THE ENVIRONMENT INDUSTRY:

prospects for growth in the new millennium

The environment industry has a well kept secret–business and investment opportunities that are largely untapped. Why? Few people realize that environmental compliance is a way to contribute to the planet's well being, while turning a profit.

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The 1990s have brought social consciousness of environmental responsibility: Schools are now teaching our children about the three Rs (reduce, reuse, recycle); blue boxes are on our front lawns; senior executives now realize the importance of environmental responsibility; and sound environmental policies are being implemented.

But most people and corporations fear the costs of cleaning up the environment, and precious few have embraced it. The fact is that substantial amounts of money have been, and will continue to be, spent on solving environmental problems. In the new millennium, those who view environmental compliance as a business opportunity will be greatly rewarded.

Industry profile

The Canadian environment industry comprises a wide range of companies. Approximately two-thirds are service-based businesses and one-third manufacture a variety of products (see table 1).

In a 1996 report, the Ontario Centre for Environmental Technology Advancement (OCETA) estimated the Canadian environment industry's domestic revenues at $11 billion annually. Table 2 provides projections of the industry's annual domestic revenues by sub-sector.

Industry surveys estimate that there are 5000-7000 environmental companies in Canada that employ 70,000-80,000 workers. There are approximately 50,000-60,000 environmental public sector workers, primarily engaged in water and solid waste management services.

Companies in the environment industry range in size from one-person consulting firms, to large multinational corporations, but generally they employ fewer than 50 people. A handful of large companies have several hundred employees and maintain international operations. These large companies are found predominantly in the waste management business and environmental/engineering consulting fields. Medium-sized companies have developed regional niche markets, mainly in consulting.

Equipment manufacturers tend to be small- to medium-sized companies, with annual sales ranging from a few million dollars to tens of millions of dollars.

There is cooperation among large and small companies in the industry to develop new markets for their products and services. Large consulting firms, for example, will often partner with environmental specialists or technology manufacturers.

The Canadian Environment Industry Association (CEIA) is the national organization for Canada's 10 provincial environment industry associations and networks. CEIA promotes the interests of the environment industry–both federally and globally. It supports the development of Canadian companies that supply environmental technologies, products and services. CEIA members (currently about 15,000 firms nation-wide) participate in trade promotion, networking and information dissemination.

Table 1. Sub-sectors of the environment industry

Services	Products and Technologies
◆ environmental and engineering consulting	◆ water and wastewater treatment
◆ analytical and laboratory services	◆ air pollution control
◆ site remediation and restoration	◆ solid waste management
◆ waste management (solid, liquid and hazardous)	◆ site remediation
◆ resource recovery	◆ instrumentation and information systems (including monitoring)
◆ natural resource conservation	◆ resource recovery
◆ facilities management (e.g. operation of sewage treatment plants)	◆ pollution prevention
◆ environmental management	◆ energy conservation and alternative energy
	◆ analytical equipment

Barriers to growth

Recently, Industry Canada hired the Impact Group to conduct a survey on barriers to growth in the environment industry. The majority of the firms surveyed said they are concerned about their future ability to find work at home and abroad. Survey participants cited as barriers to growth:

◆ the lack of government enforcement of environmental regulations;
◆ foreign competitors;
◆ fly-by-night companies that underbid projects and mishandle environmental problems;
◆ the absence of standard tendering policies,
◆ high taxes; and
◆ competition from tax-assisted agencies.

The Impact Group survey also found that there is a strong tendency to blame domestic regulators for many of the industry's woes. Environmental companies believe that their business prospects improve with the imposition of stricter regulatory enforcement.

With deregulation of environmental policy in many jurisdictions, increased government supervision is unlikely. For example, the Ontario government reduced the Ministry of the Environment's budget by 18.2 per cent ($60.4 million) in 1995. In 1997, the ministry laid off 187 environmental inspectors, investigators, pesticide workers and other workers. In its business plan for 1995-96 to 1997-98, Environment Canada maintained funding for enforcement at current levels.

The Impact Group survey identified several other complaints about government policy, including:

◆ bureaucratic red tape and slow government processes;
◆ the lack of partnerships between the public and private sectors;
◆ competition with government-funded laboratory facilities and universities;
◆ excess staffing at municipal government levels;
◆ economic instability and low economic growth;
◆ the lack of standardized government tendering processes;
◆ inappropriate distribution of funding for international projects;
◆ the high cost of preparing proposals for government projects and acquiring permits; and
◆ high real estate, business and employee taxes.

However, the current trend toward government downsizing and the outsourcing of work may relieve some of the industry's anxieties. For example, water and wastewater treatment plants in Hamilton-Wentworth are now operated privately. Many are predicting that the pace of privatization of municipal services (e.g. wastewater treatment and solid waste management) will accelerate in the near future.

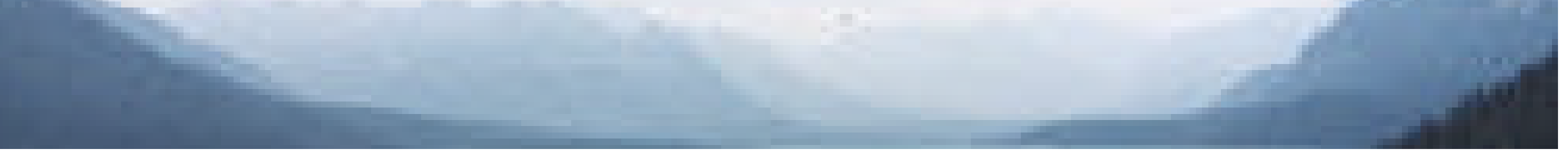
Table 2. Revenue projections for Canada's environment industry

Market Segment	*Revenues (1996 est.)
water/wastewater	$3.7 billion
solid waste management	$2.2 billion
air pollution control	$1 billion
environmental services	$1 billion
natural resource management	$700 million
pollution prevention	$700 million
hazardous waste management	$400 million
site remediation	$250 million

*Does not include export revenues

Reaching market saturation

The Impact Group survey results reinforce the belief held by many players in the environment industry that the market for their services is saturated. Foreign companies, especially United States-based firms, are



perceived as a threat, due to their financial resources, skills and experience. Canadian firms must continuously compete for domestic market share with foreign firms, many of which are well entrenched in certain segments of the Canadian market.

According to many industry observers, another reason for the market's saturation is the presence of underqualified companies, which has led to intense competition and a drop in prices to unprofitable levels. Typically small firms without a track record, unqualified companies are seen to be delivering shoddy work and giving the industry a bad name. Some in the industry feel that an accreditation policy for environmental companies would help weed out unqualified firms.

To help address this problem, the federal government implemented the Environmental Technology Verification (ETV) program, and the Ontario Ministry of the Environment introduced the New Environmental Technology Evaluation (NETE). The ETV program provides validation and independent verification of performance claims. Ontario's NETE program provides scientific and engineering expertise for evaluating new technologies, their applicability to Ontario and their potential to meet Ontario's regulations. At a minimum, these programs help weed out unqualified firms or at least encourage clients to purchase certified products and services that meet specific standards.

Some industry analysts argue that excess capacity in the Canadian market is largely due to the lack of mega-projects that formerly occupied larger firms. The volume of engineering contracts in many traditional markets has shrunk by more than 40 per cent during the last five years. As a result, large firms have been forced to lay off staff, many of whom have set up their own small consulting businesses. These new small companies easily out bid large firms on small contracts.

Stimulating demand

Despite increased public awareness of environmental issues, companies are finding that demand for new products, services and technologies is growing at a slower rate than anticipated. This is particularly clear in situations where investing in new environmental technologies offers no demonstrable cost savings. Stricter regulations may be the best way to stimulate demand quickly.

With this goal in mind, the federal government has introduced the Code of Environmental Stewardship. This policy commits the federal government to conduct all of its operations in an environmentally responsible manner. The federal government is the nation's largest commercial landlord, and purchases more than $9 billion annually in consumer, commercial and industrial goods. Through its procurement of products and services, and its influence as a leading participant in the marketplace, it can act as a strong stimulus for Canada's domestic market for environmental goods and services.

Traditionally, investors have approached the environment industry with a great deal of caution. Although it is a sector fraught with risk, it also has the potential to deliver substantial long-term rewards to patient investors. Environmental firms have had a continuous challenge finding the necessary financial support to start and develop their businesses. The scarcity of capital in the environmental sector and the risk involved have created a capital market structure that rewards prudent and patient investors with above average returns.

Future growth areas

So far, the growth of Canada's environment industry has been driven by:

- ◆ an evolving regulatory framework;
- ◆ the rapid growth in international markets for environmental goods and services;
- ◆ growing awareness by industry and government of the many benefits of improved environmental performance; and
- ◆ increased public demand for environmentally responsible consumer goods.

A 1998 report prepared by the Delphi Group for Industry Canada predicts that Canada's environmental market will grow at an annual rate of about 3 per cent from 1996-2000.

In an article in a recent issue of *Environmental Science and Engineering*, Ken Barlow, P.Eng., (president, Barlow Associates Inc.) Stuart Angus, P.Eng., (president and CEO, Proctor & Redfern), Ken Morrison, P.Eng., (president, R.V. Anderson Associates Ltd.) and Peter Laugton, P.Eng., (chairman and vice president of R.V. Anderson) all agreed that profit margins would decrease and competition would increase for conventional engineering contracts. The consensus was that engineering consulting firms must offer broader solutions that include non-engineering components, such as management consulting and risk consulting, in order to continue growing prosperously.

Many in the environment industry predict that, in Canada, areas of growth will be environmental management (e.g. services related to ISO 14000 certification), pollution prevention, risk assessment of contaminated sites and the contracting out of municipal services. The companies best suited to capitalize on these growth areas are full service firms. For example, a company that can assist in the establishment of environmental management systems, identify areas of pollution prevention and subsequently reengineer and optimize in-plant operations is likely to see great long-term benefits. Similarly, a firm that has the ability to offer valuable environmental remediation advice and fast, cost-effective remediation technology will also be positioned advantageously.

Although estimates vary, the global market for environmental goods and services should approach $1 trillion by the year 2000, according to research conducted by the Delphi Group for Industry Canada. Developed countries currently represent approximately 80 per cent of global spending on the environment. However, developing countries will become an increasingly important source of demand as their industrial sectors grow. The Delphi Group report states that on an annual basis, environmental markets will grow by approximately 10 per cent in Africa and up to 17 per cent in Asia.

Conclusion

In Canada's environment industry, firms will likely consolidate through mergers and acquisitions, and competition will continue to be fierce with tight profit margins. However, market analysts are convinced that the $11 billion a year environmental market in Canada will continue to grow. The general view held by the industry is that full service firms capable of providing complete solutions to environmental problems will prosper. ◆

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