NATIONAL ROUND TABLE

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REVIEW

Jobs and the Environment: Sustaining Canada's Future

INSIDE

CANADA'S NATIONAL NEWSLETTER ON SUSTAINABLE DEVELOPMENT

SPECIAL

FEATURES

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NRT REVIEW

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Jobs, Prosperity and a Sustainable Economy: It's All Common Sense

In the 1988 election campaign the environment ranked second only to the issue of free trade. But in the lead up to the 1993 federal election, the media and polls have told us that the environment is way down the list of priorities. Canadians are concerned about jobs and the economy. We can't afford to worry about the environment in this time of weak economic growth; it's a luxury we can only afford when times are good. Right?

Wrong. This kind of attitude reflects the mistaken belief that environmental protection must necessarily come at the expense of jobs and economic growth. In reality the economy and the environment cannot be separated. Just as we cannot expect long-term economic growth if we continue to spend more than we create in wealth, we cannot expect a strong economy if we deplete and pollute our source of natural capital.

That's just common sense.

One in three working Canadians derives his or her income directly from resource-based industries. Yet at the same time, our economic activity and industrial processes are depleting, degrading and polluting those natural resources on which they depend. Even a country as rich in resources as Canada cannot build long-term productivity and wealth without using its resources efficiently and sustainably. The east coast fisheries is an obvious testimony to that argument.

Only through a strategy of environmentally sustainable economic development can Canada expect to prosper in the long-run.

What's more, the process of moving toward sustainable development has great potential to create jobs. As **Gary Gallon** points out, the environmental industry reaps an estimated $10 billion each year, employs over 80,000 people and is expanding rapidly. **Kirk Falconer** argues that spending on environmental innovation and technology can create jobs through productivity and profitability improvements.

The theme of sustainability and prosperity is not new to the National Round Table. These arguments reflect the NRTEE's own initiatives which include 14 recommendations to the Prime Minister on specific steps the government could take to improve Canada's prosperity.

Although we are making some progress, the systems, regulations and institutions needed to make the transition to sustainable development are not yet in place. As both **John Dillon** and **Jean-Denis Barry** argue, from the point of view of big and small business respectively, government policy has a role in challenging firms to respond to competitiveness, through a mixture of appropriate environmental regulations and market incentives. **Ahmad Husseini** discusses the potential of environmental standards, while **Mike Kelly** and **Tony Cassils** suggest that traditional "command and control" approaches need to be combined with incentives and disincentives such as market instruments, green taxes and subsidies.

Essentially, we need to get the prices right. **Dan Rubenstein** explains how at present, our accounting systems fail to adequately value our natural resources; they also fail to internalize environmental costs to business.

Many successful Canadian businesses realize that protecting and enhancing the environment is not just a cost of doing business, but a potential source of competitive advantage. The articles on the pages that follow contain many promising success stories. **Jack MacLeod** describes Shell Canada's evolution from environmental management to sustainable development. **David Runnalls** and **Jim MacNeill** provide an inside view on Ontario Hydro's major plans for a sustainable energy strategy.

Helen Sinclair and **Angus Ross** explain, from a financial services perspective, why environmental risk must be a part of doing business. And **Pierre Marc Johnson** and **André Beaulieu** explain why trade liberalization promotes better environmental management.

The transition to sustainable development requires appropriate systems of information and reporting. **Stephan Barg** explains what corporate reporting for sustainable development is all about. Sustainable development also requires new ways of communicating and making decisions. **John Houghton** describes his experience in a multi-stakeholder dialogue on Canada's forest sector, and the positive results achieved.

Barry Sadler argues that rather than being seen as a luxury of affluence, sustainable development should be seen as a key to prosperity and competitiveness. **Doug Miller** calls this "new economics."

The collection of articles in this edition of the NRT Review, representing the opinions of a variety of leading experts, provides convincing and concrete examples of sustainable development in action. Taken together, they reinforce the argument that a commitment to sustainable development could be a real source of job creation, economic growth and long-term prosperity for Canada.

As Pierre Marc Johnson has said: "The first nations to adapt to the new environmental realities of the 1990s will be the winners of the next century."

It is time to embrace the concept of sustainable development as the only pathway to a stronger economy and more and better jobs for Canadians.

Kelly Hawke Baxter

Corporate Sustainable Development Management

Jack M. MacLeod

Under the leadership of Jack MacLeod, Shell Canada Ltd. was one of the first companies to publish a sustainable development report. Shell's report is part of a comprehensive sustainable development plan which covers all aspects and operations of the company. Mr. MacLeod explains Shell's evolution from environmental management to sustainable development.

The Conference Board of Canada has identified three stages in the evolution of corporate environmental management: "Ad Hoc Management", "Managing for Compliance" and "Managing for Sustainable Development". I experienced that evolution quite personally during the 38 years I worked in the petroleum industry with Shell Canada Limited.

SHELL CANADA'S POLICY

Shell Canada is committed to the integration of economic and environmental decision-making to promote sustainable development.

We will:

- *apply sustainable development principles to all Shell activities;*
- *implement sustainable development self-monitoring mechanisms;*
- *evaluate public oinion on sustainable development; and*
- *participate in consultative processes on sustainable development.*

Up to about the end of the 1960s, the petroleum industry practised "Ad Hoc Management".

The "Managing for Compliance" practices that our industry applied throughout the 1970s became progressively more elaborate as the interaction between our operations and the surrounding environment became more complex and as environmental regulation became more intensive.

By the mid 1980s Shell Canada implemented an explicit Health, Safety and Environment Policy to guide environmental management practice.

Throughout the three decades of these first two stages of the evolution, industrial corporations as a whole had a mixed record in environmental performance. This, together with periodic major environmental accidents, fuelled a public perception of environmental insensitivity and irresponsibility on the part of industrial corporate management.

In 1990 Shell Canada began the third stage of the evolution moving from "Managing For Compliance" to "Managing for Sustainable Development".

First, we created an explicit Sustainable Development Policy. The second step was a commitment to prepare a Sustainable Development Plan for the company, which would include all field, plant and office activities. A third important step was the publication in 1992 of a report entitled *Progress Toward Sustainable Development.* This was the first such report for Shell Canada and one of only about 20 reports of its kind world-wide, in which corporations make a comprehensive disclosure of their environmental/sustainable development stewardship. Shell Canada was the only one of the few reporting corporations to relate the content of its report directly to sustainable development.

As Chief Executive Officer, I led Shell Canada people through that third stage of the evolution to "Managing for Sustainable Development".

It had become clear by the late 1980s that the public, individually and collectively, had become intensely concerned about continuing degradation of the global environment. This intense concern was carried over from the personal lives of individuals to their roles as stakeholders in industrial corporations: as employees, customers, suppliers and indeed, as shareholders. Consequently, it seemed clear that the industrial corporation had no choice but to ensure that all of its operations met the test of environmental sustainability. Concern for loss of legitimacy — in effect loss of mandate from corporate stakeholders in the

event of environmentally unsustainable operations — had become a driving force for corporate stewardship that transcended regulatory compliance.

Looking back, one cannot say that on one specific day at Shell Canada we set out to build a corporate sustainable development plan. One *can* say that some 30 of us who were the most senior managers, engaged ourselves in what proved to be a workshop process to consider what the term "sustainable development" meant, and what concepts implicit in the term might apply to planning and conducting the corporation's operations. The notion of beginning a disciplined transition from environmental management practices to sustainable development practices emerged early in the process but it was not on the table at the outset.

The personal experience of the participants was the principle resource available to the workshop process, supplemented by background material prepared by staff economists and environmental specialists, and a draft statement of sustainable development principles that was then under consideration, and later finalized by the National Round Table.

Being characteristically impatient for results, the workshop participants moved quickly from the theoretical to the practical — from a struggle with the abstract to the hands-on task of creating a corporate sustainable development planning tool-box.

At the conclusion of this workshop process, the participants felt they shared an awareness of the fundamental distinctions between Managing for Compliance and Managing for Sustainable Development (see box below) and they shared a commitment to implement Sustainable Development planning using the tool-box they had created together. The tool-box contained separate statements of Sustainable Development Policy, Principles and Guidelines, and a preliminary listing of related operational targets.

Shell Canada's first comprehensive Sustainable Development Plan is now being completed. The planning tool-box that was developed through senior management consensus is being applied in some way by virtually all Shell people, to produce a plan for each operation and function of the corporation. The Corporate Sustainable Development Plan will be the sum of the plans developed for each field, plant and office location.

In my personal observation, Shell people took up the sustainable development planning tools with an unprecedented enthusiasm that I believe was driven by four simple but powerful forces:

- personal concern about environmental degradation;
- that there is some role for every Shell person to play in building and executing the corporate plan;
- that workplace activity related to sustainable development is virtually automatically transferable into personal life (e.g. waste management/and energy conservation); and
- the sincerity of management commitment.

Despite the fact that it will be comprehensive, we all recognized that Shell's first Sustainable Development Plan will be preliminary in some aspects of substance. When viewed in retrospect from 10 years hence, it may appear almost primitive as measured by the standards that industry and stakeholder consultative processes will have reached by that time.

All that takes nothing away from the value of the first effort. The first plan served as the essential baseline against which the corporation can plan, execute, measure and report its progress in contributing over the years to a more sustainable global future.

Finally — an important footnote to corporate leaders who value employee motivation. My experience in leading this effort has persuaded me that the Sustainable Development Plan of a corporation can become a rallying force for the people of the corporation.

A CHANGE IN APPROACH

ENVIRONMENTAL MANAGEMENT FOR COMPLIANCE	MANAGEMENT FOR SUSTAINABLE DEVELOPMENT
Environmental Impact Assessments	Integrate environmental and economic decision-making
Meet regulatory requirements for air, water and waste systems	Make detailed inventories for waste air and water system emissions Design and operate to minimize reclamation Monitor and audit with follow-up
Defer site reclamation plans to future	Design and operate to minimize reclamation PLUS: Practices based on principles Project life cycle management Project life cycle assessment Energy conservation and efficiency improvement Emphasis on anticipation and prevention Proactive consultation with stakeholders

Jack MacLeod, former CEO of Shell Canada Ltd., has been a member of the National Round Table on the Environment and the Economy since its inception in 1989.

Greening the Giant: A Sustainable Energy Strategy for Ontario Hydro

David Runnalls and Jim MacNeill

When Maurice Strong took over the helm of Ontario Hydro in December, 1992, he said he would implement a sustainable development plan for the troubled utility. Eleven months later, a strategy has been presented to Hydro's Board. David Runnalls and Jim MacNeill, architects of the plan, give the inside story.

Ontario Hydro is arguably the largest single influence on the Ontario environment. Its 28,000 employees operate generating stations which can produce over 30,000 MW of electricity. Its Nuclear Business manages five generating stations, a heavy water plant, steam plant, radioactive waste operations facility, tritium removal facility, central maintenance facility and spent solvent treatment facility, as well as two fire fighting training facilities, sewage processing plants, administration facilities, and training centres. The Fossil Business runs eight generating stations. The Hydroelectric Business has a total of 69 generating stations with 262 associated dams and structures.

To operate the system in 1992, Hydro burned 8.2 million tonnes of coal and 1,140 tonnes of uranium fuel. It emitted 210,000 tonnes of acid gases, 12% of Ontario's total emissions of SO_2 and 10% of NO_x. It produced 26 million tonnes of carbon-dioxide, 14% of Ontario's total. It produced 900,000 tonnes of ash. By the end of 1992, the nuclear stations had produced a total of 17,000 tonnes of used radioactive fuel, all stored on site, and 34,000 cubic metres of radioactive waste.

It is also one of the dozen largest corporations in Canada with an annual turnover of more than $ 9 billion. Recently, it has been in trouble. With a debt in excess of $30 billion, 30% more generating capacity than it needs and an Ontario public sick of paying annual increases in electricity prices, Bob Rae appointed Maurice Strong to "save Ontario Hydro" (as the Toronto Star put it). Strong moved quickly to restructure the corporation, announcing over 5,000 layoffs, cutting the capital budget by more than half and promising a freeze on electricity prices for at least 1994. He also set in motion plans to reorganize its unwieldy bureaucracy into separate business units, each with its own balance sheet and with a fair degree of operating independence.

At this point he asked the two of us to co-chair an internal task force to recommend a corporate strategy which would make Hydro ..."the world leader in pursuit of more sustainable forms of energy production, development and use..." and would help the Ontario economy become more energy efficient and competitive.

Inevitably the question arose " Why now?" Surely it would have been easier to let the staff and budget cuts and the reorganization take hold and then deal with environmental questions later? But as a member of the Brundtland Commission and Secretary-General of the Rio Conference, Strong understood that economics and the environment are now so closely linked that policies in one area which ignore the other are bound to fail.

The economic restructuring of Hydro had to be accompanied by measures to integrate the environment into all of its economic decisions. Sustainable development requires it. Competitiveness demands it.

Our Task Force did what most task forces do. We conducted studies. We amassed huge quantities of information. We consulted the gurus. And we concluded that Hydro could become a world leader in sustainable energy use and that Ontario could become both more competitive and more energy efficient. Indeed, one follows the other. But this leadership would require enormous changes in the institutional culture and systemic changes in the way the organization makes its decisions.

Like most Canadian companies, Hydro's senior executives are only beginning to come to grips with sustainable development. And its work force, battered by the cuts, views environment and sustainable development as potential job killers. Turning this culture around will require ambitious plans for training, reskilling and a new relationship between management and labour. We recommended such programs

and suggested that the two unions within Hydro should be represented on both the Board and Management Committee. We recommended a "green fund" to provide incentives to employee "intrapreneurship". We also recommended that the new performance contracts being negotiated with senior management have quantifiable sustainable development criteria written into them and that part of their pay should depend upon their performance in this area.

The economic restructuring of Hydro had to be accompanied by measures to integrate the environment into all of its economic decisions. Sustainable development requires it. Competitiveness demands it.

The integration of environment into economic decision-making must start at the top. And Hydro is fortunate in having a CEO who is perfectly suited to the job of Chief Sustainable Development Officer. We recommended that sustainable energy development become the focal point of strategic planning within the organization. We recommended that the Hydro Board should insist that all documents submitted to it be analyzed for their sustainability impacts prior to presentation. We also felt that decision-making at Hydro needed to become more transparent. We proposed earlier involvement of stakeholders in the process, with funding provided for those who need it. The Task Force also proposed that the CEO set up his own Round Table on Sustainable Energy Development to bring in outside expertise from the highest levels in industry, the NGO community and government.

As long as industry does not pay the full costs of its operations, those resources which are the property of us all will suffer through acid rain, water pollution and the spread of toxic wastes. The Task Force recommended that Hydro move immediately to a system of full cost accounting for all of its new investment decisions. And steps are already being taken to carry out this recommendation.

As Maurice Strong has pointed out, Hydro is its own best customer (because it is the largest electricity user in Ontario) and its own worst customer (because it has not internalized the price for electricity). We recommended internal efficiency programs which could save more electricity than all of the previous demand management programs had saved throughout the entire province. The Task Force also felt that Hydro, despite its surplus capacity, should significantly strengthen its programs to encourage customers to use electricity more efficiently.

Like most Canadian companies, Hydro has developed environmental policies largely designed only to comply with existing regulations. But if it is to be a world leader it will have to go beyond compliance and set its own goals. The Task Force recommended specific targets for CO_2 emissions (no new net emissions from new facilities, at least stabilization from existing facilities), CFCs (no emissions after 1996), PCBs (Hydro to take the lead in developing destruction technology), biodiversity and contaminated lands.

These recommendations, and many more in the areas of procurement, technology development and Hydro's international operations, are now before the Board and management for approval and implementation. If the bulk of them come into force, we are convinced that Ontario Hydro can indeed become the world leader in sustainable energy development.

Jim MacNeill and David Runnalls, Senior Fellows at the Institute for Research on Public Policy, are the architects of Ontario Hydro's sustainable energy strategy.

SUCCESS STORY: Boosting the Bottom Line

Imagine saving tens of thousands of dollars simply by changing the light bulbs in your place of business. Sound too good to be true? Well, that's exactly what the Royal West Edmonton Inn did. The 193-room hotel cut their lighting costs by installing motion detectors that turn the lights on only when someone is in the room. Hotel General Manger Lou Roelofsen was worried at first about the guests' reaction. "I thought they would think we were cheap if there were no lights on but instead they congratulated us for helping the environment. Now we are giving tours to other business people who want to cut costs and help save energy."

In these recessionary times, companies are always looking for ways to improve efficiency and cut costs. Executives need look no further than energy audits. Energy audits determine the cost of where and how energy is being used and make recommendations for savings. Initial investments result in large savings in the cost of doing business over the year. For example, Crestbrook Forest Industries conducted an energy audit in 1991 as part of a project to upgrade three of its sawmills in British Columbia. Crestbrook estimates that annual savings of $133,000 will cover the initial installation cost in under six years.

The United Grain Growers Terminal A in Thunder Bay experienced similar savings as the result of an energy audit. United Grain Growers reduced their annual energy expenditure of more than half a million dollars by $46,000 without any capital cost. Further study revealed that for an investment of $118,000 an additional $67,000 could be saved in lighting costs. The capital investment will be paid for in savings in less that two years. Energy audits prove that business does not have to sacrifice the environment for the bottom line.

Carla Doucet

Competitiveness and Sustainable Development: Getting the Framework Right

John Dillon

Governments have an important role to play in establishing the right climate for a sustainable economy to prosper. That includes implementing a new regulatory approach and developing more market-based incentives.

Recent attention to the issue of competitiveness has sparked a lively debate in Canada, but it has also served to underline the role of governments in creating a more competitive economy. And while governments have an important role to play, they alone cannot ensure that Canada is competitive. Nowhere in the realm of public policy will the debate be more important than in defining the appropriate role for government in achieving a competitive and sustainable economy.

Many in the private sector have recognized the connection between environmental sensitivity and long-term business success. That awareness and enthusiasm will continue to spread. Whether governments in Canada support or hinder that progress depends upon putting in place a framework that recognizes and supports the crucial connection between competitive enterprises and environmental sustainability.

More regulation or better regulation?

Traditionally, governments have responded to environmental problems through more, and increasingly stringent, regulation of products and production processes. However, the nature of regulation in the 1990s is changing. With unprecedented levels of public debt and consequent constraints on resources, governments will have to rethink their approach. Also, there is growing recognition that not all environmental improvements come about as a result of government mandate. Ensuring that regulation supports competitiveness is not the same as saying *no* regulation, or even less regulation. However, the question which policy makers should be asking themselves is not "What kind of regulation is needed?", but rather, "Is regulation the best way to deal with this particular issue?"

An appropriate balance of regulations, market instruments and voluntary programs is essential. Examples in the United States have shown that a judicious use of market incentives can improve efficiency in achieving agreed environmental objectives. Voluntary pollution prevention programs also have considerable potential. Recent evidence suggests that when industry is committed to change — for example by including specified reductions in emissions as part of corporate objectives — targets are often reached more quickly than if mandated by government. Peer pressure and demonstrated leadership are also tremendously influential in the private sector. For example, the chemical industry in Canada developed "Responsible Care", a comprehensive and voluntary environmental management initiative that has since been adopted in many other countries. Northern Telecom phased out the use of CFCs ahead of the sched-

"Government plays an important part in shaping the pressures, incentives and capabilities of a nation's firms. Government's role is inherently partial, and succeeds only when working in tandem with favourable underlying conditions...[within the economy]. Government policies that succeed are those that create an environment in which companies can gain competitive advantage rather than those that involve government directly in the process. Its appropriate role is an indirect, rather than direct, one. Government's proper role is as a catalyst and challenger. It is to encourage, or even push, companies to raise their aspirations and move to higher levels of competitive performance, even though this process may be unpleasant and difficult."

Michael Porter, *Canada at the Crossroads*, BCNI and the Government of Canada, October, (1991).

ule set by international protocol, and at the same time developed technology that can be exported abroad.

Reinventing Porter

In assessing the appropriate role of regulation, the private sector is often confronted with the suggestion that regulation is good for competitiveness. As articulated by Harvard competitiveness guru Michael Porter[1], stringent standards *can* force companies to innovate ahead of their rivals, thus bringing about competitive advantage. However, a more careful reading of Porter will reveal that he does not suggest that *all* regulation is good for competitiveness. Indeed, he sets out several necessary conditions:

- *Standards are beneficial to competitiveness where they anticipate trends internationally, thus giving domestic firms a lead in developing products and services that will be valued in other markets.* However, that requires particularly insightful regulators. Moreover, it is open to question whether buyers in a foreign market will actually value products produced in a way that is more beneficial to *another* country's environment — witness the reluctance in some markets to pay a premium for chlorine-free paper.

- *Standards should be performance-based, prescribing outcomes rather than methods.* Too often in Canada standards have been based on the latest end-of-pipe control technologies. Far from improving competitiveness, they can actually stifle innovation, and provide little incentive to re-design process technologies in a way that would lower costs, reduce energy consumption, or improve quality.

- *Porter advocates the use of market-based instruments, as an alternative to command and control regulations, to achieve environmental targets.* Yet Canada has been slow to adopt such instruments, and where it has, they have been adopted more for purposes of raising government revenues than for improving the efficiency of the regulatory system.

- *If stricter regulations are to spur innovation and upgrading, then inherent in Porter's thesis is some assurance that firms will face a predictable regulatory regime.* Investments in new technology are unlikely to be competitiveness-enhancing if regulatory requirements change in an ad hoc manner, or where companies are subject to differing requirements in different jurisdictions, as has too often been the case in Canada.

In addition to the above, it is questionable whether a small export-oriented economy like Canada, without the size of domestic market or the number of leading-edge technological firms enjoyed by the United States, Japan and Germany, can afford to be a world leader in setting stringent standards in too many areas. All of this suggests that governments in Canada would have to substantially change their regulatory approach in order for them to make a significant contribution to the competitiveness of Canadian industry. However, achieving an appropriate regulatory framework will not be enough unless the other fundamentals for long-term sustainability are also in place.

The rest of the agenda

First and foremost is the need to ensure that the federal/provincial division of responsibilities for the environment works in favour of competitiveness and sustainability rather than against it. Few would suggest that laws and standards must be identical since no two jurisdictions face exactly the same problems, nor the same resources to address them. Nonetheless, we have too often let jurisdictional rivalries hinder efficacy in dealing with environmental issues.

One of the biggest impediments is the uncertainty surrounding the approval process where federal and provincial governments are involved, or where there are competing mandates *within* one level of government. The result can be decisional paralysis and a failure to take decisions and investments that would improve both the environment and the economy. Above all, industry requires timely decisions and predictability in the rules that will apply over the investment planning horizon.

Some of the other fundamentals are:

- Agreement on tackling environmental priorities so as to make wise choices about the use of limited resources.

- A system of environmental indicators that tracks environmental progress and problems, and measures the efficacy of our response.

- A greatly improved scientific base that ensures environmental measures are supported by rigorous analysis and sound science.

- Educational tools and programs that ensure individual Canadians understand the challenge of sustainability and what their role is in achieving it.

- A workforce that is adept in the skills that will be needed in a more competitive, knowledge-intensive and sustainable economy.

- Dynamic and innovative Canadian companies that recognize the opportunities arising from the "green" revolution and devote resources to developing Canadian competitive advantage in new environmentally sound products, technologies and services.

Obviously, this is a tall order for any government or set of governments to consider. Yet all of these elements are necessary if we are to build an agenda that reconciles long-term economic progress and environmental sustainability.

[1] *Michael E. Porter, "America's Green Strategy", Scientific American (April 1991), p. 168.*

John Dillon is Senior Associate, Business Council on National Issues.

International Standards

Ahmad Husseini

Canada is taking a lead role in developing international standards and guidelines that will help companies reduce their impact on the environment. Facilitated by the Canadian Standards Association (CSA), Canada has been chosen to host the secretariat for a new Environmental Management Committee of the International Organization for Standardization (ISO).

For the past few years, the CSA has been working to develop voluntary standards and guidelines to help companies incorporate environmental considerations into their decision-making.

International standards for environmental management can help promote the world-wide application of the key elements embodied in the concept of sustainable industrial development. Standards in quality management had earlier paved the road to better application of quality concepts in business and industry. Environmental management systems further improve that quality.

International trade has been known to suffer from protective environmental legislation. Voluntary global standardization of environmental systems and procedures would help create a level playing field.

That is exactly what the ISO has done. The new ISO committee has a challenging task ahead: how to combine environmental considerations into the way we carry out our daily business through international standards. Environmental standards could lead to prosperity for those who realize that the time has come to save our planet through sustainable management.

Ahmad Husseini, P.Eng. is a Project Manager, Canadian Standards Association.

"Stringent standards for product performance, product safety, and environmental impact contribute to creating and upgrading competitive advantage. They pressure firms to improve quality, upgrade technology, and provide features in areas of important customer (and social) concern."

Michael Porter, *The Competitive Advantage of Nations* (1990).

SUCCESS STORY: Creative Carpets

When it comes to being environmentally responsible, some companies are looking no further than the carpet under their feet. Whether it be a large corporation like Du Pont Canada Inc. or family-owned and operated H & I Carpet Corp., carpet companies are looking for ways to lessen their impact on the environment. Traditionally the carpet industry is one that contributes a substantial amount of waste to landfills. In North America used carpets from commercial buildings and homes account for three and a half billion pounds of waste in landfills.

Du Pont, through its recently announced Partnership for Carpet Reclamation (PCR), is working toward the reduction of waste in partnership with Browning-Ferris Industries (BFI). PCR will accept all types of carpets and all types of fibres regardless of origin. New technology is being explored that would see the diverted carpet recycled for use in plastics, asphalt, and cushioning. Despite being only three months old, PCR has already diverted three million pounds of carpet from landfill sites.

"Anybody who follows the news knows that carpet reclamation is hardly a new concept. What makes PCR different is that it's the first comprehensive reclamation system, with a complete working infrastructure. And that's a breakthrough," says William Ruckelshaus, Chair and CEO, BFI.

H & I Carpet is a family-run Toronto business with 20 employees. A request of company Executive Vice-President Brian Greenberg to write a paper on waste reduction for the Association of Registered Interior Designers of Ontario led to a full-scale look at how the flooring industry was operating. This led H & I to develop several innovative products that have a minimal impact on the environment. At the 1992 International Interior Design Exposition H & I won three of the four carpet awards given out.

Disturbed by the fact that carpet sample folders often end up in the garbage, thus contributing to 100 million pounds of design waste from the carpeting industry, H & I designed a display folder made from recycled cardboard with samples attached in a way that allows them to be removed or replaced easily. The folders are also equipped with removable product identification cards that clip onto the folder's spine. If a product line is discontinued the samples and identification card can be replaced. The folders can now be used indefinitely. This is just one of many environmental initiatives undertaken by H & I. Greenberg says: "We are trying to adopt a grassroots approach to effect real change in the industry. We want to make environmentally safe alternatives available to the consumer."

C.D.

Environmental Industries: Part of the New Canadian Economy

Gary Gallon

With revenues of $10 billion a year, Canada's environmental industry sector is one of the fastest growing in Canada and has the potential to become a major employer in Canada and exporter of goods and services.

Environmental industries are emerging as a powerful new economic sector in Canada. During the past decade they have been growing at a rate of 8% per year. They have been growing while other industry sectors have been downsizing and readjusting to changing economic conditions. Environmental industries along with a few other economic sectors such as high-tech computer software and hardware, communications, and transportation, will provide the foundation of economic recovery for Canada entering the year 2000.

Canadian environmental industries generate $10 billion of revenue a year, employing over 80,000 people in this country. They are now among the top five employers in Canada, and continue to hire people while growing at four times the current 2% national economic growth rate. In a study conducted by Ernst and Young for the Ontario Ministry of the Environment, environmental industries were found, in 1990, to be the third largest employer in that province (see table page 10).

In the three years since 1990, many of the large industry sectors have been downsizing while the environmental industry sector continues to grow. Recognizing the significance of this trend environmental companies have created a new organization to coordinate and focus their growth and to provide support for government programs. The Canadian Environment Industry Association (CEIA) was born at the Globe '90 Environmental Conference and Trade Show in Vancouver. It now has associations in seven provinces (British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, and Newfoundland). It will be opening a permanent national office in Ottawa, November, 1993. CEIA represents the interests of more than 3,000 environmental companies across Canada.

To help train professionals for the new jobs being created in the environmental sector, Employment and Immigration Canada has funded the establishment of the Canadian Council for Human Resources in the Environment Industry. It is taking professionals (that have been let go) from the utilities, auto companies, and other downsizing sectors and preparing them for a career in the new fields created by the environmental companies.

Worldwide national economies are experiencing a "Green Industrial Revolution". The revolution involves an economic restructuring that results in new green accounting methods and a green industry sector that will maintain and enhance our standard of living — a standard of living that is being eroded by the current economic activity. Industries within Canada are in the forefront of this green revolution.

The Government of Ontario, for example, has recognized the economic shift, stating in its 1992 Throne Speech:

"Taking care of the environment is an essential part of true progress, and making our economy more conserving will ultimately be a source of strength and competitiveness. Our investment strategy includes a Green Industry Strategy to support our environmental goals and make

MORE JOBS FOR CANADIANS

The environmental technologies and services industry has tremendous potential to contribute to Canada's economic strength and long-term competitiveness, as well as providing jobs for Canadians. The international market for environmental technologies, products and services, at an estimated $280 billion, is expected to double by the end of the decade. The National Round Table on the Environment and the Economy has recommended to the Prime Minister that the federal government actively support and promote Canada's environmental industries as a key component of its economic strategy.

Industry and Science Canada has established green industries support within its department. It should actively collaborate with green industries to promote export development and help gain access to international markets.

The government must also provide support to the industry through human resource development, research and development, and environmental regulations.

Ontario a leading producer and exporter of environmental goods and services."

"In the 1990s and into the next century, the interests of the environment and the economy are converging as consumers, businesses and governments respond to new realities. Green restructuring is happening all around us as domestic and international standards change, consumers demand green products, and technology advances."

Ontario established a Green Industries Strategy Group in the Premier's Office to facilitate the growth of the environmental economic sector.

The federal government has identified the environment as a key economic growth sector and has dedicated substantial resources under the Green Plan and within Industry and Science Canada to further the sector. A 24-agency task force within the federal government, co-chaired by Environment Canada and Industry and Science Canada was established to coordinate the development of an environmental industry and export strategy.

What are green industries?

Green industries provide technologies, goods and services that help an economy substantially reduce its negative impact on the physical and social environment.

Green industries function on the basis of the economics of efficiency. Efficient use of resources to manufacture goods results in better net incomes, less waste, less pollution, and a better environment. Sloppy and inefficient production methods usually result in poor company performance and poor environmental quality. Poorly trained staff, badly maintained equipment, and lax attitudes can result in the loss of valuable product and raw materials which become pollutants, as they are dumped or spilled into the environment.

Looked at another way, a contaminant discharged into the environment is a misplaced raw material that could have made money for the company, rather than become a polluting liability. Pollution is just a product in the wrong place.

Export market development

Canadian environment companies have a strong knowledge-base and an inventory of high-tech products that are ripe for export opportunities. Environmental exports are surging and are becoming a major source of foreign exchange earnings for Canada. Here is a look at the potential export markets: In the United States the 10 largest market economies spent more than $170 billion on pollution control. In Asia, pollution control expenditures are expected to reach $30 billion annually by the year 2000. In Western Europe, the pollution control market has been estimated at anywhere from $50 billion to $100 billion per year, and is projected to go as high as $150 billion annually by 2000, according to a report by the WorldWatch Institute.

Environmental industries are a new economic force that will help drive the economic change needed to achieve sustainable development. They will be driven by new pollution prevention initiatives, the work of round tables, and fundamental economic changes brought about by international demands for improving the human environment and economy.

Gary Gallon is President of the Canadian Environment Industry Association (CEIA), Ontario.

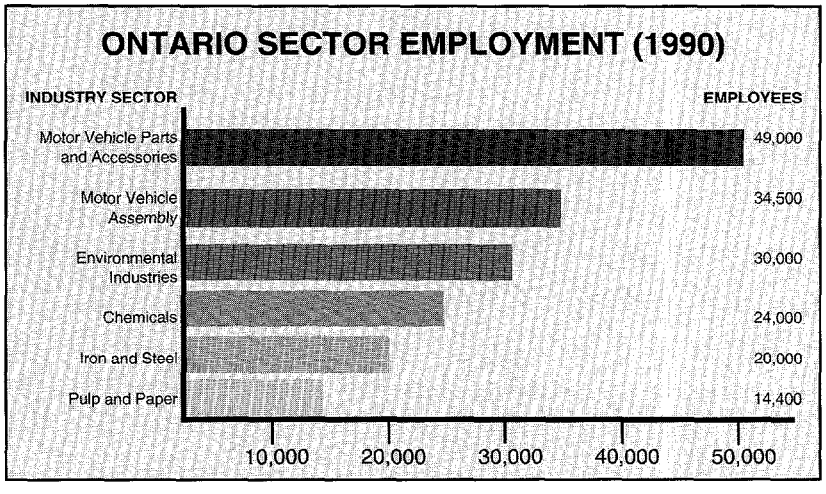
SUCCESS STORY: Composting

Canada Composting Inc., of Newmarket, Ontario, uses innovative technology for large scale centralized composting of solid waste. The technology, called the BTA Process, utilizes anaerobic digestion that overcomes past problems associated with traditional aerobic methods of composting that require oxygen. The land requirement for a BTA plant is a fraction of that required for a similar capacity aerobic facility.

The BTA plant is self-sustaining, using biogas produced in the process to run the system. This technology provides a solution for a substantial amount of municipal solid waste that is currently landfilled.

Kevin Matthews, company president, says that "this technology is not new; what is new is its waste reduction capabilities." The resulting compost from the BTA process can be applied to agricultural or horticultural areas. Testing has shown the compost to be a high-quality soil enhancer that is well within Canadian compost guidelines. Canada Composting plans to develop plants throughout North America and believes that the future of anaerobic composting looks good.

C.D.



Cashing in on CFCs

Ask Canadians what is the most pressing environmental problem facing us and chances are they will answer ozone depletion. Canadians have become familiar with words like chlorofluorocarbons (CFCs), stratosphere, ultraviolet index, and polystyrene. We know that the ozone layer protects us from damaging solar rays and that substances we release into the air are causing it to diminish. Daily radio reports in the summer remind us to put on sun protection before we leave the house. We know that our refrigerators, car air conditioners, cleaning solvents, business systems, and fast food packaging all contribute to ozone depletion, but we are unsure of what we can do about it. When it comes to other environmental issues like pollution or waste we know we can alter our behaviour to help the environment.

Through the creation of "green" technologies, there is hope for the ozone layer. Halozone Technologies Inc., of Mississauga, Ontario, has developed an award-winning method for the recapture of CFCs and other halogenated hydrocarbons. Halozone uses Blue Bottle™ cylinders which can be attached to refrigeration units to trap the CFCs which are then taken to the Halozone recycling plant. At the plant the CFCs are recovered from the bottles and purified. The recovered CFCs are then ready for reuse.

The development of this technology is timely because of Montreal Protocol commitments to reduce CFC emission and production. Signed by almost 70 nations, the Protocol calls for the reduction of CFC emissions to zero by 1995, the complete phase out CFC production by 1997 and the elimination of CFC use by the year 2000. Halozone's technology will be useful for the thousands of appliances that now use CFCs and will continue to be operational after the ban on CFCs takes effect. The added benefit of this technology is that it prevents appliances now using CFCs from becoming obsolete and ending up in landfills. The market for Halozone has global potential. As the signatories of the Montreal Protocol move toward non-CFC refrigerants, modifications will need to be made on existing equipment around the world.

The Halozone technology was developed by Dusanka Filipovic, President and CEO of the company. Filipovic has just been awarded the Ernest Manning Award for Canadian innovation. For her efforts she also received the Association of Professional Engineers of Ontario's Engineering Medal. Halozone is beginning commercial demonstrations of its Blue Bottle™ technology in cooperation with the Canadian Electronic Appliance Service Association, Sears Canada Ltd., and the Trane Service Agency of Toronto, through D'Arcy Sweeney Ltd.

Halozone has entered into a letter of agreement with another company, Thermco International, which will expand the business opportunities for both. Thermco International of Mississauga, Ontario, has developed a new technology which increases operating efficiency in air conditioning and refrigeration equipment while at the same time reducing the amount of refrigerant required. Thermco's Terminator Technology reduces refrigerant required by 30-40%, decreases energy use by 20-30%, while extending the life of the equipment. As a result, Thermco can remove its clients' excess volumes of used and contaminated refrigerant which needs to be reclaimed. Thermco can then have the refrigerant recycled by Halozone.

Thermco has also developed a system that gives companies control over their refrigerant once it is recovered. Within the Montreal Protocol guidelines, Thermco provides several arrangements for storage and reuse of the refrigerant through its Refrigerant Banking System. Companies can benefit from this system through dividends and other arrangements.

These two companies, Halozone and Thermco have developed practical solutions to the economic and environmental challenges facing companies today. At the same time, they are turning a profit. Already Thermco has major contracts with Brewers Retail stores and Loblaw Companies Ltd.

Carla Doucet

Environmental Services

The environmental services industry has seen a marked increase in business during the past few years as more companies want to become environmentally conscious. The Delphi Group, established in 1986, is an example of an environmental services firm that works to promote sustainable forms of enterprise which respects ecological preservation.

The Delphi Group presents a range of environmental services to its clients including environmental audits and assessments, environmental corporate and public policy design, environmental feasibility studies, environmental management education and training, and environmental finance and investment. A wide array of other trade, financing and communication-related services are also available to business enterprises, public sector agencies, voluntary organizations and independent policy institutes. In particular, The Delphi Group has worked on an environmental audit of a major hotel chain, financing of rainforest conservation in Latin America, and assisting in the transfer of environmental technologies from industrialized countries to emerging economies.

This organization has also been working to link sport and the environment through its *Green Games Guide* initiative. Based on experience gathered from large and small-scale sporting events, the Delphi Group is producing a guidebook to run sporting events in a manner which preserves the environment. Sporting events such as the Olympics and Canada Games can have a significant impact on the environment of the host city or region. Paying more attention to environmental matters would not only provide better conditions for competition, but would leave a positive environmental legacy for the community. Upon completion, expected in mid-1994, the guide will be distributed both domestically and internationally to sport, fitness and environmental organizations.

The Delphi Group has offices in Vancouver, Ottawa, and London, England, along with various other operations around the world. This organization has produced several publications including *Environmental Risks, Opportunities, and Financing in Eastern Europe and the Former Soviet Union* and *Ecofunds: An International Business Guide to Environmental Finance* (to be released in 1994).

Edwin Smith

Corporate Reporting for Sustainable Development What is it, Anyway?

Stephan R. Barg

Sustainable development reporting requires integrating information from the society, the economy, and the ecosystem — a formidable task. So how is a company supposed to do sustainable development reporting?

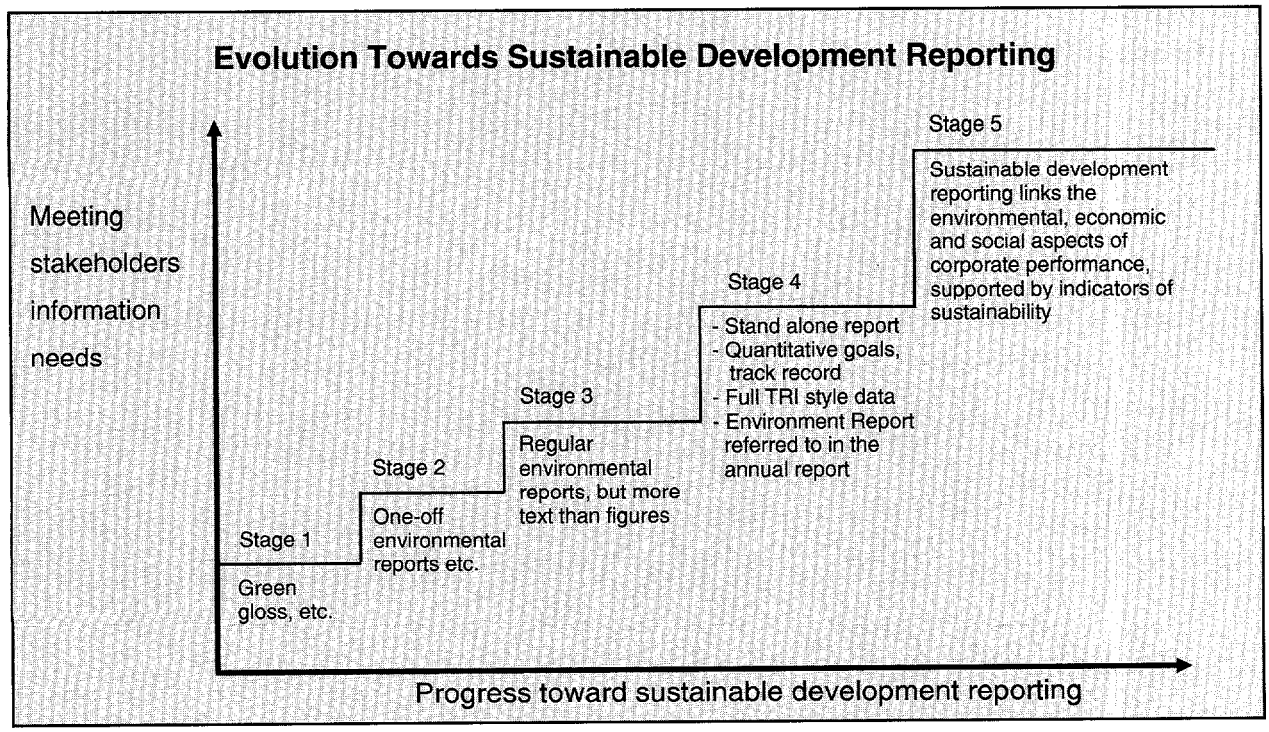
We do not yet have the full answer. Just as societies are trying to come to grips with the implications and specifics of moving toward sustainability, so too are companies. This article reviews where companies are starting from and the progress being made.

Reporting, of course, is about presenting information to interested audiences. Sustainable development brings some new audiences into the picture. Reporting is also about meeting goals, and sustainable development brings some new goals — both those set within the company, and those set outside the company. Many of these are not very clearly defined, and so present a moving target. Furthermore, much work remains in developing the indicators of success.

New audiences, new goals, new indicators — where is a company to start? The answer is the usual one —start from where you are, and go forward step by step. Many companies find that they have already moved some way down the road.

Corporate reporting is still based on financial reporting which helps managers run the company and lets shareholders know how the company is doing.

An environmental reporting system is now being developed alongside the financial reporting system in many companies. To date, its indicators are defined largely by legislation about emissions: there is nothing so simple as the single unit of account that the dollar provides in financial reporting, and there is little international standardization.



But companies are finding that environmental reporting is not a black hole into which they are being urged to jump with little assurance of success. They are building on experience and pulling together a variety of information and feedback from their stakeholders, and taking a step-by-step approach.

Companies often start with a statement of environmental policy. This sets some general goals, responding to the company's stakeholders and the company's own perception of its environmental responsibilities.

Policy and results can be communicated in several ways — with the best medium depending on the target audiences. Shareholders are interested in company-wide results, perhaps with an emphasis on financial implications and potential liability problems. But the communities in which a company operates are primarily interested in the local plant.

Some of the best companies are meeting this variety of needs through the publication of a separate environmental report, which provides more detail for those interested. As experience develops, it may be that the trend to separate reporting will reverse itself, because sustainable development reporting requires more integration of financial and economical information.

Is environmental reporting moving toward sustainable development reporting? Again, yes, step by step. The diagram on the facing page shows the steps that many leading companies feel are involved in the development of sustainable development reporting. (It is drawn from *Coming Clean: Corporate Environmental Reporting,* a joint project of the International Institute for Sustainable Development (IISD), Deloitte, Touche Tohmatsu International, and SustainAbility. It is available from IISD or Deloitte and Touche within Canada.)

Integrated indicators of sustainability are only just beginning to evolve. They need to show how a company is meeting its financial, environmental and social goals and obligations. These goals must be integrated and pursued simultaneously. The company that optimizes its results in all three areas will work well in a sustainable society.

As businesses deal with their stakeholders and as both stakeholders and businesses work out the kind of information that is useful in measuring how a company is progressing toward meeting this definition, corporate reporting will evolve. Goals indicators, and information media are all being developed. While there is a very long way to go, the leading companies seem generally to be moving in the right direction.

Stephan Barg is the Government and Business Program Director, International Institute for Sustainable Development.

THE STATE OF CORPORATE REPORTING

The NRTEE's Task Force on Sustainability Reporting is preparing a research report for its members. As part of its research, it commissioned three papers on reporting (available from the NRTEE). The following is a short summary of one of the reports, on corporate reporting, by David Nitkin and David Powell of Ethiscan.

"The state of sustainable development monitoring and reporting is critical to Canada, not only in terms of our competitiveness, but also the quality and well-being of our environment. At issue are such topics as international standards for state-of-the-environment reporting, the partnership agenda between business and government, the fundamentals of private sector cost-benefit analysis and economic decision-making, and the health and welfare of workers, communities and regions. These in turn impact upon long-term availability and use of resources, Canada's standard of living, international investment in Canada, and integration of environment, economy, health and ethics into one organic decision-making whole.

To date, Canadian businesses and industry associations are wary about corporate environmental reporting. Fewer than one in a hundred corporations are committed to releasing an annual state of the environment, sustainable development report. Only about seven in every hundred firms even report internally on a regular basis to their board of directors on environmental matters. The reasons for such caution are numerous and often plausible.

Notwithstanding this slow progress, there are some excellent precedents and models of 'cutting edge' or 'leading edge' behaviour to be observed. This is heartening because there is evidence that our international trading competitors are adopting waste, packaging, management, transportation, audit and other sustainable practices that represent the highest rather than lowest environmental standards. This will challenge the ability of Canadian companies to compete abroad and, with freer trade, at home as well. Monitoring and reporting on corporate and national sustainable development progress will help inform the public policy debate about economic efficiency, environmental effectiveness, and social equity.

A significant gap exists between what can ideally be reported and what is actually being reported. There are some components of corporate sustainable development reporting that can be called desirable as of 1993. Sustainable development reporting should be nurtured but not regulated; encouraged but not standardized; reinforced but not necessarily legislated. A number of opportunities exist for corporations, government, risk assessment professionals, and other stakeholders to nurture, reinforce and otherwise promote levels of desirable monitoring and reporting."

The Environment: Job Killer or Job Creator?

Kirk Falconer

For the past three years the Canadian Labour Market and Productivity Centre has been studying the relationship between jobs and the environment. Kirk Falconer reports that contrary to popular belief, protecting the environment can stimulate job creation.

Conventional wisdom says there is a natural enmity between employment and actions to promote or protect the ecosystem, however, recent Canadian and international data and analysis indicates the job-environment relationship is much more complex. Furthermore, stronger environmental standards do not always imply bad news for the national economy.

Over the last three years, the Canadian Labour Market and Productivity Centre (CLMPC) has sought to develop our understanding of this issue. In 1992, the CLMPC published a report entitled *Environmental Protection and Jobs in Canada; A Discussion Paper for Business and Labour* which helped to establish parameters for examining environment-economy questions from a policy perspective. It also highlighted the importance of adjustment measures for the purpose of sustainable development.

The CLMPC reported several broad findings of current research. The first of these is that the economic and job effects of an environmental program can differ over the life of that program. For most firms, new standards mean new spending on an environmental solution, such as an end-of-pipe pollution control device. This is spending that might otherwise go to production and job-creating projects. Many economists contend it is the cumulative weight of these costs that cause adverse consequences, like a reduction of output and layoffs.

However, in the near-term, there may be some employment stimulation as a result of the initial expenditure. Impacts very much depend on the nature of the environmental action under discussion. The 1990 introduction of Ontario's emission limits on all industrial sources of air pollution, for instance, followed the typical pattern of concurrent positive and negative effects, both direct and indirect, over time. What is important to note here is the cycle of job changes and the propensity for trade-offs in affected enterprises and industries.

In the final analysis, the net employment outcome is of concern. This brings us to the CLMPC report's second observation: that the macroeconomic impact of environmental measures is, in most cases, marginal. Study after study reveals that whatever the job consequences, they are small on an economy-wide basis. This conclusion deflates the long-held view that environmental regulation is a serious drag on national economic performance and competitiveness.

At the same time, the influence of environmental initiatives on certain industrial sectors is by no means small. This is the report's third observation. On a microeconomic basis, increasing environmental costs and responsibilities can impose moderate-to-severe job losses, immediately or in the long-term. Recent history provides several illustrations. Domestic asbestos mining and asbestos-based manufacturing, for instance, is virtually finished today due to successive foreign regulations. Their activities previously supplied thousands of Canadian jobs. The commercial fur industry which once sustained remote aboriginal communities has also been sharply curtailed by government and consumer actions.

More common is the continuous pressure applied to many top Canadian resource and manufacturing industries. Due to high compliance costs, industries such as forest products, primary metal fabricating, chemicals, iron and steel, metal and non-metal mining, rubber and plastics manufacturing, petroleum and coal manufacturing, food and beverages and electrical utilities, are all going through a form of environmental restructuring. For some, this process combines with other cost and market pressures to produce incremental job losses.

On the other hand, stringent standards can generate significant economic returns, even in high-cost sectors. For instance, efforts to conserve and rehabilitate renewable natural resources, such as forests, fishing stocks and arable land, can act to preserve future employment in related industries.

In addition, large industrial spending on environmental innovation and

technology can create or stabilize jobs through productivity improvements. Moreover, some firms have turned investments to commercial advantage by developing a range of environmental goods and services. Research shows this can be the most substantial and positive economic outcome of all. In 1992, the employment size of Canadian environmental industries (often the spinoff of older, more traditional industries) was estimated at around 60,000 - 70,000 and growing. In the United States, job growth in this sector has been shown to outdistance total environment-related job decline elsewhere in the economy.

Fourthly, environmental protection bears implications for employment quality. A new body of literature suggests that environmental restructuring supports the general labour market trend towards more knowledge-intensive jobs. Certainly, this is evident in the emergence of environmental industries. In fact, one of the primary constraints on this sector in Canada is shortages of skilled labour, such as engineers, scientists, researchers, technicians and technologists.

Finally, environment-led economic and job effects change with environmental priorities. Public opinion has put the ecosystem higher on Canada's political agenda in recent years. As well, specific problems, such as ozone layer depletion, have assumed prominence. In future, sustainable development may require more fundamental changes to the material and productive foundations of Canadian society. And while the potential job impact of these may not be of great magnitude overall, neither is the path likely to be challenge-free, especially for some sectors, regions and local communities.

It is difficult to discern the influence of environmental standards on the Canadian economy in 1993-94. Clearly, the recession has slowed government regulatory initiatives. At the same time, pressures persist for several industries since the investment demands of on-going programs do not vary with economic cycles. An analysis conducted by Informetrica, Ltd., for the CLMPC projected modest environment-related gains and losses in employment for the balance of the decade.

Public policy and industry decision-making cannot be neutral in the jobs-environment relationship. Research reveals that each plays a crucial role in minimizing disruption and maximizing benefits across the national economy. Helping sectors manage adjustment and lifting barriers to the growth of environmental industries and the diffusion of environmental technologies and processes are important objectives in this regard. Definitive steps must be taken jointly by business, labour and government, says the CLMPC, to achieve a sustainable level of clean and green employment in Canada.

Kirk Falconer is Program Staff, Canadian Labour Market and Productivity Centre.

SUSTAINABLE PROSPERITY AND JOBS

Shirley Carr, President, Canadian Labour Congress, in a speech to the CLC National Environment Conference, November, 1990:

"We can be quite confident that in the longer run, jobs and the environment are quite compatible. Some environmentally friendly practices are labour-intensive, but the transition to a sustainable economy is not going to be easy and it will be tempting to the government – to any government – to ignore the plight of workers caught up in environmental change.

Several remedies have been suggested, including an environmental compensation scheme and a properly financed environmental retraining scheme.

But, if this problem is not hard enough, I want to suggest that we have an even bigger problem which even progressive governments such as those in Scandinavia, have found hard to resolve. The dilemma is this. Our present economy, based on resources, primary processing and some manufacturing, is not enough to sustain full employment. We have serious unemployment, underemployment, unjust pay-inequity and job-inequity and major regional disparities. Environmental activism can make these industries cleaner and friendlier to workers, but it cannot increase employment in these areas in any major way. Perhaps the reverse is true: that technology that befriends the environment is in these major industries less labour-intensive, compounding the employment problem, not resolving it.

The only answer, as I can see it, is to adopt an industrial strategy that will create clean high-tech industries in Canada. Again, Scandinavia is the model, though we have something to learn from Austria and even, dare I say it, from Japan on account of its industrial energy efficiency.

Only if we combine industrial strategy with environmental protection will we get sustainable prosperity."

Financial Services and Environmental Risk

J. Anthony Cassils

Tony Cassils argues that the financial services industry can make a major contribution toward achieving sustainable economic development. As well, a proactive strategy could help corporations improve their bottom line and enhance productivity.

The insurance industry paid out over $16 billion for damage caused by Hurricane Andrew in Florida, and they have begun to explore the full potential costs of global warming, its causes, and to consider ways they can help to prevent contributing factors. Most banks in Canada have developed extensive questionnaires which focus primarily on contamination of land or groundwater, issues that could bankrupt their clients and reduce the value of their collateral. Meanwhile, some investment analysts, investment counsellors and some of the rating services are looking at environmental risk more closely, while green investment funds have been growing steadily. By a process of deduction, the financial services industry is beginning to recognize the importance of environmentally sustainable practices for future economic health.

Companies in the financial services industry can make a major contribution towards achieving environmentally sustainable economic development. As intermediaries, they are responsible for the efficient allocation of capital. As managers of risk, the skill with which financial capital is allocated will determine the future sustainability, prosperity and competitiveness of their respective countries. As managers of information, they have the ability to adapt quickly to new data and to respond to the urgent need for more sustainable economic practices.

Companies in the financial services industry recognize that, increasingly, environmentally sustainable economic development will be the basis for governmental and business policies. This puts their clients at risk, as well as their directors, top management, and companies. This implies that companies in the financial services industry will benefit by applying the principles of sustainable development throughout their business, by taking charge of their own agenda to maintain the initiative and avoid criticism, and by being proactive in dealing with all their stakeholders including regulators.

Companies in the financial services industry can undertake some major tasks that will have a profound effect on the way business is managed in Canada. Some have made considerable progress already. As a first step, they can develop criteria which will allow them to measure how companies approach environmentally sustainable development, and to factor that into lending, insurance, and investment decisions. Secondly, they might create a system to distinguish between companies that practice management for environmentally sustainable development and those that do not. To support these initiatives, they could ensure that their own internal operations are in alignment with the principles of sustainable development, and that these policies apply to their subsidiaries in all segments of the financial services industry.

These steps will send clear signals in the business community. Companies applying management for environmentally sustainable development will have easier access to insurance coverage and to capital at favourable rates. Polluters will be faced with tougher environmental regulations, and will be obliged to justify their activities with their suppliers, the consumers of their products, and their financial institutions. Some polluting companies may be charged a higher rate for funds, if they can obtain capital at all, and may be denied insurance coverage. Many companies will be encouraged to adopt management practices for environmentally sustainable development very quickly; and, in many cases, this will provide them with im-

In applying sustainable development criteria to their clients, the financial services companies will not be acting as environmental gatekeepers or regulators, they will be integrating into their businesses, risks made evident by the rapidly expanding body of scientific information on the environmental consequences of current human activities. In other words, they will be doing their job better.

Sustainable Capital

Helen Sinclair

Banks have a constructive role to play in promoting sustainable development. CBA president Helen Sinclair discusses how Canada's banks are coming to terms with environmental risk.

There is scarcely an industry in the country that doesn't contribute to our broadly defined environmental problems. For its part, the banking industry is making significant progress in defining its role on the environmental front.

There are two broad issues facing the banking industry: credit risk and environmental liability. We accept credit risk, while attempting to minimize it, because it is an integral part of banking. It's something bankers have dealt with for many years and in a number different contexts. As a lender, it's riskier to lend to a polluter than to a non-polluter, all other things being equal, especially in today's world where the polluter may be assessed the costs of clean-up or where the lender may eventually become liable for clean-up if the polluter is unable to pay.

The other issue, environmental liability, exposes us to undue risk. It makes us very uncomfortable. As a lender, you can be liable for and beyond the amount you have exposed yourself to in lending to a customer. There are many examples of this in the banking industry. For instance, a battery recycling plant in New Brunswick was closed due to excessive levels of lead particles and dust. The bank had about $650,000 outstanding in loans but it was reluctant to foreclose on the loan and take possession of the business because of the potential for environmental liability. The owner was willing to sell the company and turn over proceeds to the bank; however, the sale price was unlikely to meet the outstanding bank debt. The bank wanted to recover the shortfall under its guarantee from the Atlantic Canada Opportunities Agency. This is where a "Catch 22" came into play. The terms of the guarantee required the lender to realize on the security before any funds could be claimed. If that were done, the bank might incur clean-up liability which could exceed the amount of its loan in order to recover anything under its government guarantee.

In another case, one of Canada's chartered banks made a $1 million construction loan for an upscale residence. The mortgager defaulted on the loan two years later when the residence was about two-thirds completed and not yet landscaped. The bank took possession of the

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Cassils from pg. 16

mediate benefits, as well as contributing to the well-being of the country.

In applying these criteria to their clients, the financial services companies will not be acting as environmental gatekeepers or regulators, they will be integrating into their businesses, risks made evident by the rapidly expanding body of scientific information on the environmental consequences of current human activities. In other words, they will be doing their job better.

Although it is expected that environmentally sustainable development will bring many benefits, the transition may be more successful if done smoothly to avoid unnecessary shocks. This will be assisted if the new standards are telegraphed well in advance so companies have time to adjust. Some environmentally damaging companies wishing to invest in more sustainable products and processes will need to have access to capital. In some cases, intense international competition may make it difficult for companies to afford the initial investment required to move towards sustainable development; this is a real problem that will require the close collaboration of regulators, the financial services industry, and business in general.

Some companies in the financial services industry are meeting the environmental challenge. Swiss Reinsurance has set up a greenhouse effect project team, which has already warned of the consequences of high exposure to insuring for catastrophic losses in cities such as New York or Tokyo. They have noted that an ocean temperature of 28 degrees centigrade or warmer is required for hurricanes, and in recent years, the surface area of oceans at these temperatures has been growing.

The National Westminster Bank has focused on improving its internal environmental performance. In their Environment Report for 1993, they describe the initiatives they have taken to conserve resources, and estimate that they are saving the equivalent of about $20 million Canadian a year.

Quite clearly, good information on the environment will contribute to the future success of companies in the financial services industry.

For over 20 years Anthony Cassils has advised senior decision-makers in the public and the private sectors on issues of public policy and business strategy, and has spent 10 years in the financial services industry.

Sinclair cont. from pg.17

property, hired a contractor to complete the landscaping and then sold it for $700,000. Shortly after the sale closed, the purchaser notified the bank that medical waste, needles and syringes, was surfacing around the property. Apparently, this waste had been "midnight-dumped" on the vacant property while the bank was in possession and inadvertently spread around by the contractor, then covered by a thin layer of clean soil. The purchaser insisted the bank remove the waste and threatened to sue for damages. Even though the bank believed it had fixed its loss with the sale of the property, it had to incur additional costs for consultant and legal fees and pay about $100,000 for clean-up.

It is situations like these that cause us concern. In isolation, the dollar losses may not appear shocking but because these types of scenarios have frequently repeated themselves, the banks have lost significant amounts and stand to loose significantly more.

The banks, however, are taking a proactive approach and working with federal and provincial ministries of environments, other business groups and environmental organizations to create a more equitable system. The Canadian Council of Ministers of the Environment (CCME) Task Group on Contaminated Site Liability, which includes several stakeholder organizations such as the Canadian Bankers' Association, Canadian Environmental Law Association, Canadian Chemical Producers' Association, West Coast Environmental Law Association and the Canadian Petroleum Product Institute, developed a number of Recommended Principles that provincial governments can develop and craft into legislation and regulations.

Of significant importance to the banking industry is *Recommended Principle No. 6.* The CCME Task Group recommends that "lenders who hold a security interest in the property of a borrower should be granted a pre-foreclosure exemption from personal liability, beyond the outstanding balance of the debt, unless the lender had actual involvement in the control or management of the business or the borrower." This recommendation supports the notion of "polluter pays" and puts to rest the "deep pockets" theory which says banks must pay for the polluting problems caused by their clients, past and present. The deep pockets approach unfairly places the blame for pollution on innocent third parties and in so doing, impedes the ability of some businesses to obtain credit.

Recommended Principle No. 6 is a good, first step toward sustainable development — a cooperative partnership between economic and environmental initiatives. Economic initiatives must take into account their environmental effects and environmental initiatives must bear in mind their economic effects.

Not everything in the CCME Report meets with the banks' approval. The CBA has misgivings about the CCME recommendation that governments should have a super-priority to recover costs incurred in cleaning up contaminated sites. While we understand the reasons for their recommendation, a government super priority has the effect of increasing the credit risk associated with bank lending to a large number of businesses. The CBA would prefer that Crown claims exist as secured claims against a particular business.

From the CBA's perspective, there's more to environmental liability than simply recouping security. For example, certification for environmental auditors is crucial and we'd like to see the profession become self-policing. Currently, there are no rules governing environmental audits. The CBA is working with the Canadian Standards Association, the Canadian Environmental Auditors' Association and other stakeholders to develop a set of standards for audits and environmental management systems.

All of the banks have adjusted their lending policies and practices to incorporate environmental risks. They are training their account managers to recognize a borrower's environmental problems. Banks now ask their clients to fill out questionnaires, conduct audits or submit environmental statements as part of a business plan. We require this of all business borrowers, regardless of size. To assist bank customers, the CBA has produced a booklet outlining why banks seek this information and the basic environmental requirements that should be included in a business plan. The booklet is distributed to business owners across Canada. And all of the banks require external environmental audits for all new business loans where there are potential environmental problems. This form of due diligence takes a long-term view of the environment because it addresses the potential for contamination and liability before the trouble starts.

As businesses ourselves, how are we managing our own backyard? Most banks have set up internal green policies and are paying them more than just cursory glances. In addition, a substantial number of environmental programs are underway at all banks, e.g., newsprint recycling and using coffee mugs instead of disposable cups; many have been initiated by employees on a volunteer basis. After all, bank employees are everyday people who are part of the increasing trend towards environmental conservation.

At this stage, many questions on environmental liability remain unanswered: How do we prioritize the clean-up projects when budgets are tight everywhere? How should we deal with contaminated properties where the polluter is known but long gone? The banking industry believes it has a constructive role to play in forging solutions. Scaring off investors is clearly not the way to go. If we want sustainable development, we also need sustainable capital.

Helen Sinclair is President of the Canadian Bankers' Association.

Insuring Sustainability

Angus H. Ross

The insurance industry can play a crucial role in progress toward a sustainable society. Angus Ross, Chairman of the Insurance Bureau of Canada's Environmental Liability Committee, describes an insurance industry which is increasingly concerned with the environmental soundness of the projects that it is asked to insure.

As with most service industries, the impact of property and casualty insurance on sustainable development is, at first sight, limited. A deeper investigation will show that not only is insurance an integral part of the overall environmental picture, but it has the potential to be a leading partner in the prevention of pollution incidents.

Economic prosperity in a nation such as Canada depends on the production of raw materials, goods and, to a growing extent, services. Imbedded in the costs associated with these products is the cost of insurance.

Insurers in Europe, the USA and London — particularly Lloyd's — have found that the cost of being asked to provide a "social safety net" in terms of cleaning up past pollution, whether it be to property in the sense of remediation of land, or human in the case of asbestosis and other diseases, can far outstrip the resources provided by premiums collected in the past.

Inevitably the cost of past pollution incidents is factored into the premiums for today's risks, not only to recoup past losses but also as predictors of future events. This drives up the cost of today's policies, the cost to the producer, and ultimately has a major impact on the global competitiveness of the manufacturer.

Insurance premiums have also risen to accommodate the inflated legal fees that are associated with environmental liability cases. A recent study by RAND Corporation found that of settlements effected under the "Superfund" legislation of the United States only 12% of the money has actually gone to site remediation - the rest has been swallowed up in legal expenses.

Recognizing that an ounce of prevention is worth a pound of cure, the Insurance Bureau of Canada (IBC) produced the following *Statement of Principles Regarding Insurance and the Environment* as a guide to member companies in the treatment of insurance for risks associated with the environment;

- Environmental protection requires, first and foremost, the prevention of damage to the environment.
- Rapid clean-up of accidental damage to the environment should be given the highest priority in order to minimize risks to human health and natural resources.
- Insurance protection against costs arising from unintended pollution damage is normally available for home-owners and businesses unlikely to cause accidental damage to environment.
- For businesses whose economic activities involve clear but measurable risk of environmental damage, insurance can usually be purchased if such firms are willing to provide an independent environmental assessment report certifying that the necessary safeguards for the prevention of environmental damage are in place and remain in good working order, as evidenced by periodic additional inspections.
- Any regulated or legislated requirements to provide pollution insurance — in the absence of pollution abatement requirements that are clearly specified and enforced by governments — run counter to the principles of loss prevention and are therefore opposed by insurers.
- Pollution which is inherent to certain economic activities cannot be considered accidental and is therefore generally uninsurable. IBC members are encouraged to refuse to insure such businesses against costs arising from environmental damage unless necessary safeguards or process changes are adopted to ensure that such damage could only result from an unfortunate accidental occurrence.
- IBC members are encouraged to continue to decline pollution insurance coverage to businesses not operating within existing environmental statutes and regulations.

Gone are the days when insurers would accept environmentally hazardous risks with little concern over the practices and operations of their insureds. Nowadays there are far more calls for environmental audits and assessments, with no guarantee of coverage afterwards if adverse conditions are found. Seepage and gradual pollution is difficult to cover, and deliberate pollution, or pollut-

Cont. on pg.23

ICC BUSINESS CHARTER FOR SUSTAINABLE DEVELOPMENT

The International Chamber of Commerce has developed and adopted this Business Charter to promote common principles for the environmental management.

Corporate Priority

To recognize environmental management as among the highest corporate priorities and as a key determinant to sustainable development; to establish policies, programs and practices for conducting operations in an environmentally sound manner.

Integrated Management

To integrate these policies, programmes and practices fully into each business as an essential element of management in all its functions.

Process of Improvement

To continue to improve corporate policies, programmes and environmental performance, taking into account technical developments, scientific understanding, consumer needs and community expectations, with legal regulations as a starting point; and to apply the same environmental criteria internationally.

Employee Education

To educate, train and motivate employees to conduct their activities in an environmentally responsible manner.

Prior Assessment

To assess environmental impacts before starting a new activity or project and before decommissioning a facility or leaving a site.

Products and Services

To develop and provide products or services that have no undue environmental impact and are safe in their intended use, that are efficient in their consumption of energy and natural resources, and that can be recycled, reused or disposed of safely.

Customer Advice

To advise, and where relevant, educate customers, distributors and the public in the safe use, transportation, storage, and disposal of products provided; and to apply similar considerations to the provision of services.

Facilities and Operations

To develop, design and operate facilities and conduct activities taking into consideration the efficient use of energy and materials, the sustainable use of renewable resources, the minimization of adverse environmental impact and waste generation, and the safe and responsible disposal of residual wastes.

Research

To conduct or support research on the environmental impacts of raw material, products, processes, emissions and wastes associated with the enterprise and on the means of minimizing such adverse impacts.

Precautionary Approach

To modify the manufacture, marketing or use of products or services or the conduct of activities, consistent with scientific and technical understanding, to prevent serious or irreversible environmental degradation.

Contractors and Suppliers

To promote the adoption of these principles by contractors acting on behalf of the enterprise, encouraging and, where appropriate, requiring improvements in their practices to make them consistent with those of the enterprise; and to encourage the wider adoption of these principles by suppliers.

Emergency Preparedness

To develop and maintain, where significant hazards exist, emergency preparedness plans in conjunction with the emergency services, relevant authorities and the local community, recognizing potential transboundary impacts.

Transfer of Technology

To contribute to the transfer of environmentally sound technology and management methods throughout the industrial and public sectors.

Contributing to the Common Effort

To contribute to the development of public policy and to business, governmental, and intergovernmental programmes and educational initiatives that will enhance environmental awareness and protection.

Openness to Concerns

To foster openness and dialogue with employees and the public, anticipating and responding to their concerns about the potential hazards and impacts of operations, products, wastes or services, including those of transboundary or global significance.

Compliance and Reporting

To measure environmental performance; to conduct regular environmental audits and assessments of compliance with company requirements, legal requirements and these principles; and periodically, to provide appropriate information to the Board of Directors, shareholders, employees, the authorities and the public.

NATIONAL ROUND TABLE OBJECTIVES FOR SUSTAINABLE DEVELOPMENT

The National Round Table on the Environment and the Economy has developed the following Objectives for Sustainable Development to serve as a guide for all Canadians working toward the goal of a sustainable society.

The natural world and its component life forms and the ability of that world to regenerate itself through its own evolution has basic value. Within and among human societies, fairness, equality, diversity and self-reliance are pervasive characteristics of development that is sustainable.

I Stewardship
We must preserve the capacity of the biosphere to evolve by managing our social and economic activities for the benefit of present and future generations.

II Shared Responsibility
Everyone shares the responsibility for a sustainable society. All sectors must work towards this common purpose, with each being accountable for its decisions and actions, in a spirit of partnership and open cooperation.

III Prevention and Resilience
We must try to anticipate and prevent future problems by avoiding the negative environmental, economic, social and cultural impacts of policy, programs, decisions and development activities. Recognizing that there will always be environmental and other events which we cannot anticipate, we should also strive to increase social, economic and environmental resilience in the face of change.

IV Conservation
We must maintain and enhance essential ecological processes, biological diversity and life support systems of our environment and natural resources.

V Energy and Resource Management
Overall, we must reduce the energy and resource content of growth, harvest renewable resources on a sustainable basis and make wise and efficient use of our non-renewable resources.

VI Waste Management
We must first endeavour to reduce the production of waste then reuse, recycle and recover waste by-products of our industrial and domestic activities.

VII Rehabilitation and Reclamation
Our future policies, programs and development must endeavour to rehabilitate and reclaim damaged environments.

VIII Scientific and Technological Innovation
We must support education and research and development of technologies, goods and services essential to maintaining environmental quality, social and cultural values and economic growth.

IX International Responsibility
We must think globally when we act locally. Global responsibility requires ecological interdependence among provinces and nations, and an obligation to accelerate the integration of environmental, social, cultural and economic goals. By working cooperatively within Canada and internationally, we can develop comprehensive and equitable solutions to problems.

X Global Development
Canada should support methods that are consistent with the preceding objectives when assisting developing nations.

Full-Cost Accounting: Opportunities and Risk

Daniel Blake Rubenstein

Full-cost accounting can begin to provide information which bridges the gap between what is good for business and what is good for the environment. Dan Rubenstein looks at its potential for business.

It makes sense that companies should be investing in natural capital — forests, wetlands, clean air or river systems that are essential to a company's long-run economic survival.

For example, a pulp and paper company is dependent on a productive forest ecosystem for its continued economic survival; a chemical company is dependent on land-fill to store toxic chemicals. Maintaining these assets will require capital and operating outlays that may reach almost $500 billion a year by the end of the century.

Some forward-looking companies are starting to incorporate environmental costs into their criteria for decision-making. In order to do this, they need financial and environmental information that is integrated in one package that allows decision makers to model different investment scenarios. They need to know the costs of the depletion of natural capital, such as forests, river systems, and clean air.

For the past two years, I have been working with the United Nations Conference on Trade and Development to develop a methodology to compute fuller costs that include a rough estimate of environmental costs. A progressive forest management company participated in the research (see *Policy Options*, September, 1993, which describes some of the research; the balance will be reported in a book to be published next summer by Quorum Books).

This North American forestry company started with the concept of managing natural resources to meet the expectations of the present and next generation. The company's controller, and a team of ecologists and scientists developed a new valuation framework for "off-balance sheet" natural assets that never appeared on financial statements.

Their starting point was the fuller-costing methodologies developed by the Environmental Protection Agency and other corporate leaders in managing environmental risks. Most of these models estimate the potential cleanup costs of toxic wastes that leach into the water table. These basic models were expanded to account for wildlife, soil fertility, aquatic habitat — over a 40 year time horizon. The controller accounted for the commercial value of forest, and the non-commercial value of critical components of the forest ecosystem, such as the fertility of the soil.

Starting with a baseline dollar value for the ecosystem, the multi-disciplinary team computed the potential asset depletion rates for three difference forest development scenarios. Using these asset depletion rates, the team then computed fuller costs. These clearly demonstrated that the real costs of business, once the environmental costs were visible, were the same as the costs of striking a middle course and investing in the preservation and remediation of natural capital.

The company's financial and non-financial information was summarized in a "Stewardship Report" for the board of directors. It analyzed return on investment and product costs, under fuller-cost accounting. In the process of preparing these accounts, the team developed a modern definition of profit that accounts for changes in natural, as well as business capital.

Perceptive readers may well wonder why the traditional accounting model does not provide the information that senior management needs to chart a middle course of investing wisely in the environment.

The traditional accounting model suffers from a fundamental conceptual flaw when it comes to dealing with long-term, undefined liabilities which have low probabilities of occurrence, but would be extremely costly if they did occur (environmental disasters). Examples of expenses in this category include warranty liabilities or trillion dollar environmental obligations (in the U.S. alone it is estimated that environmental liabilities for the clean up of past toxic spills could ultimately approach $7 trillion). This flaw in methodology is becoming more serious, now that environmental obligations have increased.

The traditional accounting model can be expanded to meet this challenge. Using the analogy of photography, the key is to change the shutter speed, and the lens. Traditional financial reporting takes a photograph of a company's financial

condition at a given point in time. This photograph is based on a conventional definition of assets and liabilities, using a conventional lens. The time-frame, or shutter speed, of this photograph is relatively short, a given day for the balance sheet and the past year for the income statement. In the case study, I experimented with taking a picture of a company, using a much wider angle lens and a longer time-frame — two generations. By doing this, accountants can begin to provide information to bridge the gap between what is good for business and what is good for the biosphere. And if accounting is not part of the bridge between these two philosophical solitudes, it will be part of the abyss that separates them.

Daniel B. Rubenstein, C.A. has been a practising accountant for over two decades, with experience in the private sector, Crown corporations and the public sector. Currently, he is working as a legislative auditor.

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ants released within government guidelines as a by-product of an industrial process, is now excluded. This is a far cry indeed from the state of things 30 years ago.

It is not surprising that environmental liability should have been recognised by the insurance industry as one of the five most urgent items on its national agenda.

As the industry wrestles with how to deal with the problems of retroactive liability, government legislation, clean-up costs, defence issues and the morality of issuing pollution cover to known polluters, it remains cognisant of its economic role in the nation's commerce. The insurance industry is prepared to play its part in the prevention of future pollution incidents, in the clean-up of the genuine accidental occurrences but it has no role (nor sufficient funds) to act as a social safety-net for the general cleaning-up of environmental disasters caused as a result of society's desire for consumption in the guise of progress.

By the end of this decade it is quite possible that environmental liability will be a separate class of insurance totally excluded from general liability. It will readily be available on an affordable basis for responsible insureds practising prevention to strict guidelines. Companies unable to purchase protection would just have to suffer the financial and political consequences.

Angus Ross is President of Sorema Management Inc., Chairman of the Insurance Bureau of Canada (IBC) Environmental Liability Committee and Chairman of the Reinsurance Research Council.

SUCCESS STORY: 3M Canada Turns Waste into Jobs

Increasingly, businesses are realizing that protecting the environment can create savings. It makes sense that by reducing inputs, conserving energy, reducing or eliminating waste, production processes can become more efficient. In these recessionary times it is the companies that are streamlining production that are turning a profit.

Take 3M Canada Inc., for example. They are about to open a new plant in Brockville, Ontario that will create 50 new jobs. Not transferred jobs, but new ones. The Canadian site was chosen over locations in the U.S. and Mexico because of 3M Canada's reputation for on-time, quality products. How are they able to do this? Through a corporate strategy that takes into account the environmental consequences of production.

This strategy, called the Pollution Prevention Pays Program, has been in place at 3M since 1975. This program has generated savings of hundreds of millions of dollars since its inception. Bob Whelan, Manager of Corporate Information, says: "We are operating on the assumption that it is easier, cheaper, and more profitable to eliminate pollution at source." The program has focused on the elimination of pollution through product reformulation, process modification, redesign of equipment and recovery of waste materials. Consequently, 3M Canada has built its export sales share from 2% to 20%, while taking the environment into consideration. This is proof positive that sustainability and prosperity do go hand in hand.

At its Perth, Ontario plant, 3M's strategy has led to new products from what was once considered waste. Adhesive by-products that would have once required waste disposal are now being sold to a running shoe manufacturer as a raw material. Plastic by-products are now being used as input to GI Joe figurines.

Through action like this 3M is able to profit from its waste. A solvent used in the manufacture of a popular scotch brand scouring pad has been replaced with water, thereby eliminating chemicals and cost from the manufacturing process. In addition to this, the Perth plant has reduced its landfill waste by 98%, simply by finding uses for the waste in the plant itself or in other businesses. This plant is now serving as a model for other 3M plants around the world.

Dave Nosworthy, Material Handling Supervisor at the Perth plant, believes the programs initiated at the plant have been well-received by the plant's employees. "As a matter of fact, by bringing the problem to the attention of the people on the floor, they often come up with ideas and results faster than management. We couldn't have had the success we have had without their commitment."

3M's Pollution Prevention Pays has been profitable for the company, the employees and the communities in which the plants operate. 3M knows that environmental responsibility makes good business sense.

C.D.

Shifting the Battlefield: Consensus in Canada's Forest Sector

John Houghton

I don't think I have lived through a time of greater change in the forest and forest products industry than in the last few years. There was little question, 20 years ago, about Canada's future forest resources. It provided unending supplies of a useful product and a profitable export, and was a mainstay of the Canadian economy. Few people in the small company towns where I grew up challenged the idea that forest companies were responsible managers of a renewable resource.

We in the industry knew a great deal about forests, and it came as a shock — almost an insult — to many of us to find that "outsiders" could criticize, even condemn us for destroying this resource which nobody had thought at risk before. Denial was our first response — "Ignore them, they'll go away". But change began to creep in. My own industry group, the Canadian Pulp and Paper Association (CPPA) adopted an environmental code, and governments began to talk about "sustainable development". I had worked on environmental issues as a CPPA member, but still had little idea what to expect when asked to join the National Round Table in 1990. Could this widely assorted group of Canadians, some with diametrically opposed ideas on what sustainable development was all about, reach some consensus on complex issues in the resource sector?

Members of the National Round Table asked if a Sector Round Table could be set up to consider the issue of the sustainable management of all forest resources. We approached environmentalists, union people, aboriginal groups, bureaucrats, academics, and industry, and asked if they wanted to sit down together to see if they could forge a common view on the future of Canada's forest. No one was optimistic, but they gave it a try — and 18 months later they had hammered out a unanimous set of principles (available from the NRTEE), signed by all their parent organizations. They are also working on action plans covering the contribution each organization will make to those principles.

Was it worth it? As one industry vice-president put it: "Being part of this round table for my company was expensive. I was away a lot at a crucial time. Still, inherent faith in our future brought this diverse group of players together to do what we can for our common good. I learned a lot. I changed my views on quite a few things." A union member of the group added: "We started off being very general, and we are now very specific and hard-nosed, and that was a result of the trust developed in the room." One of the environmental representatives summed up by saying "We were neither each other's critics nor lovers ... We enjoyed our greater efficiency created by putting all our cards on the table."

John Houghton, a member of the National Round Table, is chairman of QUNO Corp., Canada's fifth largest pulp and paper company.

SECTOR DIALOGUES

An effective multi-stakeholder process can provide a fast track to sustainable development. It can lead to the development of insight and strategies that might otherwise elude corporate managers or government regulators. Strategies are easier to implement when all-party consent is sought at the beginning rather than the end.

In its advice to the Prime Minister on sustainability and prosperity, the NRTEE emphasized the importance of sectoral dialogues in developing a multi-stakeholder approach to sustainable development. It recommended that governments take an active role in these dialogues, where they exist, and that they implement their respective parts in the agreements achieved.

The NRTEE chose the forestry sector — Canada's biggest industry — for its first dialogue. After two years of hard work, 25 diverse interest groups reached a full consensus on a set of common principles on the use of Canada's forest resources in the future. The NRTEE commends the work of these stakeholders and urges governments to continue to support member groups in carrying out their action plans.

The NRTEE has also worked with stakeholders in the Tourism and Pulp and Paper sectors to develop detailed sectoral guidelines for sustainable development.

Tourism Industry Aims For Sustainability

Louis J. D'Amore

"Protecting the environment is both a moral obligation and a business imperative for the Travel & Tourism industry. As the world's largest industry it can effectively reach millions of customers with a coherent, compelling environmental message. And the leadership of the industry can and must persuade its members to adopt ecologically sound business practices. After all, a healthy environment is the travel industry's core product. If you can get it right, Travel & Tourism can truly become environmentally sustainable."

— Maurice Strong, 1993 Report of the World Travel and Tourism Council

Maurice Strong has agreed to be a keynote speaker at an international conference on sustainable tourism next fall. He will share his vision of Agenda 21 and the contribution that the travel and tourism industry can make to that vision.

In September, 1994, Montreal, Canada, is hosting "Building a Sustainable World Through Tourism", the second global conference of the International Institute for Peace Through Tourism (IIPT).

An estimated 1500 delegates from more than 80 countries will be in attendance, representing all sectors of the travel and tourism industry and related sectors.

The Conference — sponsored by the governments of Canada and Quebec — will focus on the presentation and discussion of some 200 success stories from around the world. Major emphasis will be on case studies related to the environment, culture and heritage, sustainable tourism in developing countries, and the promotion of international understanding and cooperation.

The Conference, which is endorsed by the United Nations Environment Programme (UNEP), the World Travel and Tourism Council (WTTC) and the World Tourism Organization (WTO), will aim to conclude with concrete recommendations and actions that can be taken by the diverse sectors of the travel and tourism industry in support of Agenda 21 and the Biodiversity Treaty.

In 1991, the Canadian tourism industry, through the initiative of NRTEE and the Tourism Industry Association of Canada (TIAC), was among the first of any country to respond to the challenge of the Brundtland Commission by developing a Code of Ethics and Guidelines for Sustainable Tourism. These codes and guidelines provide an excellent model for other countries.

The successful implementation of the tourism guidelines combined with the success of the Second Global Conference will create an enhanced image of Canada as a destination and help establish Canada as a leader in socially and environmentally responsible tourism.

For more information on "Building a Sustainable World Through Tourism," contact:
International Institute for Peace Through Tourism
3680 rue de la Montagne
Montréal, Québec, H3G 2A8
Tel: (514) 281-1822
FAX: (514) 848-1099

Louis J. D'Amore is President, International Institute for Peace Through Tourism.

SUCCESS STORY: Royally Green

The banking industry generally conjurs up a pretty clean environmental image — no polluting smoke-stacks or effluents discharged into rivers. Yet some banks still recognize the value in incorporating the environment into their decision-making.

The Royal Bank of Canada adopted an Environmental Policy in 1990 committing itself to managing its operations in a way that promotes sound economic growth and maintains a healthy environment. The key component of this policy is the bank's Environmental Risk Committee. This group draws its representation from all areas of the bank's operations. Its mandate is to assess the adequacy of present environmental risk measures and to implement changes where necessary. This is an effort to facilitate a consistent approach to environmental risk management. Once a project is approved the bank requires all clients to comply with applicable laws and sign certificates stating that they confirm their compliance. If there is evidence of unacceptable risk, environmental or otherwise, the bank may turn down the loan or review an existing arrangement.

As well, the Royal Bank is making changes in branches all across the country to reduce waste. In 1991 they issued a circular to all units across Canada detailing how to establish local recycling programs. Part of all recycling programs is a reporting mechanism to measure savings. A semi-annual report indicates that over 3,200 tonnes of fine paper, 58 tonnes of newsprint, 250 tonnes of corrugated cardboard, 20 tonnes of glass, 54 tonnes of plastic, 14 tonnes of cans, 13 tonnes of cooking grease and 400 pounds of silver-form microfiche, have been recycled. In addition to these end-of-use efforts, the Royal Bank is also focusing its efforts on reducing the amount of source materials it uses. For example, a new on-line viewing system reduces the amount of paper and microfiche in use.

Reductions like these and sound business decisions on the part of the Royal Bank reflect on their belief that human welfare depends upon both sound economic growth and maintenance of a healthy environment.

C.D.

Green Taxes: Could We Accept Them?

J. Anthony Cassils

If we tax "sin" products such as alcohol and tobacco, should we also be taxing activities which harm the environment? Tony Cassils examines the advantages and disadvantages of green taxes, a potential alternative to traditional command and control regulations.

During the past decade, an increasing number of governments have become interested in the potential of green taxes placed on environmentally damaging products and processes as a means to improve the environment, increase productivity, and raise revenue. This article will consider the following questions: What are the assumptions underlying green taxes? What are the benefits for business? If they are good, why are they taking so long to implement?

Traditionally, economists have assumed that growth in the consumption of natural resources indicates economic health and prosperity. More recently, growing environmental degradation has made evident that the full costs of economic activity have not been calculated. Moreover, countries which use natural resources more efficiently, such as Japan and Germany, have become economically dominant. This has led to a new assumption that the highly productive and efficient use of natural resources is a better indicator of national economic performance than gross resource consumption. However, the efficient use of natural resources is of secondary importance to most companies and individuals in Canada, because, often, the resources are underpriced.

Green taxes harness market forces to price more fully natural resources so that they will be used more efficiently. More immediately, their application to fossil fuels may help many countries to reduce their production of those gases contributing to global warming and to meet their international commitments.

Green taxes may represent a natural evolution of the tax structure. In Canada, the traditional role of taxation has been to provide a steady flow of revenue to governments following the five broad objectives of fairness, competitiveness, simplicity, consistency and reliability.

In recent decades, many governments have increased rapidly "sin" taxes on alcoholic beverages and tobacco products, based on the assumption that they raise revenue, discourage consumption of harmful products, and improve public health simultaneously. With the explosion of information on environmental degradation during the past 20 years, it is a logical next step to propose taxing activities harmful to the environment.

What are the benefits of green taxes for business? In many instances, they may reduce the burden of environmental regulations, while attaining environmental goals more efficiently. They leave more discretion to companies and individuals than "command and control" regulation.

Initially, green taxes may increase the cost of doing business for some companies if not offset by the reduction of other taxes. However, the benefits of green taxes will appear more subtly over the medium to long-term. There is no doubt that the imposition of higher environmental standards imposed by governments has encouraged business to seek new technologies and better products. Within the last year, Domtar announced a new technology to produce high grade paper from recycled cardboard, and is retooling a plant in Cornwall to use this technology, which will produce a competitive product at lower cost, while removing tons of cardboard from overburdened dumps. The point is there are many opportunities to improve performance even in a long-established Canadian industry such as pulp and paper, and green taxes can encourage positive change.

If green taxes provide some benefits, why does it take so long to implement them? There is a simple answer. Most people distrust new taxes, even though many advocates of green taxes suggest that they would be revenue neutral, with the revenue they provide allocated for the reduction of taxes on "good" activities such as work and savings. However, many people assume that green taxes will add to the overall tax burden. It will take time for them to reflect on the consequences if deficits continue unchecked or to consider the advantages of green taxes, which can provide double benefits by reducing both fiscal and environmental deficits.

From the perspective of regulators, most administrators of tax structures have been approached with schemes to hijack the system for one cause or another, and so they approach with scepticism a proposal for green taxes or ecological tax reform. While the argument to tax the environmental "bads" is attractive, it is likely to reduce both the activities and the revenues, and one of the prime concerns of tax administrators is to provide governments with a stable flow of revenue. Also, the green taxes are not entering a vacuum. The tax system is complicated and many natural resources such as energy are already subject to an array of taxes. It takes time to ascertain how these various taxes will interact.

Some countries are reluctant to be first with green taxes, as they know that companies, people and trade can migrate. For example, the European Community has proposed an energy tax to apply to all forms of non-renewable energy with an additional tax on the carbon content of fossil fuels. The purpose is to encourage energy efficiency and fuel substitution away from carbon-intensive fuels. Under the proposal, the tax would be introduced at a level equivalent to $3 per barrel of oil, to be increased by $1 per barrel annually until it reaches a level of $10 per barrel of oil equivalent at the end of seven years. The proposal reflects the art of compromise. It does not address subsidies for coal production in Germany, and it exempts energy-intensive industries. More significantly, the European Community will not adopt the tax until its major trading partners have adopted similar measures to reduce CO_2.

Despite the promise of green taxes, some businessmen express concern about the imposition of more taxes on the use of natural resources, since they hit polluters and non-polluters alike. Others prefer the direct regulation of pollution and set standards within which a company can operate without incurring additional charges. Also, in some cases, governments may enforce some environmental regulations leniently, and, on occasion, not at all. Taxes are harder to avoid, and easier to enforce.

Some environmentalists oppose green taxes, doubting that the market forces and the pricing mechanism can work to the benefit of the environment. Other supporters of the environment recognize the power of the market forces, and would like to harness that energy for environmental ends.

The lack of unanimity regarding green taxes was evident when the broad-based energy tax was proposed in the United States earlier this year. American energy prices are about 30% cheaper in real terms than they were a decade ago, lower than at any time since 1974. President Clinton proposed a broad-based energy tax that had excellent objectives: increase energy-efficiency of the economy for long-run competitive advantage, environmental improvement, enhance national security and the trade balance by reducing oil imports, and strengthen economic performance by substantial deficit reduction. When the policy emerged from Congress, the broad-based energy tax had been replaced by taxes on some fuels providing one third of the revenue of the initial proposal. Also the provisions that passed would reduce carbon emissions only by three million tons by the year 2000, or 3% of the national target, as opposed to 20-25% for the original proposal. While the compromise is disappointing to some, it does prepare the American public for more substantial energy taxes in the future.

Looking ahead, it is likely that green taxes will be used more extensively to achieve some environmental goals and will contribute a larger proportion of the revenue stream of nations. Eventually, the weight of these accumulated measures may merit the term "ecological tax reform". If green taxes achieve economic, environmental and fiscal ends more efficiently than more traditional measures, then countries applying them may become more prosperous, and that will be good for business.

Anthony Cassils is a consultant, based in Ottawa, who has worked for over 20 years with senior decision-makers in both the public and private sectors on issues of public policy and business strategy.

Friendly Cars

The Canadian Automobile Association is putting its money where its mouth is. The not-for-profit federation of 17 regional and provincial auto clubs across Canada has recently acquired an electric van. "CAA is a strong promoter of alternative fuels, which can have a positive impact on the environment, while diversifying Canada's energy sector", says CAA president Michael MacNeil.

The full size General Motors (GM) Rally Van, converted to electricity by Conceptor Industries of Newmarket Ontario, runs on a pack of lead acid batteries. Its top speed is 100 kilometres per hour, and its range is 60 to 100 kilometres before it requires recharging. Even the braking system is efficient. Every time the brakes are applied, it helps recharge the batteries.

Electric conversion is not the only way to lessen a car's impact on the environment. Through a variety of technologies, including catalytic converters and closed-loop emission controls, General Motors of Canada has cut vehicle emissions, including hydrocarbons, carbon monoxide and nitrogen oxides, by 90 percent since 1977. For its efforts, GM has received an Environmental Citizenship Certificate from Environment Canada.

The company has also pioneered the world's first high-production volume waterborne paint system. This system uses water to disperse the paint rather than solvents that were responsible for creating volatile organic compounds. GM has also switched to lead free paint at its car and truck assembly plants. GM has plans underway to begin phasing out CFCs from car refrigerants, and has begun work on remanufactured car parts as alternative at dealerships. This work may eventually lead to a "reusable" car through GM's GMX product line.

C.D.

Giving the Invisible Hand a Green Thumb

Mike Kelly

"It is immoral and irresponsible not to use the most cost effective means to achieve environmental goals, given the urgent competing need to address the other important social and economic problems of our population."

(Paraphrased from Joe Goff, Environmental Defence Fund, Washington D.C.)

Hard economic times and accelerating environmental deterioration have made it necessary for business and government to conserve both financial and environmental resources. Meanwhile, companies in every country face relentless international competition on price, quality and services. Now, many people are beginning to recognize that the competitive advantage of countries will depend increasingly on the efficiency and quality of governmental functions. The calculation of "efficiency" requires the inclusion of both financial and environmental costs.

In recognition of the importance of integrating the environment and the economy and improving the efficiency and effectiveness of governmental operations, some governments have been exploring the use of economic instruments to achieve environmental ends. Economic instruments are a natural evolution of the regulatory system, which, in most cases, they complement rather than displace. The immediate goal of an economic instrument is to achieve a given level of environmental protection at the least cost to society.

Economic instruments provide incentives to or place financial burdens on individual polluters, whether consumers, companies, or governments, in some cases, to the extent that the higher prices may change behaviour, increase efficiency, and reduce pollution. Some examples of economic instruments include: "green" taxes such as the "gas guzzler tax - gas sipper rebate" on the sale of new cars in Ontario; tradeable permits, whereby a ceiling is set on the amount of air pollution permitted in a given area, each company is given a limit, and companies buy and sell permits in the marketplace with the more efficient gaining a new source of revenue, while the laggards pay higher prices; charges for the use of environmental services, such as metering the use of water and charging by the bag for garbage collection; and, deposit-refund systems for everything from bottles to cars.

EXAMPLES OF MARKET INCENTIVES

- *Tradeable permits*
- *Restructured subsidies*
- *Full-cost pricing*
- *Full-cost accounting*
- *User fees*
- *Investment incentives*
- *Green taxes*
- *Deposit-refund systems*
- *Emission charges*

Economic instruments are often described as "market-based" because they reflect some of the environmental costs in the market prices of goods and services. In comparison with "command and control" regulations, the consumer has more choice, and can decide on the basis of price whether to buy or not. If environmental costs are built explicitly into the prices of goods and services, the responsibility for environmental consequences is put where it belongs, on the user, beneficiary, and the final consumer of natural capital. Appropriate pricing of environmental goods and services will encourage their more efficient and effective use.

Economic instruments can provide many benefits. They require society to be more explicit in defining its environmental values. They can contribute to the efficiency of government and reduce the cost of compliance for industry in some cases. Also, they can encourage those regulated to do better than meet the minimum standards. They can generate innovative ideas, spur research and development, and give rise to technological advances, improved processes, investment in plant modernization, and better management practices.

For policy makers, economic instruments provide greater flexibility to respond to uncertainty and changing scientific information. Changes of policy can occur by small increments rather than waiting for a major

overhaul. For companies, economic instruments can provide greater stability by allowing them to plan investment and evaluate new process technology over longer periods, provided governments telegraph their intentions well in advance.

At the national level, economic instruments can open the door to revitalized and environmentally sustainable economic development in Canada.

First, Canada can reach its environmental goals more effectively and faster.

Second, the tax base by which revenues are raised could be restructured to reduce taxes on savings, investment, property, and incomes.

Third, the use in other nations of market-based policy instruments improves their competitive standing relative to our own by reducing their costs on the order of 20-40% of total compliance costs. Since estimates are that defensive environmental spending ranges from 1.5–3.5% of GDP (much more in some industrial sectors), the potential savings to the economy is enormous.

Fourth, research and development is stimulated by the creation of markets for products rather than government pouring money through the hands of bureaucrats authorised to "pick the winners."

Although experience indicates that well-designed economic policy instruments can reach the environmental goal more quickly and much less expensively than the traditional "command and control" regulatory approach, economic instruments may not always the best choice. In cases of toxic discharges dangerous to public health or ecosystems, legal prohibition, effective enforcement, and painful penalties may be more effective and appropriate.

Least-cost solution

The implementation of economic instruments can encounter some barriers. As mentioned by Manitoba Premier Gary Filmon "Some people are more comfortable with old problems than with new solutions."

Economic instruments cross sectoral, disciplinary, departmental, and jurisdictional boundaries. This provides an opportunity to influence many sectors simultaneously. It likewise poses a challenge because existing decision-making structures tend to compartmentalize turf rather than encourage collaboration.

A central fact of contemporary governance is that least-cost solutions are likely to be designed by a coalition of those interests most affected. Policy design is rapidly being removed from the monopolized arena of governmental officials. Democracy advances.

In recognition of this need to bridge sectors, in 1991, the National Round Table on the Environment and the Economy established the Economic Instruments Collaborative bringing together governmental officials, business and environmental non-governmental organizations. This group made a number of recommendations regarding the use of economic instruments to control emissions of SO_2, CO_2, and ground level ozone. Implementation is being debated and some pilots projects are under consideration. Major change requires both patience and persistence.

Economic instruments provide many of the tools necessary for Canada to make the adjustment to a sustainable and prosperous future. The application of market-based, economic instruments to specific problems and opportunities will be the most important "environmental" issue of the 1990s. There may still be exclusively environmental problems, but there are only sustainable development solutions.

Mike Kelly is Executive Director, at the Clean Air Strategy for Alberta.

Market-based economic policy instruments could be used as effective incentives for sustainable economic development in Canada. In its advice to the Prime Minister, the NRTEE recommended that command and control instruments be considered only after economic incentives and disincentives (full-cost pricing, tradeable emission permits, pollution charges, redirected subsidies) have been evaluated and deemed unable to reach their goals. Other countries using market-based instruments report savings of 20%-40% compared to the cost of standard regulatory procedures.

Canada's Economic Instruments Collaborative is a multi-stakeholder partnership of major industrial producers and users of energy, and environmental organizations, as well as provincial and federal government representatives. The collaborative has worked together to select and design effective market-based approaches to air emissions that cause green-house gases, acid deposition or ground-level smog.

The federal and provincial governments increasingly have become more interested in the application of economic instruments. Formal working groups to explore their feasibility have been struck, and it is hoped that an SO_2 emissions trading pilot project will be established soon in a specific region.

The collaborative has produced a final report which is being published this fall. For copies of the EIC report, contact the National Round Table.

Saving Energy: Prosperity at No Cost

Edwin Smith

Carleton University in Ottawa has launched an impressive $20 million program to conserve energy across its campus. Resultant savings in energy costs are expected to recoup initial investments in equipment within a few years. Low interest rates combined with high energy costs have created a wonderful chance for this program to succeed.

Faced with more and more demands on already overwhelmed budgets, Canadian universities are being forced to take a closer look at where their money is being spent. In an effort to combat high operating costs some of these institutions are trying to make their campuses more energy efficient. Reduced energy consumption not only helps preserve the environment, it makes economic sense as well.

In 1992, Carleton University changed the lights on its campus, 60,000 common fluorescent tubes to be exact. The newly installed electronic units produce 20% more light than conventional fluorescent tubes they replace but on average use 40% less electricity. Reduced energy consumption is only the beginning of the benefits the university realized through this initiative.

The total amount borrowed for this project was $1.6 million. Payments on the loan are $18,000 per month while the energy savings are $23,000. In essence, this means that the university enjoys a monthly windfall on this investment in energy efficiency. The success of the energy program is largely due to the integrity of Bryan Beazer, Director, Department of Physical Plant. As Beazer says: "This program not only paid for itself, but it allowed the university to put in new equipment that it would have had to replace anyway."

Based on the tremendous success of the lighting project, senior management at the university approved several subsequent projects. Carleton's Energy Savings Program, worth $20 million, will save the university $2 million annually. The savings in energy costs will allow the university to pay for its investment over the next 10 years.

Under this program the university will install a new co-generation facility on their campus at an approximate cost of $8.5 million. Co-generation uses natural gas to produce electrical power and captures waste heat. Expected savings are $800,000 annually.

Carleton University is also making use of geothermal sources of energy. Using a series of wells and a network of piping, summer heat trapped in a building is picked up and stored 100 meters below the earth's surface. This summer-warmed water, which remains at approximately 10 degrees celsius beneath the campus, is then pumped into various buildings during the winter. This results in significant savings on heating during the winter and air-conditioning during the summer.

There are opportunities for all Canadians to participate in similar projects that save energy. Beazer provides the example of a university employee who wanted to apply some of the energy saving principles he witnessed to his own household. By converting his heating system to natural gas he was able to see energy savings of $75 per month, repayment on the initial loan was $50 per month.

Jobs are created to meet demand for energy-efficient products, consumers save on their energy bills each month, and the amount of pollution emitted into the atmosphere is reduced. Carleton University has proven, through these projects, that both the economy and the environment can win. Carleton's program serves as a model for other institutions.

It is hoped that Carleton's experience can be shared on other campuses. With total energy costs of about $250 million for all universities, similar savings could result in annual savings of $75 million. In fact, this figure could be low, since the results of a recent survey of some 50 universities would indicate that Carleton is already one of the leaders in energy management. In order to communicate these findings, NRTEE is working on a publication which will document Carleton's experiences, plus a couple of other campuses, and in effect provide an invaluable GREEN GUIDE for universities.

Edwin Smith is a Communications Officer at the NRTEE.

The Environmental Enigma

Jean-Denis Barry

The environmental issue is most often seen as a priority issue which benefits from great public and industry awareness and support. But what are the actual levels of awareness, the barriers and factors that drive regulatory compliance, voluntary actions and the development of environmental products and technologies?

The Canadian Chamber of Commerce looked at these questions through a series of focus groups across the country involving some 150 business owners and managers as part of its Focus 2000 program. A survey questionnaire on environmental management practices was also circulated to approximately 700 small, medium and large businesses.

Our survey indicated that most small and medium enterprises (SMEs) believe environmental management is driven by regulation; voluntary action and environmental products and technologies are driven by demand and peer pressure. The participants did not oppose regulation as such; their concerns dealt with the regulatory environment.

To ensure significant progress, environmental technologies and products must be made more accessible and affordable. Voluntary action, and much of compliance, are now generally limited to low-cost/no-cost measures, which is insufficient to achieve significant results on a national scale. Likewise, respondents stressed the need for access to a complete, user-friendly and well publicized source of information on environmental management related measures, technologies and business opportunities.

The survey also suggested several problems which must be addressed if a large proportion of environmental SME suppliers are to survive, let alone prosper. One of the most serious impediments is the lack of demand for environmental products and technologies. Other problems include misunderstanding about reasons for using environmental products, under-financing for product and market development, delays in regulation enactment/enforcement, unexpected changes in government policy and direction, political boundaries that often do not correspond to "economic" areas, and inconsistency in the interpretation of regulations.

Based on the challenges indicated in this research, a tentative list of recommendations is being developed by Focus 2000 for discussion among local business communities and subsequent implementation as part of a national action program. The objective of such a program is to facilitate the effective practice of environmental management in Canadian business and the development of SME suppliers of environmental products and technologies. To this end the Canadian Chamber of Commerce is actively encouraging the formation of a strategic alliance between major business associations in Canada.

If environmental management and the supply of environmental products are regulation and demand driven, governments must ensure that regulations are fair (and fairly enforced), effective and well understood. Action in this area will sometimes be difficult, as much of the needed action may require fundamental changes in the way government policy and direction are set.

Building awareness among Canadians, including Canadian business owners and managers, will be accomplished through a serious advertising and publicity effort. The national ParticipACTION program was used as an example. Other avenues for action include hands-on assistance to SMEs for environmental management, and assistance to SMEs in various forms including fiscal incentives for first-on-the-market products, a national SME network, and management training.

The dominant message which emerged from these studies was that without a renewed and effective commitment to efficient action by their governments a major component of Canadian business is likely to shift much of its energies from environmental management practices, and even more so from environmental product development, toward more survival oriented business activities.

A very concrete contribution by business and the main business associations will be required to help SMEs comply with regulations, develop voluntary actions and, from a supply side, develop their expertise and competitiveness with regard to environmental products and technologies.

As part of the answer, the Canadian Chamber of Commerce and the Canadian Standards Association (CSA) are currently developing a front-line action program to provide both incentive and how-to information to

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International Trade and Sustainable Development: Dangers and Opportunities

Pierre Marc Johnson and André Beaulieu

The greening of international trade is a pathway marked by both opportunities and dangers. Pierre Marc Johnson and André Beaulieu address several concerns of Canada's political and business leaders.

Corporations and businesses exist and trade in a global environment that forms the unaccounted-for base of an integrated world economy. International co-operation for sustainable development is essential and its results will force companies to change, maybe as much as national laws and policies.

A crucial area of international debate is international trade and its rules, rules by which a great many Canadian businesses survive or die.

A good example of the trade and environment interaction is how a 1991 GATT decision incited the wrath of environmentalists and sparked a continuing debate by ruling that a country could not discriminate against the tuna exports of a trading partner, on the basis of dolphin-killing fishing methods, for the purpose of protecting the environment beyond its own borders.

Other trade disputes are already under way or are about to begin in fields as diverse as beer, timber, agricultural products, trade in waste, recycling and electricity.

Green protectionism

As in the tuna example, the obvious risk of unilateral trade sanctions is that the environmental cause will be kidnapped and twisted by protectionist lobbies whose sole objective is the protection of obsolete and often highly polluting industries.

Moreover, the countries that find themselves the targets of unilateral action are often developing countries, such as India, Kenya and Brazil, who are unlikely to accept to grow poorer at the margin of the world economy, victims of what they call "environmental colonialism", and then be convinced to comply with international environmental agreements.

Only a few privileged countries, with a large, rich market, can use the weapon of countervailing duties and boycotts to impose their particular vision of environmental sustainability on others, including on countries as large as Canada.

Green protectionism could also undermine the international trading system and deprive countries of growth and wealth they could use for the benefit of the environment.

Trade liberalization

Trade liberalization generally promotes better environmental management and sustainability because first, it spreads environmental technologies faster; second, it creates new opportunities for business, thus creating a wealth that can be harnessed for the benefit of the environment; finally, a competitive market coupled with sound environmental policies and regulations, favours more efficient, cleaner companies.

One example of the opportunities from liberalized trade is the proposed North American Free Trade Agreement (NAFTA) that would create opportunities for business, in particular in the environmental field.

For example, Canadian firms would have unprecedented access to giant Mexican enterprises such as PEMEX (petroleum) and CPE (electricity), accounting between themselves for $10 billion worth of Mexican government purchases.

In the area of environmental engineering the American market is estimated to be worth at least $3 billion to $4 billion a year only in decontamination of cleanup projects.

In the view of some, accelerated economic development promoted by free trade is exactly what threatens the environment.

In fact, free trade and the economic growth it brings are necessary for creating wealth, which in turn is essential to rectify past destruction of the environment. Simply stated, growth is essential for proper environmental restoration and remediation. Growth is also necessary for the development and acquisition of more efficient and cleaner technologies and, most importantly, to meet the minimum needs of an exploding world population plagued by poverty and marginalization.

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Promoting Sustainability in a Slow-Growth Economy

Barry Sadler

Environment and Economy. The conjunction indicates the sea-change in thinking that has taken place during the past decade. Before, the emphasis was on environment versus the economy. The discussions about "limits to growth" focused on whether, rather than how, economic activity should continue.

Now it is widely accepted that the environment must be treated as a productive asset by business and industry; and innovative corporations are moving to implement the principles of sustainable development. An expanding case-book of Canadian and international examples show (rather than just say) that environmental performance can be cost-effective and confer competitive advantage. Such actions, including those reported here, represent an encouraging start to the transition to sustainability. It must be noted, however, that many enterprises have not "signed on" to the sustainability agenda, let alone moved to the second phase of putting ideas into action.

The agreements and agendas concluded at the UN Earth Summit in Rio last year call for an across-the-board commitment to sustainable development by the private sector. The Business Council on Sustainable Development coined the term "eco-efficiency" to describe that link. It emphasized the importance of doing more with less in the production process; e.g. reducing both energy and raw material inputs and pollution and waste outputs. A combination of public concerns, consumer preferences, regulatory changes and corporate environmentalism are expected to drive these trends.

Specifically, the Rio conventions on biodiversity and climate change should act as far reaching catalysts of change. The Montreal Protocol on ozone depleting substances generated a new area of economic activity in substitutes and services. If this is any guide, the following sequence of trends will occur:

- obligations under the biodiversity and climate change conventions are expressed in policy and institutional changes;
- technological innovations are made by the industry sectors affected to meet new performance standards; and
- business opportunities are created, nationally and internationally, by emerging product and service requirements.

Ideally, these trends should be promoted and reinforced as part of a national sustainable development strategy. Canada's approach is being launched through The Projet de Société, (see page 39), a collaborative multi-stakeholder partnership formed by government, business and voluntary organisations. A key activity involves elaborating and demonstrating the economic policies and business initiatives that are necessary for Canada to achieve sustainable development. Some hard realities must be taken into account in framing recommendations.

From now on, environment-economy integration is likely to become more difficult. Many of the "obvious" technological and managerial innovations for increasing resource efficiencies and reducing environmental impacts/waste outputs are being exploited already by market leaders. The "next-generation" ecologies of scale appear to be more costly because the economic climate is taking its toll on forward-looking investments.

Canada's deficit and debt load constrain political ability to accelerate the switch the from "business as usual" to the "new economy" of sustainable development. What makes the current recession even more depressing is the apparent reversion to traditional approaches, including reliance on orthodox levers for "jump starting" the economy. Sustainability becomes, once again, a peripheral concern, a luxury of affluence.

On the contrary, sustainability should be seen as a key to prosperity and competitiveness. It must become an "organising focus" for public and private sector investment, including job creation, improvements to infrastructure and related initiatives. Moreover, the time for positioning Canada on a sustainable course is precisely during a slow growth period. This is when investment and innovation can realise a "double dip" of economic and environmental benefits.

Both theoretical and empirical propositions can be advanced in support of this argument.

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- A key principle for sustainability is "non-liquidation" of natural capital, i.e. resource stocks plus the ecological processes that maintain their productivity. Ecological economists now consider natural and man-made capital (i.e. factories, infrastructure, etc.) as complements rather than substitutes. The point here is that aggregate depletions of natural capital should not only be compensated by some form of replacement investment (with which other schools of economic thought agree), but these must be "in-kind" (e.g. so there is no net loss of habitat within a river or estuary system). Natural capital replacement or enhancement is an investment in productive assets and an insurance against future ecological risks and irreversibility.

- A portfolio of conservation-based activities can also generate economic opportunities and employment benefits (though the multiplier likely is less than a conventional program of road building and public works). The portfolio might encompass, for example:

i) remediation of contaminated industrial sites, abandoned mines and tailings;

ii reforestation and silviculture programmes for over-harvested woodlands; and

iii) restoration and rehabilitation of wetland systems.

In addition, such programs can be targeted at launching or improving the capability and international competitiveness of sectors of the Canadian environmental industry (i.e. encompassing knowledge-based services and systems as well as products and technologies).

A slow-growth economy offers a window of business opportunity for linking together the sustainability and prosperity and competitiveness agendas. Investment in a conservation-based portfolio of projects and activities represents a practical, value-added strategy, one that opens the door to further market and trade opportunities. This approach remains to be worked out in detail. But the key principles are entrepreneurial partnership between government, business and voluntary sectors, with regions of the country being able to shape initiatives to their particular environmental and economic priorities.

Barry Sadler,a long-time consultant on sustainable development, is Project Director, Projet de Société. (The opinions expressed in this article are personal and do not necessarily reflect those of the Projet or its members.)

SUSTAINABLE DEVELOPMENT

"For the business enterprise, sustainable development means adopting business strategies and activities that meet the needs of the enterprise and its stakeholders today while protecting, sustaining and enhancing the human and natural resources that will be needed in the future."

The International Institute for Sustainable Development, in its publication *Business Strategy for Sustainable Development: Leadership and Accountability in the 90's.*

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Canadian SMEs in all sectors of economic activity. This delivery program will be based on the national Environmental Management System (EMS) related guidelines that CSA is developing and adapting to the needs of SMEs.

Jean-Denis Barry is Coordinator, FOCUS 2000 Division, the Canadian Chamber of Commerce. The Canadian Chamber of Commerce represents 170,000 small, medium and large businesses from across Canada. With membership by 500 local chapters, the Chamber is represented in most communities providing a local focus for business.

Trade cont. from pg.32

Moreover, trade liberalization creates a more competitive economy that can also promote environmental values. Environmental protection and business competitiveness often go hand in hand. Environmentalists, like those who wish to maximize productivity, want industry to reduce costs and inputs by using as few raw materials as possible, as efficiently as possible, particularly in the energy, agriculture and natural resources sectors.

A growing minority of environmentalists are reconciling themselves with trade liberalization on the condition that changes be made to international trading rules so that they may help national governments protect the environment more effectively.

They also rightly point out that, in order for the discipline imposed by international competition to make productivity synonymous with environmental efficiency, there must be a national regulatory and administrative framework that promotes sustainability, internalization of environmental costs and integration of environmental issues into decision making.

Trade is not the principal cause of the ecological crisis, nor is it the only solution.

We should not let the environmental cause adopt the dangerous vehicle of unilateral action and trade sanctions of the more powerful countries. If this occurs, it is the economic development of the poorest countries, the prosperity of richer countries and global environmental integrity that will be jeopardized by green trade wars.

Pierre Marc Johnson, Director of Research, Centre of Medicine, Ethics and Law, McGill University, is Vice-Chair of the National Round Table on the Environment and the Economy. He chairs its Task Force on Trade and Sustainability. André Beaulieu, also at the Centre for Medicine, Ethics and Law, is a resource person to the NRTEE's Task Force on Trade and Sustainability.

Commentary by Doug Miller

Canadians Ahead Again

It's not the average Canadian that needs to be convinced of the significant rewards of aggressively pursuing sustainable economics. They already see sustainability, as a necessary, practical and key to our economic prosperity.

Evidence of this intuitive leadership by Canadians, ahead of public opinion in other countries and well ahead of their own elected representatives, has been uncovered in progressive surveys by the Environmental Monitor. These national surveys of 1,500 Canadians, conducted quarterly by Environics Research, reveal nothing short of a new economic paradigm in the minds of Canadians. Consider the evidence:

- Even with over a million people unemployed, Canadians refuse to believe that jobs suffer from environmental protection.
- An overwhelming majority of Canadians see environmental protection as a driver, not an anchor, of economic recovery and growth.
- This "golden lining" or opportunistic view of sustainability is reflected in the virtually unanimous view that "green" exports could play an important role in Canada's overall exports in the next 10 years.
- The conventional wisdom (or at least, the industrial view) that environmental standards in Canada will make us less competitive in the world, is not accepted by a majority of Canadians.
- Canadians are ready to confront false economies, where real costs are not reflected in the price for goods and services. They know these environmental costs must eventually be paid and a majority would prefer them paid up front through higher consumer prices, even in the midst of the recession.
- Canadians do not expect sustainability to come easily, or without significant personal sacrifice. A majority expect it will mean major changes in the way we live, including consuming less. As long as sacrifices are equitably distributed, they demonstrate a readiness to do their part.

These and other findings make it clear that Canadians are applying what they have learned from their environmental concerns to what they are now learning about the new economics. The result is a fundamentally new concept of economics in which Canadians see many opportunities and few risks related to aggressively pursuing sustainability. They are now looking for the leadership to move forward.

The fact that none of the major political parties has picked up on this opportunity in the current federal election campaign is surprising. While it is not an accountability issue like health care and the deficit, sustainability is an essential building block of a credible strategy for ensuring future prosperity. Without it, party economic policies will not resonate with the public's emerging understanding of new economics.

More importantly, pursuing a sustainable economy would rally and unify Canadians at a time of great stress in our national institutions. Environmental protection has surpassed peacekeeping as what Canadians most want to be known for in the world. They are ready to respond to effective leadership and do their part. With so many bitter pills for Canadians to swallow in other areas, here is an unprecedented opportunity for feeling good about accomplishing something really important together as a country.

With Canadian political strategists adopting the Clinton campaign's internal slogan, "It's the economy, stupid," Canadians seem to be telling them, "It's the new economy, stupid".

Doug Miller is President of Synergistics Consulting Ltd. in Toronto and, together with Environics Research Group Ltd., conducts the Environmental Monitor survey of public attitudes and behaviour.

MANAGING CHANGE

"It is clear that good environmental management is not simply a matter of a government affairs department keeping abreast of legislation. It requires a response from every part of a company's operations and from all its managers and employees. This cannot be achieved in the traditional reactive manner, in which management interventions usually focus on fixing symptoms rather than on underlying causes. There are now simply too many forces and information signals from outside the company, and a reactive corporation is unlikely to remain competitive for long.

The imperatives of sustainable development imply that a business organization that intends to survive and prosper in the decades ahead must therefore become a 'learning organization', built to adapt to rapid changes and to generate creative solutions more effectively than its competitors."

Stephan Schmidheiny, *Changing Course*, (1992).

Business Organizations Leading the Way

Edwin Smith

Business has an important role in the future health of the planet. As the business sector gradually comes to terms with the environment, a growing number of national and international business leaders are recognizing that sustainable development makes economic sense.

This rising level of awareness is reflected in the emergence of business associations that devote a significant portion of their time to addressing matters of sustainable development.

Created in 1990, the Business Council for Sustainable Development (BCSD) is an international association based in Geneva that seeks to address the environmental concerns of international business. Its membership is composed of chief executive officers from major corporations around the world who act as catalysts for the move toward sustainable development.

The BCSD was asked to deliver a business perspective on sustainable development to the United Nations Conference on Environment and Development (UNCED) in 1992. Building on the success of its UNCED report, *Changing Course: A Global Business Perspective on Development and the Environment*, the BCSD began phase two of its work in December 1992. This work involves the development of environmental policies for international business while forging partnerships between the public and private sectors.

Currently, the BCSD's task forces are considering three policy issues: internalizing environmental costs to promote eco-efficiency, providing improved information for financial markets, and accelerating sustainable development in Central and Eastern Europe. In particular, the BCSD is focusing on the ecological problems faced by developing regions and countries and how solutions might be found through eco-efficiency and technology cooperation.

In Canada, the Business Council on National Issues (BCNI), created in 1976, acts as the voice of Canadian business on issues of national public policy. The BCNI was founded on the principle that "Canadian business leaders have a responsibility to society as a whole not merely their traditional constituents." Composed of chief executive officers from 150 leading Canadian businesses, the Council carries out work in four areas: the national economy and competitiveness; foreign affairs and the global economy; the environment and sustainable development; and political governance.

The Business Council set up a task force on sustainable development in 1989, with the goal of providing strategic business leadership on the na-

WICE Speaks for Business

Dan Donovan

The World Industry Council for the Environment (WICE) aims to be the voice of world business on matters relating to business and sustainable development.

Currently CEOs from 90 member companies participate on WICE's board. Membership of WICE, which was created in February 1993, includes companies from the oil and gas sector, insurance, banking, manufacturing, chemical, transportation, auto makers, mineral, forestry and others.

WICE's areas of interest are divided among three task forces: Agenda 21 policy, trade, and life cycle analysis and reporting. WICE members are also interested in the issue of technology transfer.

The first task force is analysing how Agenda 21 will be moved forward in the post-Rio era, including questions such as: Is government consulting with business before drafting domestic legislation related to Agenda 21 and other Rio documents? How will Agenda 21 policies affect the business community from a financial and investment perspective? What type of legislation are governments preparing with regard to the Rio Climate Change and Biodiversity Conventions and is this compatible with the views of the business community?

In October, WICE members are issuing the Paris Declaration, which will clearly outline business principles on sustainable development. The Declaration will set the tone for a post-Rio business agenda that WICE intends to pursue.

WICE's second task force focuses on trade, environment and global business issues. Task force members have developed a series of positions, recommendations and principles to guide the trade issue, including Principles for Trade and Sustainable Development, which will be part of the Paris Declaration.

tional and international agenda for sustainable development.

The International Institute for Sustainable Development (IISD), in Winnipeg, Manitoba, promotes sustainable development in decision-making at all levels of government, business and society. The IISD's work includes a program on business and government.

Recognizing the need for new environmental products, technologies and services, the IISD recently launched its Earth Enterprise project. This project will establish practical mechanisms for entrepreneurs, innovators and investors to create wealth by meeting sustainable development needs.

The International Chamber of Commerce has also been active in promoting sustainable development for business. In 1992 it established a Business Charter for Sustainable Development (see page 20), and published *From Ideas to Action: Business and Sustainable Development*, in an effort to encourage business to take concrete action in moving toward sustainable development. Earlier this year the ICC created the World Industry Council on the Environment (WICE) located in Paris, France. WICE has been instrumental in introducing the concept of sustainable development to international business as it relates to their own activities and to international trading arrangements. Dan Donovan, Manager of Environmental Policy for WICE, details the emergence and work of this organization in the following article.

Edwin Smith is a Communications Officer at the NRTEE.

Also, the task force is examining the merits of recommending that the new Multilateral Trading Organization (MTO) have a trade and environmental council. Finally, the WICE task force agreed with many green groups and consumer based groups that the GATT dispute settlement mechanism (DSM) process needed change. WICE believes the system should be made more open and transparent. It has therefore put a proposal forward which would enable the GATT to achieve this without destabilising the dispute settlement mechanism that has worked well for 45 years. WICE will invite international trade lawyers from around the world and other interested parties to attend a conference in Paris in February, 1994, to discuss this proposal.

The Task Force on Life Cycle Analysis and Corporate Environmental Reporting was established in February, 1993 but is not due to report on the progress of its work until the spring of 1994.

WICE members plan to formulate policy from a business point of view on a wide variety of sustainable development issues and present those policies to governments and agencies which have an interest in their perspective. WICE also will put some considerable effort into changing the image people have when it comes to business and the environment. In a poll released in Europe in January 1993, respondents said that when it came to questions of the environment, 65% tended to believe what environmental groups said; 35% believed information from governments and only 3% believed what industry has to say on these critical issues.

WICE members realize much work has to be done to improve their record on these issues and that only substantive change will make this occur. At the same time WICE members would like to inform the community at large about the substantial progress the business community is making and has made, in the past few years, at achieving some of the goals first set out in the Brundtland Report, *Our Common Future.*

Dan Donovan is the Manager of Environmental Policy for the World Industry Council for the Environment in Paris, France.

Banking on the Environment

Canada Trust's slogan is 'thinking like the customer'. They really mean this having just implemented two new programs that focus on the environment, a concern of many of their customers. For the first program, EnviroLoan, Canada Trust is working with the Ontario Green Initiatives Program in seven communities across Ontario. The program allows customers to get loans of up to $7,500 at the prime rate for changes in their home or workplace that reduce energy consumption. There is even a special payment matching scheme that allows customers to make their loan payments with savings on monthly utility bills.

Canada Trust has also set up a charitable, not-for-profit organization called Friends of the Environment Foundation (FEF) whose purpose is to promote environmental initiatives in Canadian communities. FEF will match customer donations to 'green accounts' up to a maximum of $2 million per year. Customers are given the option of donating a lump sum or having monthly donations deducted from their account. They will also donate an additional $5 every time an account is greened. The money is then used to fund local projects that are screened by local advisory boards. Eligible projects include: planting trees or flora; cleaning streams and parks; natural pesticide research, and sponsoring environmental education programs.

Ralph Marranca, Manager of Corporate Communications, says: "Canada Trust wanted to add value and contribute to the environment in a meaningful way. We knew customers and staff were concerned and wanted to do something at the local level. The foundation fits well with local branches and give people a way to help."

Canada Trust has established 115 Friends of the Environment Foundation Chapters across Canada. The foundation has raised more than $2.8 million, which all goes toward the projects. Canada Trust assumes the costs of managing and administrating the program.

C.D.

NRTEE WORK IN PROGRESS

Economic Instruments

The final report of the Economic Instruments Collaborative will be printed early this fall. The report makes specific recommendations regarding the application of economic instruments to CO_2, SO_2, NO_x and VOCs. Copies of the report will be available on request from the NRTEE. Discussion is underway regarding a workshop to promote the report's conclusions and recommendations, especially among key government departments and agencies.

Consensus Decision-Making

The NRTEE and provincial round tables have produced a guidebook on consensus decision-making. *Building Consensus for a Sustainable Future: Guiding Principles* will be available shortly. Next, the Task Force on Consensus Decision-Making will address training and implementation of the principles. A Task Force meeting is being held in Toronto on October 20, to coincide with the Society of Professionals in Dispute Resolution (SPIDR) annual conference.

GATT, Biodiversity and Rural Renewal

The Task Force has circulated a discussion paper titled *Canada's Agricultural and Trade Policies: Implications for Rural Renewal and Biodiversity* to over 500 organizations, government agencies, and groups with an interest or stake in rural renewal. The Task Force is convening workshops in Saskatoon in November, and in Halifax in December, to discuss feedback from the discussion paper.

Forest Round Table

Following its successful forestry principles, the Forest Round Table is drafting a consensus document on harvesting methods in Canada. A final meeting of the Forest Round Table is being held in Ottawa, October 14-15 to discuss the lessons learned from this round table process.

Pulp & Paper Round Table

The Pulp and Paper Round Table met for the third time in Vancouver at the end of August. Work is continuing toward a set of principles covering the sustainable production of paper and paper products. The next meeting has been scheduled for November 15-17 in Thunder Bay.

Sustainability Reporting

The Task Force is currently redrafting the Report titled "Towards Reporting Progress on Sustainable Development in Canada" which is scheduled to be discussed by the NRTEE Plenary, October 18-19 in Hull, Quebec.

The Task Force has organized a colloquium on Sustainable Development Reporting with the Westminster Institute, to be held November 25-26 at the University of Western Ontario. The Colloquium's purpose is to bring together leading thinkers on sustainable development to identify, explore and promote shared understanding of key conceptual issues in reporting on sustainable development.

Trade and Sustainability

For the last eight months, the Task Force on Trade and Sustainability has been involved in the negotiations of the environmental side agreement to the North American Free Trade Agreement. The completed side agreement closely resembles the Task Force's advice to the Prime Minister, tabled on May 19. The Task Force is currently exploring how its work and advice might encourage the consideration of the environment in two economic and trading institutions: the Asian Pacific Economic Cooperation forum (APEC) and the Multilateral Trade Organization (MTO) proposed in the latest draft of the GATT's Uruguay Round text.

The Task Force is also preparing a final report from its July 9 workshop on Sustainability and Trade which was undertaken in partnership with the Mining Association of Canada, the Sierra Club and the Rawson Academy.

Education

The first meeting of the interim advisory group of the Fostering Responsible Citizenship Program was held in Toronto, September 23. Planning has begun for a fall media workshop in partnership with Ontario Hydro and the Ontario Round Table. Arrangements are being made for a workshop in the spring of 1994 to involve Post-secondary Sustainable Development Educators, building on the success of the Sustainable Development Institutes Workshop.

PROJET DE SOCIÉTÉ - *Planning for a Sustainable Future*

The Projet is a multi-stakeholder, collaborative partnership of over 50 sectors of Canadian society. It is the principal process by which Canada is preparing a national sustainable development strategy (NSDS) to follow up on the commitments made at the UN Earth Summit at Rio. The NRTEE, one of five sponsoring institutions of the Projet de Société, provides the secretariat, the chair of the National Assembly, and the chair of the Working Group of the Projet.

Following the second National Stakeholders' Assembly in June, the work priorities of the Projet are: i) to complete its assessment of Canadian follow-up to Rio; ii) to elaborate the framework and process for sustainability planning and action; and iii) to undertake a number of demonstration projects that exemplify ways and means of implementation.

A report on these activities will be presented as a national sustainable development strategy, together with recommendations on the future of

the Projet de Société, to the third National Stakeholders' Assembly, provisionally scheduled for December 16 - 17, in Ottawa.

Sustainable Communities

There are now several hundred local round tables on the environment and the economy, or similar regionally-based initiatives to promote healthy, sustainable communities. The NRTEE is working, in partnership with its B.C. and Ontario counterparts, to develop a consolidated and updated manual for starting up a round table at the local level, which will include descriptions of existing successful local initiatives.

Publications

A Manager's Handbook and *Toward Sustainable Communities*, both currently out of stock due to high demand, will be reprinted this fall. *Sustainable Development: Getting There From Here* (A Guide for Unions and Labour) is now available in English and French.

A full list of NRTEE publications is on page 41.

Internship Program Provides Opportunity

For many university and college students across Canada, the thought of looking for a summer job fills them with apprehension. Despite high qualifications, good jobs are often hard to come by — unless you win a summer internship at the National Round Table.

This year the NRTEE set up the Roy Aitken Sustainable Development Internship, in conjunction with INCO, to provide students with valuable work experience before their last year of university or college. The first summer was a great success.

The internship program allowed two students to work for the NRTEE for the summer: Jocelyn Amyotte of Cambrian College and Sarah Murdoch of the University of Ottawa. Amyotte, a student in the chemical technologist program, spent her summer helping Sudbury businesses reduce their waste. Murdoch, a native of Vancouver, spent her summer researching issues on trade and sustainability at the National Round Table Secretariat in Ottawa.

The program honours Roy Aitken, former executive vice-president of INCO, who passed away last year. Aitken, a strong advocate for sustainable development, was also one of the NRTEE's founding members. Aitken was one of the most effective advocates for the view that the environment and the economy must be combined in planning by decision makers. He was also of the view that young people must be equipped with the necessary skills to make the hard decisions that will be required in the future.

Murdoch says that the chance to work at the NRTEE was not only a rare opportunity but is also very relevant to her studies in political science. "Because the internship is specifically for students entering their final year, it gives them concrete work experience that provides an edge in the competitive job market," she says.

SUCCESS STORY: Picture Perfect

As the environment assumes increasing importance in today's society, many businesses want to jump on the bandwagon. Few, however, are willing to do so at great cost when the investment returns may take years to materialize. This is not the case with Black Photo Corporation. In 1991 Black's introduced a closed-loop recycling system for its process water, decreasing its annual water use by 97%. This alone would be cause for celebration but Black's has gone even further by virtually eliminating the discharge of photo finishing chemicals into sewers.

Black's new operation, called System Crystal, did not come cheaply. Three years in development and $1 million later, System Crystal regenerates and reuses more that 90% of photo processing chemicals. Black's doesn't expect to recoup its investment any time in the near future. Despite this, they are not passing the extra costs on to the customer -- the standard business practice. Alan Henkelman, Director of Photo Finishing Operations says: "We are extremely pleased with the results. So far, of the 170 minilabs in Canada, 140 are using System Crystal. We've not only reduced the chemicals that go down the drain but we have decreased our water intake at the same time." Black's is making an investment in a sustainable future because they feel it is the right thing to do.

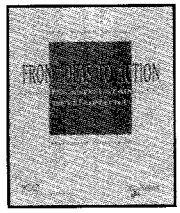
Many would argue that a national corporation like Black's can easily afford such a commitment to the environment while smaller operations are just trying to get by. Yet small businesses are also making a difference. Lynx Photo Inc., of Montreal, is one of those small businesses. Despite a small budget, Lynx has reduced its sewage discharge by 300 litres a month, and has become the first photo processing outlet in Quebec to adopt a chemical recycling system. According to Office Manager Kim McDougall, Lynx became environmentally friendly because of a belief that it everyone, including the store's customers would soon share the same view. "We decided it would be a good marketing strategy if we got into it first. Plus we realized that just because Quebec doesn't have the laws now doesn't mean it won't have them in the future. We see environmental management as something we have to do."

C.D.

SUSTAINABLE DEVELOPMENT: A MANAGER'S HANDBOOK

By David W. Conklin, Richard C. Hodgson, and Eileen D. Watson
Ottawa: National Round Table on the Environment and the Economy, 1991

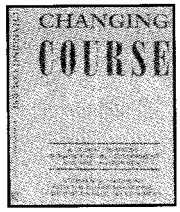
A Manager's Handbook focuses on the role of business managers in devising and implementing sustainable development strategies for their respective companies or organizations. Three fundamental questions are directed at the reader/manager: Why should you be concerned about sustainable development? How well are you doing? and How can you do better? In particular, this book includes a "do-it-yourself" environmental audit, numerous environmental success stories, and an overview of environmental regulations including Canada's Green Plan. ***A Manager's Handbook*** was originally released in 1991 as part of the National Round Table's Sustainable Development Book Series. Due to demand for the book, it is currently out of stock. However, a reprint is expected shortly.



FROM IDEAS TO ACTION: BUSINESS AND SUSTAINABLE DEVELOPMENT

By Jan-Olag Willums and Ulrish Golüke
Oslo: International Bureau of the ICC, May 1992

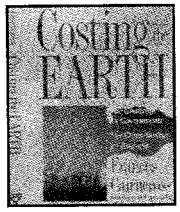
Rather than providing a visionary sustainable development strategy for business, ***From Ideas to Action*** chooses to instruct by example. This book written for the International Chamber of Commerce (ICC) features numerous environmental profiles of corporations who have undertaken environmental initiatives and programs. Included among the corporate profiles are Xerox, Noranda, AT&T, Kodak and many more. In addition, Jan-Olag Willums and Ulrish Golüke highlight the ICC's Business Charter for Sustainable Development, the Rio Declaration on Environment and Development and Agenda 21.



CHANGING COURSE: A GLOBAL BUSINESS PERSPECTIVE ON DEVELOPMENT AND THE ENVIRONMENT

By Stephan Schmidheiny with the Business Council for Sustainable Development, Boston: The MIT Press, 1992.

As the introduction to ***Changing Course*** points out, this is a book of steps, the steps on the pathway to a sustainable development strategy for business. This book, written by the Business Council for Sustainable Development under the pen of Stephan Schmidheiny, bridges the gap between the objectives of business and the vision of a sustainable future. Several key issues in this business-environment relationship are addressed, including pricing instruments and markets, energy use, financial markets, and trading arrangements. ***Changing Course*** also contains 38 case studies of companies that have successfully met the sustainable development challenge across a range of issues. According to Schmidheiny the presence of three factors, more than any others, will determine the success of a transition to a sustainable future for industry: innovation, cooperation (exhange of ideas) and leadership. This book provides business leaders with the vision and tools to meet their new responsibilities.



COSTING THE EARTH: THE CHALLENGE FOR GOVERNMENTS, THE OPPORTUNITIES FOR BUSINESS

By Frances Cairncross
Boston: Harvard Business School Press, 1992.

Frances Cairncross, environmental editor of the Economist, shows how clear-sighted economic policies can be used to help the environment, and how resourceful companies can turn the public's concern for a cleaner environment to their corporate advantage. Successful environmental policies, according to Cairncross, will be those that encourage the inventive power of industry. ***Costing the Earth*** also sets out a role for government in helping industry harness the power of the market and reduce environmental harm. Only government can create the incentives businesses need to be both green and economically viable. Working together industry and government can form a formidable alliance.

Sustainable Development Book Series

Sustainable Development: A Manager's Handbook*

☐ The National Waste Reduction Handbook

Decision Making Practices for Sustainable Development*

Preserving Our World*

On the Road to Brazil*

Toward Sustainable Communities*

☐ Trade, Environment & Competitiveness

☐ Green Guide - A User's Guide to Sustainable Development for Canadian Colleges

☐ Sustainable Development: Getting There from Here *(A Guidebook for Unions and Labour)*

☐ Covering the Environment: A Handbook for Environmental Journalism

Other NRTEE Publications & Products

☐ Focus 2000: A Small Business Guide to Environmental Management

☐ Waste Management for the Construction Industry

☐ NRTEE Multi-Media Diskette (MacIntosh Compatible)

☐ Interactive Computer Game/Quiz on Energy (MacIntosh Compatible)

☐ NRTEE Poster: Objectives for Sustainable Development

☐ ICC Business Charter Poster

You Can't Give It Away: Tax Aspects of Ecologically Sensitive Lands*

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☐ Sustainable Development and the Municipality

☐ Sustainable Development: Building Partnerships with Business

☐ Courage Music Video and Cassette: Sustainable Development and Youth

The North American Free Trade Agreement and the North American Commission on the Environment*

☐ Shaping Consensus: The North American Commission on the Environment and NAFTA

☐ Forest Round Table Progress Report and Video

☐ Building Consensus for a Sustainable Future: Guiding Principles

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☐ 2 The Financial Services Industry and Sustainable Development: Managing Change, Information and Risk

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☐ 17 Corporate Sustainable Development Reporting in Canada

☐ 18 Aperçu national sur la planification stratégique du développement durable dans les provinces et les territoires du Canada

☐ 19 Canada's Agricultural and Trade Policies: Implications for Rural Renewal and Biodiversity✣

☐ 20 Sustainable Subsidies: Assessing the Law of Unfair Trade and North American Disputes (available October '93)

* Currently out of stock

✣ Aussi disponible en français

✪ Also available in Spanish

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☐ Summer '91

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☐ Annual Review '92

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☐ Spring '93 - ENGOs

☐ Annual Review '93

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The National Round Table on the Environment and the Economy promotes the principles and practices of sustainable development in all sectors of Canadian society and in all regions of Canada.

Reporting directly to the Prime Minister, the National Round Table is an independent forum composed of influential individuals from government, business, science, environmental groups, academia, labour unions, and native peoples.

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