990s in each province and territory. Each political unit is making its own progress as the citizens and governments deem necessary. Selected highlights are reported here. Regarding sustainable development round tables, those in New Brunswick and Ontario commissioned special forest-oriented subgroups to make special inquiries (Forest Sectoral Committee, 1990; OFPP, 1993), and that in Manitoba implemented a special forest-sector consultation (Manitoba Round Table on Environment & Economy, 1990). Comprehensive forest-policy inquiries have been completed in Ontario (OFPP, 1993) and BC (BCFRC, 1991). Consultation-based forest-policy improvements are underway in Alberta, which seeks a forest-conservation strategy (Alberta Forest Conservation Strategy Steering Committee, 1997), and the Yukon Territory, which is developing a new forest policy (Yukon Renewable Resources, 1995). New forest legislation has been established by several jurisdictions, e.g. Ontario's Crown Forest Sustainability Act of 1994, and the Forest Practices Code Act of BC of 1994.

The links between environmental assessment processes and forest-management planning have been strengthened in several jurisdictions. The Newfoundland Forest Service (1995) recently improved its environmental assessment work with adoption of what it calls an adaptive ecosystem management process. The hearing for Ontario's Class Environmental Assessment for Timber Management on Crown Lands (OMNR, 1987) came to an end in 1992, and the Environmental Assessment Board's subsequent judgement (Koven and Martel, 1994) led to numerous changes in Ontario's approach to forest management. Environmental assessments have been and are being prepared for forest-management plans in both Manitoba and Saskatchewan.

Land-use allocation exercises that include the public as members of planning teams are also a feature of the forest-policy scene of the 1990s. In BC, the Commission on Resources and Environment (BC-CORE, 1995) implemented several local/regional land-use planning exercises in the early 1990s. In Ontario, the "Lands for Life" exercise of generating regional ecological land-use plans (OMNR, 1997) is just getting underway. Both these exercises influence forest management significantly because so much of the land in question is forested.

2.3 Implications

The foregoing analysis, however incomplete it may be, indicates an extremely rich environment of forest-policy developments upon which a new national forest strategy can be based. Debates on the content of the new strategy need to be well informed of the current state of forest policy across the country and in the international realm.

Participants in discussions on Canada's next national forest strategy are strongly encouraged to take the time to increase their awareness by examining documents associated with the policy developments just reported, as well as others we doubtless have missed.

3. Forest Issues

We now turn our attention to issues that might be considered in the formation of a new national forest strategy for Canada. Some of these issues are the same ones highlighted by Godbout (1991) and addressed in the 1992 strategy (CCFM, 1992). Others have risen to prominence on the debate agenda as the decade of the 1990s has matured. In our review, those we have felt are most pressing have received greater attention, and others fetch just a mention. In the discussion below, we have clustered the issues in such as way as to start with those directly connected with woodlands, and moving from there through issues related to forest products to issues related to people and communities. Many issues are highly interrelated with other issues, and their placement in a cluster below may seem arbitrary. However, each key one needs to be discussed somewhere, and where we put it was merely a matter of our judgement.

3.1 Issues in Forest Management

3.1.1 Management Paradigms and Systems

The Canadian forest community, like those elsewhere, has engaged in a continuing dialogue about the best way to arrange forest management so that the needs of all users and interests are reasonably met.

The multiple-use paradigm of the 1970s was followed by support for the concept of integrated resource management in the 1980s. In the 1990s, the models most highly extolled are called **ecosystem management** or **sustainable forest management**. These are essentially different labels for the same paradigm which focuses on ecosystem sustainability, forest-use sustainability, and community sustainability. The paradigm epitomises the concept of sustainable development where economic, ecological and social systems are managed in harmony with each other.

Several other key concepts are constantly being raised in discussions about sustainable forest management (SFM). Adaptive management is seen as the most promising technical approach in SFM (e.g., Newfoundland Forest Service, 1995; CSA, 1996a; Weyerhaeuser Canada, 1997). Unfortunately, it is frequently confused with the management concept of continuous improvement. Contemporary forest management in Canada requires a stronger interpretation of adaptive management (e.g., Lee, 1993). Forest managers are faced with such profound uncertainties about how to manage large forest estates successfully through long periods of future time that management plans need to be treated as large experiments. Frequent course adjustments and weak prediction and monitoring schemes will inevitably invalidate these crucial experiments.

Also central to SFM for many people is the concept of **mimicking natural disturbance patterns** in management design and implementation. The concept is so young that principles have been formulated but experience is yet forthcoming.

Many issues need to be resolved (e.g., what patterns to emulate, how to emulate them, how to bear the costs of such emulation, how to factor uncertainties about future climate) before forest managers can implement this concept comprehensively.

Another issue is **forest zonation**. Can a wide range of diverse forest values be satisfied on each piece of land simultaneously, or is it better to divide the landscapes into dominant-use zones so that conflicting uses can be spatially separated from each other? Environmentalists and conservationists advocate creation of **protected areas** for wildlife and wilderness; some industrial foresters are calling for designation of areas for intensive timber production. Many people are now suggesting that such dominant use zones be interspersed with areas managed for multiple values.

New features are now being added to the standard forest planning process to further strengthen ecological and social considerations in forest decision-making. One that has existed for a few decades but has only recently begun to play a strong role in forest management is **environmental assessment**. Several provinces require formal application of an EA process in forest planning for public lands, and forest managers are just now getting used to the experience. Forest management **certification** is more recent than EA, having had little direct application although a great deal of debate and development of late.

Depending on how forest politics plays out over the next few years, it may well become the key mechanism for assuring the public and forest-products consumers that forests are being managed sustainably.

Whether in forest planning, environmental assessments or certification processes, the need to develop and apply incisive **criteria and indicators for sustainable forest management** is paramount. These have been developed for application at provincial and national levels by the CCFM (1995), but much work remains to be done to develop them for local application.

3.1.2 Forest Practices

Some of the greatest criticisms of mainstream forestry pertain to field practices. Silvicultural systems are hotly debated, especially those dependent on clearcutting as the most appropriate type of harvest treatment. The design and implementation of clearcutting has become highly sophisticated in sensitivity to non-timber values, and proportionally less of it occurs today than in previous decades. However, some interests feel it should be abandoned altogether, despite arguments that this approach to timber harvest may most closely mimic natural disturbance patterns in many forest types of Canada. A related issue is that of timber-harvest methods - concerns nowadays most often relate to whether slash is left stumpside, where the organic matter and nutrients from slash decay are most needed.

Regeneration methods and **pesticide use** also command attention in contemporary forestry debates.

While planting was seen during the 1970s and 1980s as the most promising regeneration method, the tide has turned back today toward planned natural regeneration, with both ecological and economic benefits, assisted as required by planting or seeding. Use of chemical pesticides - both herbicides and insecticides - is experiencing a decline, not because they are not needed but because the Canadian public deems them too dangerous to the environment and public health. Foresters are not happy with the loss of such powerful management tools, especially when their counterparts in agriculture, and indeed private citizens practicing lawn and garden care in urban ecosystems, use much more pesticide product per unit area per unit time, and receive much less public scrutiny. Even so, researchers and forest managers have developed several alternative pest management tools (such as the biological spruce budworm control agent *Bacillus thuringiensis*).

Roads are a continuing necessary nuisance in forest management. They must be built and maintained at great cost, which are increased by the necessity for precautions against site-specific environmental impacts. In addition, there is much consternation today about the broader-scale impacts of roads including forest fragmentation and provision of access to hunters and others. Special policies on road planning, use and decommissioning, as well as on roadless areas, seem warranted today.

3.1.3 Non-timber Values

Foresters have come a long way in the past few decades in expanding the array of non-timber forest values taken explicitly into account in forest management. Yet much remains to be done, and controversy and uncertainty accompanies consideration of several non-timber values. Perhaps at the top of the agenda today is biodiversity conservation. Biodiversity has come to represent just about all concerns for forest biota, at all levels of organisation from genes to landscapes. It definitely includes wildlife habitat, long a concern for foresters but now moreso because of new concerns for non-game and non-commercial species. It also includes endangered species, which many believe require stronger protection, as evidenced by recently proposed, albeit controversial federal legislation (bill C-65) for their conservation. Old-growth forests are also an element of biodiversity since they are a special temporal stage of the forest ecosystem, and are required habitat for some sensitive wildlife species. These and all other dimensions of biodiversity require continuing attention in Canadian forest management and policy, especially given Canada's commitment to the Convention on Biological Diversity. The challenges are formidable, because biodiversity is a tremendously complex subject. We have yet to learn how to measure it comprehensively, and thereafter how to design forest management to conserve all its facets.

More and more attention is also being focussed on the abiotic elements of forest ecosystems - soil, water, air - and how to ensure their good condition. While soil erosion during forest operations remains a concern, loss of soil nutrients has become an issue on sensitive sites or where timber is to be managed intensively.

Water-related issues are one thing to understand at the site level, but forest managers are now being called upon to understand the impacts of forest management on water quantity and quality in entire large watersheds.

Among issues related to forests and the atmosphere, that of greatest concern today is **carbon cycling**. This of course would not be an issue at all if the carbon content of the atmosphere were not rising steadily due to fossil-fuel burning, and if the spectre of undesirable global climatic change were not expected to result from a carbon-enriched atmosphere. The main question here (the potential effects of climate change on forests are discussed below) is the extent to which forests can be managed to take up more carbon from the air and thus slow the rate of net increase of atmospheric carbon. One problem is the uncertainty over how to manage forests so they function in this way, and another is the potential conflict between enhanced forest carbon sequestration and the concept of mimicking natural disturbance patterns (Duinker, 1996). Much work remains to be done to reduce these uncertainties so forest managers can be confidently advised on how to proceed.

3.1.4 Climate Change

We have already mentioned the potential role of forests and wood products in sequestering more atmospheric carbon. The other carbon-related issue is that, if increases in atmospheric carbon and other greenhouse gases cause large **changes in the global climate**, how might Canada's forests respond? That climate change is coming during the next century is gaining ground among climatologists (e.g., Houghton et al., 1996). Despite uncertainties in expected temperature and precipitation levels, especially at local and regional levels, some forest analysts warn that the effects on Canada's forests are much more likely to be, on balance, undesirable than desirable (e.g., Solomon et al., 1995). Given the long-term nature of forest-management actions (e.g., trees planted today will be expected to live through most of the 21st century; protected areas are expected to conserve biodiversity in perpetuity), to what degree are we taking the prospects of climate change into consideration? Should we not be taking risk-reducing actions today, especially low-cost ones associated with current forest-management practices? The time has come for the Canadian forest community to include the possibility of climate change into forest policy decisions.

3.1.5 Responsibilities and Rights

With an ever-widening array of forest values to account for, and concomitant changes in the way other interests are invited to participate in forest decision-making, the forest community faces crucial questions regarding **responsibilities and rights**. The large question is, can the current system of responsibilities and rights in Canadian forest management serve us well in the future given the changing expectations and context? There are many ancillary questions. To what degree can timber-tenure holders, with assigned rights for timber harvest and responsibility for related management activities, be expected to assume responsibilities for

non-timber values when regulation of such values are not legally in their jurisdiction (e.g., provincial government regulates hunting of game species)? The CSA SFM System Standard (CSA, 1996a) raises the issue of rights and responsibilities among partners in forest-management decision-making as a major concern.

Another issue is the **transfer of responsibilities** from governments to the private sector. Even though most forest land in Canada is publicly owned, governments are inclined today to pass more and more of the responsibilities for managing the public land where timber is harvested to the timber-rights holders. Does this represent an overdue shift from a situation where private good was obtained at public expense, to one where public good will be derived from private expense? Either way, an equitable sharing of costs and benefits of managing public forests must be arranged for all parties, particularly for the public which owns the land and for the private-sector commercial users.

Large questions still remain over the rights and responsibilities that might well be directed to both Aboriginal and non-Aboriginal **rural communities** in Canada. Local success stories notwithstanding, there seems to be rather slow progress overall in developing a favourable relationship between Canada's **First Nations** and the provincial/territorial and federal governments on the subject of land and natural resources. At a practical level, perhaps the concept of **community forests**, with a growing experience base across the country (Duinker et al., 1994), requires further elaboration and testing as a means for achieving sustainable forest management.

3.2 Issues Related to Wood Products

3.2.1 Processing and Manufacturing

A continuing concern for wood-products manufacturers is the adequacy of **fibre supply**. Of course, the supply is determined by the land available to grow and harvest timber, the inherent growth capacity of the land, and the level of management inputs. Canada's wood-products industry has long called for a stable determination of the timber-producing lands it can use. In the currently road-accessed portion of Canada's forests, any such determination in the near future is likely to decrease available timber-producing lands as Canada's network of protected areas becomes fully representative and complete. In the meantime, there are strong discussions about **accessing timber further north** than current allocations, from Labrador to the Yukon. While this has the possibility to relieve some fibre-supply shortages, it also raises serious questions about inherent timber growth rates, sensitive ecosystems, and new road access. Much discussed also, but ever so rarely implemented, is the choice to **increase management intensity** on good sites close to mills. The potential advantages of doing this, both economic and ecological (Binkley, 1997), are too strong for Canada's forest policy-makers to ignore any longer.

There are indeed other ways to increase fibre supply and to stretch further the economic value of existing supplies. **Fibre recycling** fetched strong attention in Canada through the 1990s, and still has potential to go much further in providing feedstock for manufacturing woodbased products. The concept of **adding more value** to products manufactured in and exported from Canada is also much discussed, but like intensive forest management, receives infrequent action. Increases in value added to wood-based products has ecological, economic and social benefits, the latter mainly through **job creation** which is a top policy issue in Canada today.

3.2.2 Wood-Product Markets and Trade

Canada's wood-products exports, largest in the world for pulp, newsprint and softwood lumber, contribute the lion's share to her positive balance of trade.

Loss of this trade would have drastic consequences for the Canadian economy. Thus, Canada needs to maintain a <u>positive image abroad</u> so that foreign consumers remain inclined to purchase Canadian products. Canada also needs to work hard to ensure **unrestricted global markets**. Finally, **competitiveness** needs to be assured through product quality and cost control.

3.3 Social Issues

3.3.1 Decision-making Processes

Great strides have been made by the Canadian forest community during the 1990s in garnering public participation in forest decision-making. Planning and policy-making processes, once the exclusive purview of industrial and government foresters, have become forums for lively and enlightened debate for all interested parties. The challenge in moving into the next century is to bring discipline, efficiency, and effectiveness to processes where the basic rights and means to participate are well established. Engaging all parties in the important dialogues is, however, no guarantee that they will somehow readily agree on appropriate directions and courses of action. At the level of policy-oriented principles (e.g., OFPP, 1993; Thompson and Webb, 1994), this is relatively easy; at the level of actual allocation of resources, rights and responsibilities (e.g., BC-CORE, 1993, 1995; Duinker and Hyer, 1997), consensus is elusive. This points to the need for continuing development of and experimentation with conflict-resolution processes (Johnson and Duinker, 1993).

3.3.2 Communications and Education

An ongoing concern for forest managers is how to raise **public awareness and understanding** of forest management to the level where the public can participate in forest decision-making in an enlightened way.

The forest community has been ineffective at communicating its messages to the public. The challenge is great since the forest community must create a public hunger for its stories, and an attitude of receptivity to multiple and even conflicting lines of evidence on forest issues. The public, in turn, may well feel disenchantment with the degree to which the forest community receives and understands its messages - forest community awareness of public sentiments also needs development. Communication about forest issues definitely needs to function in at least a two-way mode.

4. Conclusions

We observe that the Canadian forest community has made immense strides in improving forest management and policy during the 1980s and 1990s. However, alas, for every problem solved or resolved, another raises its head, and several others appear, seemingly out of nowhere. The 1987 National Forest Sector Strategy was a landmark statement of the feelings of the Canadian forest community about what were the policy needs of the day. The 1992 National Forest Strategy was of radically different form, emphasising different themes and taking a different tack than the standard recommendations format.

What can we say about the next strategy? Some issues from the 1992 strategy are clearly no longer at the top of the current agenda, some have remained at the top, and others have emerged as new issues for the forest community to address. In this paper, we have tried to tantalise the reader to investigate further the issues we think should be at or near the top of the agenda as the forest community searches for meaningful directions for Canada's forests at the beginning of the third millennium. If the paper serves to provoke debate as to whether these are indeed the issues to address, or whether they should be addressed as we might have indicated, we will have fulfilled our mission. One thing is sure - the next national forest strategy had better address all the issues critical to sustainable development of Canada's forests and society's dependence on them. Sustainability of ecosystems, economies, and social communities is paramount as we chart the course for Canada's forests.

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