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Environment Accounts and Statistics Division

Environment Industry Business Sector 1996 and 1997



Econnections
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**Environment Industry
Business Sector, 1996 and 1997**

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Preface

In an effort to measure the size of the environment industry in Canada in terms of employment and economic output, the federal government, through Industry Canada, provided funding to Statistics Canada to develop a national statistical database on the environment industry.

This report presents data pertaining to businesses in the environment industry, obtained from the *Environment Industry Survey*, 1996 and 1997 as well as a number of other surveys carried out by Statistics Canada. These data have been combined in order to depict businesses that, in 1996 and 1997, produced environment-related construction services in Canada.

The data obtained from this survey and upcoming surveys will provide a more complete picture of the environment industry in Canada.

The data presented in this report do not reflect the **1999 Nunavut boundaries** since all data refer to the period before April 1, 1999. Therefore, where data on the Northwest Territories are shown, these data refer to the Northwest Territories (including Nunavut), as defined before April 1, 1999.¹

Acknowledgements

The contributions of the respondents and industry groups were critical to the successful completion of this project and are gratefully acknowledged.

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1. On April 1, 1999 the Territory of Nunavut was officially established through the **Nunavut Land Claim Agreement** and the **Nunavut Act**.

Symbols

The following standard symbols are used in Statistics Canada publications:

- .. figures not available
- ... figures not appropriate or not applicable
- nil or zero
- amount too small to be expressed
- x confidential to meet secrecy requirements of the *Statistics Act*

1 Highlights and Introduction

1.1 Highlights

- Total environmental revenues derived by Canadian businesses were \$11.5 billion in 1997, up 4% from their level in 1996.
- In both years, the bulk of environmental revenues originated from three industry groups: *wholesale trade: other; waste management; and construction: engineering*.
- The distribution of environmental revenues among the major categories of goods and services remained stable between 1996 and 1997. During the most recent year, environmental goods made up 46% of total environmental revenues. Another 41% came from environmental services and the remaining 13% from environment-related construction.
- At the provincial level, businesses in Ontario and Quebec were the biggest earners of revenues from environment-related activities. Ontario's environmental revenues increased by 3% to \$5.4 billion in 1997. Quebec's environmental revenues remained unchanged at \$2.5 billion during the same period.
- The Canadian environment industry was mostly made up of small and medium-sized establishments. There were 5 710 small and medium-sized establishments in 1996 and 5 908 in 1997, representing about 99% of the total number of Canadian environmental businesses in both years.
- Small establishments (less than 100 employees) were the dominant suppliers of environmental goods and services. These groups contributed 60% of total environmental revenues.
- Export markets represented 7% of environmental revenues in 1996, increasing to 8% in 1997. Exports of environmental goods and services reached \$898 million in 1997.
- The United States was the biggest export market for Canada's environment industry, followed by Europe and South America.
- Total employment of business establishments that reported revenues from environment-related activities rose from 138 668 in 1996 to 159 932 in 1997.

1.2 Introduction

Why is there a need to collect information on the environment industry?

The importance of environmental issues generates a parallel interest in evaluating the relationship between environmental efforts (done through regulations or voluntary actions) and economic activity. Governments and businesses, for example, look at the impacts of these environmental efforts on trade opportunities, both domestic and international (see Text Box 1.1).

Text Box 1.1

Environment Industry: Changing Conditions and Industry Responses

The environment industry is the beneficiary of one important aspect of change which is the increasing pressure on firms in all sectors to achieve higher standards of environmental performance. Firms are feeling pressure, not only from concerned citizens and governments, but also from lenders and investors who are worried about possible liability actions. As a result, there is a growing demand for pollution control technologies and processes that will help firms efficiently improve their environmental performance.

The increasing pressure on industry to demonstrate its commitment to sustainable development - development that meets the needs of the present without compromising the ability of future generations to meet their own needs - presents growth opportunities for the evolving environment industry.

Canada's environment industry is an *enabling industry*. Its success in developing efficient solutions for its domestic customers will be critical not only to its own long-term international competitiveness but also to the competitiveness of many other Canadian industrial sectors.

Source:

Industry Canada, 1999, <<http://strategis.ic.gc.ca/SSG/>>, (accessed July 13, 1999), Ottawa.

In September 1994, the Canadian government announced the *Canadian Environmental Industry Strategy* (CEIS). This strategy was a package of 22 initiatives developed to address the growing Canadian environmental sector. Statistics Canada was asked to address Initiative 8 of the CEIS - *to establish a national statistical database on the environment industry*.

The *Environment Industry Survey* was then conducted to address part of this initiative. The pilot survey was administered for reference year 1995. The next round of the survey

covered two reference years, 1996 and 1997. This report presents the latest survey results for these two years.¹

The Environment Industry Survey 1996 and 1997 covers all businesses operating in Canada (at the establishment level) that either produce environmental goods, provide environmental services or undertake environment-related construction activities. A more extensive description of these goods and services is found in *Section 2 - Definitions*.

Measuring the total supply of environmental goods and services

Data collected from the survey represent the business sector's environmental revenues and activities. These business sector estimates feed into the calculation of the ***total supply of environmental goods and services of the Canadian economy***. This is equal to the production of environmental goods and services by the following sectors:

- businesses (both for sale and for in-house purposes);
- governments; and
- imports.

The most recent estimates of total supply are found in Table A.28. Total supply of the environment industry was estimated at \$21.4 billion in 1997, a 4% increase from its level in 1996. The bulk of this total came from business sales and business own account. Government production reached \$5.3 billion and \$5.4 billion in 1996 and 1997. Imports, on the other hand, were \$2 billion in 1996, increasing slightly to \$2.5 billion in 1997.

1. Subsequently, the CEIS was terminated in May, 1998.

2 Definitions

There are several sets of criteria that define and delimit an environmental good or service. The environment industry is composed of a wide range of industries that produce various environmental goods and services. Thus, the environment industry is not classified as one specific industry under the Standard Industrial Classification (SIC) System.¹

This report defines the environment industry as “. . .all companies operating in Canada that are involved in whole or in part in the production of environmental goods, the provision of environmental services and the undertaking of environment-related construction activities.”² The statistical unit used in this report is the establishment.³

The environment industry consists of activities which produce goods and services that are used or can potentially be used to measure, prevent, limit or correct environmental damage (both natural or by human activity) to water, air, soil as well as problems related to waste, noise and ecosystems. The industry also includes clean technologies and related components which reduce environmental risk and minimise pollution, material use and energy.

This definition focuses on the *end-use* instead of the physical attributes of goods and services. It also addresses the core question: “Does a particular good or service exist in the market either **solely or partly** because of its environmental component?”

The detailed lists of environmental goods and services are shown in Text Boxes 2.1, 2.2 and 2.3. These lists were developed using Canadian and international sources.⁴ The major categories presented in the statistical tables (Annex A) are based on the condensed versions of the detailed lists.

1. Industry classification systems arrange producing units into industries, i.e. groups of establishments whose production represents a homogeneous set of goods or services or groups of establishments engaged in the same or similar kind of economic activity. The Standard Industrial Classification System (SIC) is the oldest and most widely used of the existing standard classifications.

2. Definition based on the *Environment Industry Survey, 1996 and 1997*.

3. An establishment is defined as “the smallest operating entity which produces as homogeneous a set of goods and services as possible and for which records provide data on the value of output together with the cost of materials used and cost of quantity of labour resources employed to produce the output.”

4. See *Interim Definition and Classification of the Environment Industry*, OECD/Eurostat Informal Working Group on the Environment Industry, 1996.

Text Box 2.1

Environmental Goods

Water

Water supply and conservation - potable water; water handling goods and equipment (pumps, pipes, valves); water conservation products (low-flow toilets, shower heads).

Wastewater Treatment - aeration systems; chemical recovery systems; biological recovery systems; gravity sediment systems; oil/water separation systems; screens/strainers; sewage treatment; water pollution control, wastewater reuse equipment; water treatment chemicals; water treatment equipment; clarifiers, filters and filter media; water purification equipment.

Air

Air pollution control - air handling equipment; catalytic converters; chemical recovery systems, dust collectors, separators/precipitators; incinerators, scrubbers; odour control equipment.

Waste

Solid and hazardous waste management - hazardous waste storage/ treatment equipment; waste collection equipment; waste disposal equipment; waste handling equipment; waste separation equipment; recycling equipment; incineration equipment.

Remediation and treatment of soil and groundwater - absorbents; bioremediation equipment; soil vapour extraction equipment; spill equipment; containment systems.

Energy

Energy efficient products - energy management equipment; energy recovery equipment; alternate energy systems and equipment; insulation and sealing products; energy efficient lighting, motors, etc.

Renewable energy and alternative fuel systems - renewable energy systems and equipment (solar, wind, tidal, geothermal); alternative fuel systems and equipment.

Instruments

Environmental monitoring, analysis and assessment - measuring and monitoring equipment; sampling systems; process and control equipment; data acquisition equipment; other instruments/machines; software.

Other

Other products - components of cleaner technologies

Others, specify - specified by respondents.

**Text Box 2.2
Environmental Services**

Water

Water supply and conservation - water purification; water delivery; water handling systems.

Wastewater management - sewage treatment systems; wastewater reuse systems; operation of water treatment facilities; storm water management; water and wastewater system assessment and design consulting.

Air

Air pollution control - emission monitoring; assessment/ evaluation, planning.

Waste

Solid and hazardous waste management - emergency response and spills cleanup; water handling, collection, transport, transfer stations and disposal; operation of sites, ownership/management of sites; recycling (sorting, baling, cleaning); operation of recycling plants (materials recovery facilities); hazardous waste management; medical waste management; nuclear waste management.

Remediation and treatment of soil and groundwater - cleanup; industrial services (cleaning for facilities and tanks); groundwater monitoring and remediation services; soil remediation services; hydrogeological services; site reclamation and remedial action services.

Engineering

Environmental contracting and engineering - engineering design, specifications, project management; biological and ecosystems studies; environment impact assessment, audits; water treatment; environmental management planning; risk and hazard assessment; laboratory and field services; environmental economics.

Analytical

Analytical services, data collection and analysis - measuring and monitoring; sampling; process and control; data acquisition.

Other

Environmental research and development - clean processes; end-of-pipe pollution abatement and control.

Environmental education and training, information - environmental education and training; environmental information searching services; environmental data management and analysis; ISO 9000/14000 support services.

Energy efficiency and renewable energy - energy audit; energy resource management; energy service companies; alternative energy system design; renewable energy services (site assessment, project development, installation); renewable energy production (solar, wind, tidal, geothermal, other).

Other services- conservation and resource management; environmental public relations; environmental law; environmental risk management and liability insurance; marketing and advertising; business and development services; emergency response planning; full-cost accounting services; public/private partnership development.

Others, specify - specified by respondents.

**Text Box 2.3
Environment-related Construction**

Total

Air pollution control

Water supply and conservation

Wastewater management - sewer systems; water treatment plants.

Solid and hazardous waste management - hazardous waste management; solid waste treatment, storage and disposal; recycling.

Remediation/cleanup of soil and water

Noise/vibration abatement - highway barriers.

Other environment-related construction - renewable energy (solar, wind, tidal, thermal, other); conservation (soil, water, wildlife, habitat); environmental management systems (forest management, etc.).

Others, specify - specified by respondents.

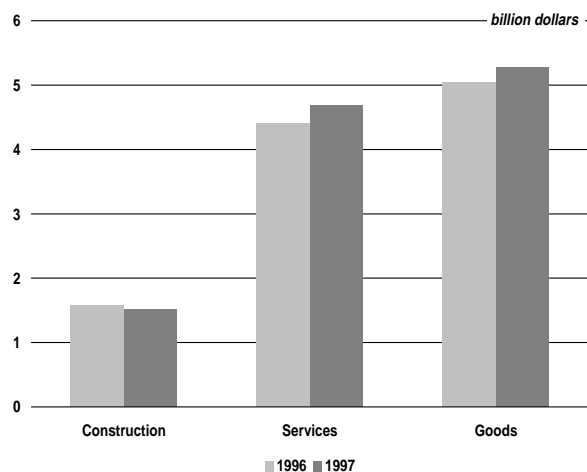
3 Survey Results

3.1 Environmental revenues

Revenues derived from the sale of environmental goods and services totalled \$11 billion in 1996 and \$11.5 billion in 1997 (Tables A.1 and A.2). For both years, environmental revenues represented about half of the total revenues reported by establishments that made up the environment industry.

The distribution of environmental revenues among the major categories of goods and services remained stable during the past two years (Figure 3.1). Revenues from sales of environmental goods totalled \$5.0 billion in 1996, increasing to \$5.3 billion in 1997. During the same period, environmental service revenues grew faster than the other categories, rising by about 6%, to \$4.7 billion in 1997. The 3% decrease in environment-related construction activities, on the other hand, brought down revenues to \$1.5 billion in 1997 (Tables A.1 and A.2).

Figure 3.1
Environmental Revenues by Major Categories of Goods and Services, 1996 and 1997



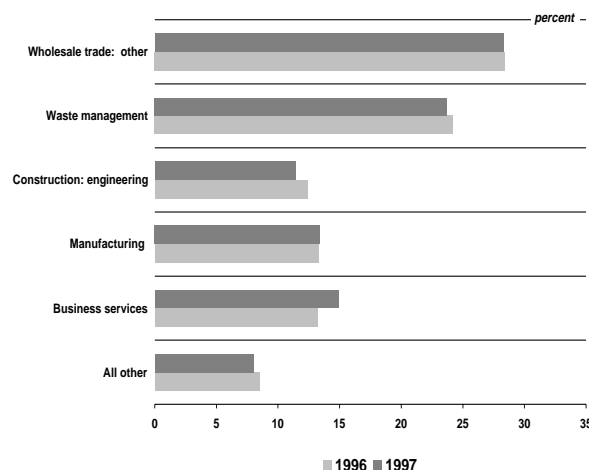
Source:
Statistics Canada, Environment Accounts and Statistics Division.

Between 1996 and 1997, two categories of environmental goods experienced the largest growth in revenues: 9% increase in goods used for water supply and conservation or wastewater treatment (\$740 million in 1997) and 8% increase in instruments used for environmental monitoring, analysis and assessment (\$170 million in 1997). In terms of services, environmental contracting and engineering led the way, posting a 22% growth from 1996 to 1997 (Tables A.3, A.4, A.5 and A.6).

Industry Profile

Three industry groups accounted for the bulk of environmental revenues: *wholesale trade: other (including scrap materials)*; *waste management*; and *construction: engineering*. The combined shares of these industries made up nearly two-thirds of business sector total environmental revenues during 1996 and 1997 (Figure 3.2).

Figure 3.2
Distribution of Environmental Revenues, top industries, 1996 and 1997



Source:
Statistics Canada, Environment Accounts and Statistics Division.

Scrap materials accounted for most of the revenues by the *wholesale trade: other* industry¹. Revenues of this industry group increased by over 3% from 1996 to 1997 (Tables A.1 and A.2). In 1997, establishments in the *waste management* industry also experienced an increase in revenues from waste management and remediation services. In contrast, the *construction: engineering* industry posted a 4% decrease in revenues which can be attributed to a slowdown in the demand for environment-related construction activities.

In *manufacturing*, each of the industries that produced environmental goods in 1996 and 1997 had a share of less than 5% of total environmental revenues. The *machinery* industry and *fabricated metals* industry reported this sector's most significant environmental revenues (Tables A.1 and A.2). The overall contribution of the manufacturing sector remained unchanged at about \$1.5 billion (13% of total) for both years.

Business services industries (mostly *consulting engineering*; *scientific and technical services*; and *management con-*

1. In this report, the following wholesale industries are included in the wholesale trade: other industry group: petroleum products (SIC 51), food, beverage, drug and tobacco (SIC 52), apparel and dry goods (SIC 53), household goods (SIC 54), motor vehicle parts and accessories (SIC 55), automobile wrecking (SIC 5911), other waste materials (SIC 5919), other paper and paper products (SIC 5929), industrial and household chemicals (SIC 5971), general merchandise (SIC 5981), and other products, not elsewhere classified (SIC 5999).

sulting) generated combined environmental revenues of \$1.4 billion in 1996 and \$1.7 billion in 1997. The *consulting engineering* industry alone made up most of these revenues (Tables A.1 and A.2).

All the other remaining industries had a combined share of less than 10% during the reference period. The types of industries ranged from primary producers (agriculture, fishing and mining) to health and social services providers. Indeed, this illustrates the highly diversified nature of the environment industry (Tables A.1 and A.2).

The breakdown by major categories of goods and services clearly reflected the types of goods and services provided by the top three environmental industries (Tables A.3, A.4, A.5, A.6, A.7 and A.8). In the goods category, more than half of the revenues from environmental goods in both 1996 and 1997 came from the "other" category due to significant revenues mainly from the sale of scrap materials of the *wholesale trade: other* industry. In the services category, revenues from solid and hazardous waste management or remediation and treatment of soil and groundwater were stable at about \$2.9 billion for the past two years. This was predominantly a function of revenues from the *waste management* industry.

In the services category, environmental engineering and contracting revenues were boosted by two *business service* industries: *consulting engineering* and *scientific and technical services*.

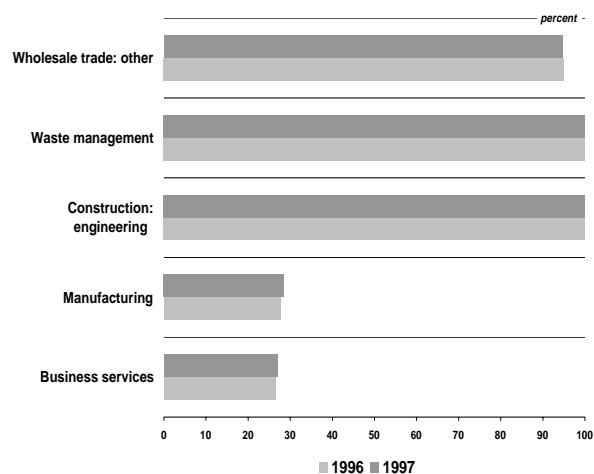
Specialists vs Non-specialists

The top three industry groups (*wholesale trade: other* (including scrap materials); *waste management*; and *construction: engineering*) derived a significantly larger portion of their total revenues from environment-related activities relative to all other industries¹. During 1996 and 1997, over 80% of the total revenues in each of these industries originated from the sales of environmental goods and services (Figure 3.3).

This result is consistent with the homogenous nature of each of these three industries, whereby establishments within each industry tend to have similar production functions. The *waste management* industry, for example, is made up of businesses that specialise in solid and hazardous waste management as well as remediation services. In 1997, the industry generated 100% of its total revenues from the provision of these environmental services (Figure 3.3).

1. The data for *construction: engineering* were derived from demand-side estimates of total environmental expenditures.

Figure 3.3
Share of Environmental Revenues to Total Revenues,
Combination of Industries and Groups, 1996 and 1997



Source:
Statistics Canada, Environment Accounts and Statistics Division.

By comparison, businesses in industry groups such as *manufacturing* and *business services* have more diversified operations. Establishments within these industries are also likely to have heterogeneous production functions. Machine shops, for example, may produce special types of environmental goods to be used as inputs to or components of larger environmental equipment. At the same time, they may also produce similar types of goods to be used for non-environmental purposes. Business service establishments such as consulting engineering firms also have significant revenues from non-environmental consulting, advisory and design services.

Province or territory

Approximately 70% of total environmental revenues originated from Ontario and Quebec (Tables A.9 and A.10). Ontario's environmental revenues reached \$5.4 billion in 1997, up 3% from the previous year. Quebec's environmental revenues essentially remained unchanged between 1996 and 1997, at \$2.5 billion. British Columbia ranked third with 1997 environmental revenues of \$1.2 billion. Alberta and Saskatchewan had the highest growth in environmental revenues during the period (15% and 11%, respectively).

The split among the major categories of goods and services varied from one province to another. Ontario and Quebec mirrored the national level distribution, with the goods category accounting for the bulk of environmental revenues. In both provinces, there was a higher proportion of goods sold in the "other" category primarily from the sales of scrap materials. In 1996 and 1997, goods used for air pollution control was the second highest revenue-earner for Ontario while goods used for water supply and conservation or wastewater treatment ranked second in Quebec (Tables A.11 and A.12).

In Prince Edward Island, environment-related construction was, by far, the main source of environmental revenues during the period. British Columbia and New Brunswick generated most of their environmental revenues from environmental services (Tables A.13, A.14, A.15 and A.16).

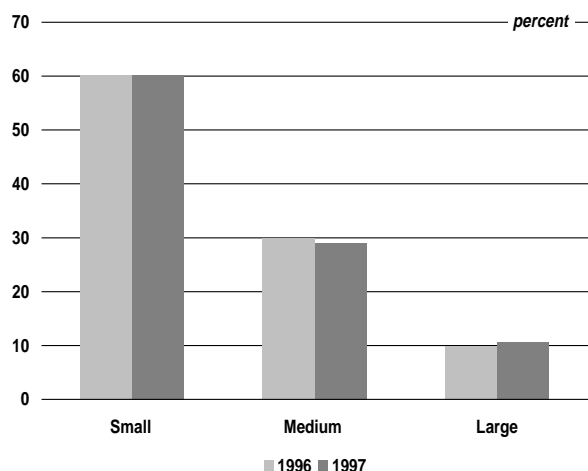
Establishment size

In 1996, there were 5 742 business establishments engaged, in whole or in part, in environment-related activities. This number increased to 5 950 in 1997 (Tables A.17 and A.18). The Canadian environment industry was generally made up of small and medium-sized establishments.¹

There was essentially no change in the distribution of environmental revenues by establishment size between 1996 and 1997. During both years, 60% of total environmental revenues were earned by small establishments. Medium-sized establishments generated 29% and the remaining 11% came from large establishments (Figure 3.4).

Figure 3.4

Distribution of Environmental Revenues by Establishment Size, 1996 and 1997



Note:

Small establishments have fewer than 100 employees. Medium-sized establishments have 100 to 499 employees. Large establishments have 500 or more employees.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Small establishments dominated the market for environmental goods, with most goods in the "other" category (Tables A.19 and A.20). Environmental services (mainly from the waste category) as well as environment-related construction were provided mainly by both small and medium-sized establishments (Table A.21, A.22, A.23 and A.24).

Despite the relatively small revenue share of large establishments, the comparison of year-over-year growth rates showed that this group posted the most significant increase

1. Small establishments are often described as businesses having fewer than 100 employees. Medium-sized establishments have 100 to 499 employees. Large establishments have 500 or more employees.

(13%) in environmental revenues, to \$1.2 billion in 1997 (Tables A.17 and A.18).

Client base

Environmental goods and services exist because they cater to the needs and requirements of markets that are generally driven by regulatory compliance or voluntary actions. In 1996 and 1997, who were the main clients served by Canada's environment industry?

Local governments ranked first for the majority of reporting establishments in all of the industry groups. In 1996, 21% of environment-related market was associated with local government projects. The share decreased slightly to 20% in 1997 (Table A.25).

Mining, energy and related products industry was second with an 11% share for both 1996 and 1997. Specifically, establishments in the *business services* industries cited these industries as their most significant market.

Other key markets were *forestry and forest products* industries. In particular, wholesalers of hardware, plumbing and heating sold most of their environmental goods to businesses in these industries. The share dropped from 11% to 10% between 1996 and 1997.

3.2 Trade

Domestic markets

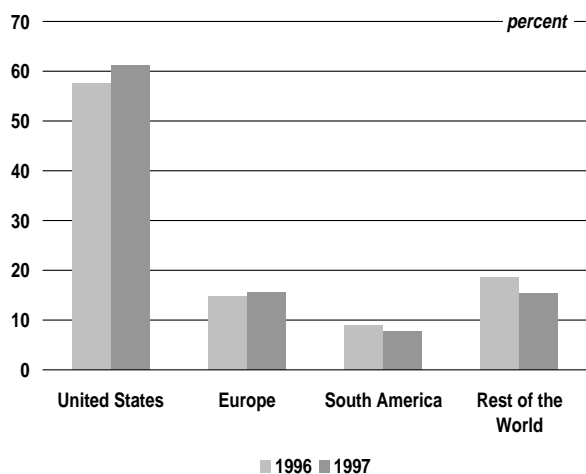
Over 90% of environmental revenues in 1996 and 1997 were earned from domestic markets (Tables A.26 and A.27). In all of the provinces, the clients of environmental business establishments were mostly located within their own province. This was not a surprising result, considering that the primary clients were local governments.

The highest ratios of *within-province clients* in 1996 were found in Newfoundland (93%) and Saskatchewan (85%). The ratios for these two provinces stayed the same during the following year. Manitoba and New Brunswick, on the other hand, posted the highest ratios of *out-of-province clients* (46% and 42%, respectively, in 1997) compared with all the other provinces.

International markets

International markets represented 7% and 8% of environmental revenues in 1996 and 1997, respectively (Tables A.29 and A.30). Canada's exports of environmental goods and services reached \$898 million in 1997, a notable 17% increase from the previous year. The United States was by far the biggest market for Canada's environment industry, followed by Europe and South America (Figure 3.5).

Figure 3.5
Distribution of Environmental Exports, by Destination, 1996 and 1997



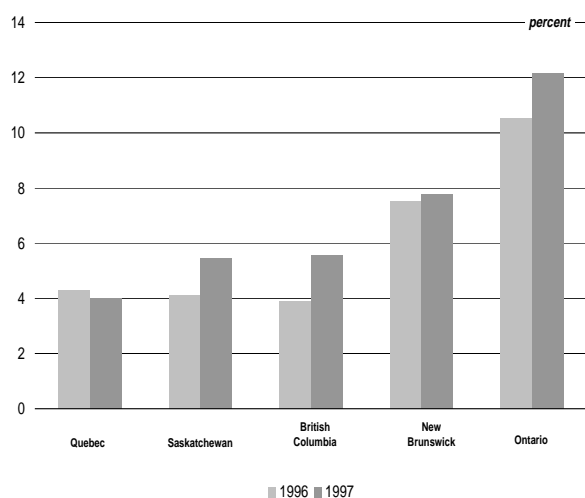
Source:
Statistics Canada, Environment Accounts and Statistics Division.

Total environmental exports to the United States rose 24% from \$443 million to \$550 million in 1996 and 1997 (Tables A.29 and A.30). Environmental exports to Europe also grew at about the same rate (23%) to \$140 million in 1997. Environmental exports to the Middle East/Africa showed the biggest improvement, increasing by 30%.

Approximately \$20 out of every \$100 worth of Canadian environmental exports in 1996 and 1997 were produced by the *machinery* industry. This industry earned \$162 million from environmental exports in 1996 and \$185 million in the following year. The *wholesale trade: machinery and equipment* industry also had significant environmental export revenues of over \$90 million (Tables A.29 and A.30). Of all the industry groups, however, the *consulting engineering* industry showed a remarkable increase in environmental exports revenues, from \$64 million in 1996 to \$106 million in 1997. This may be due, in part, to the increasing expertise in developing niche markets abroad for water and wastewater treatment facilities as well as environmental monitoring instruments.

At the provincial level, over 80% of total environmental exports originated from Ontario and Quebec (Tables A.31 and A.32). Ontario's environmental exports (mostly to the United States and Europe) totalled \$652 million in 1997, up 19% from 1996. Environmental export revenues increased in all the provinces except Quebec and Manitoba. Quebec had a 7% decrease in environmental exports during this period while Manitoba's environmental exports dropped from \$8 million in 1996 to \$2 million in 1997. Provincial comparisons of the proportion of environmental exports to total environmental revenues showed that in Ontario, New Brunswick and British Columbia, a higher proportion of environmental revenues was earned from foreign markets (Figure 3.6).

Figure 3.6
Share of Total Environmental Exports to Total Environmental Revenues, Selected Provinces, 1996 and 1997



Source:
Statistics Canada, Environment Accounts and Statistics Division

Small and medium-sized establishments conducted most of the export activities (Tables A.33 and A.34). Medium-sized establishments sold over \$300 million per year worth of environmental goods and services. Small establishments employing 50 to 99 workers ranked second; their environmental exports increased by over 40% between 1996 and 1997.

3.3 Total employment

Reporting business establishments employed 138 668 full-time, part-time and contract workers in 1996. Total employment increased by 15% in 1997 to 159 932 (Tables A.1 and A.2).

The top employers were *consulting engineering*, *waste management*, *wholesale trade: other*, and *construction engineering* industries. Undoubtedly, the top-performing industries in terms of environmental revenues (*waste management*, *wholesale trade: other*, and *construction engineering*) also accounted for higher employment shares. In the case of the *consulting engineering* industry, there were 29 095 workers in 1996. The total number of workers increased to 45 974 in 1997 (+58%), boosting this industry's share to 29% of total employment for that year.

Ontario and Quebec businesses had the highest employment totals. Employment growth in both provinces, however, was relatively slower than the overall growth registered for Canada (9% and 7%, respectively). British Columbia and Alberta had similar employment growth of over 30% from 1996 to 1997 (Tables A.9 and A.10).

In terms of establishment size, small establishments employed the largest number of workers, followed by medium-

sized establishments in 1996 but large establishments in 1997 (Tables A.17 and A.18).

3.4 Work-in-progress

Current work is focused on the following areas to improve the next Environment Industry Survey cycle, reference year 1998:

- strengthening the linkage between the Environment Industry Survey and other Statistics Canada surveys that collect environment-related information;
- investigating other possible sources of data that could be used as reference tools for the survey;
- continuing the update and development of the survey coverage to reflect the overall population of the Canadian environment industry;
- evaluating the procedures and methodologies used to keep track of data quality;
- re-classifying the industries on the basis of the North American Industrial Classification System;
- improving the coverage of technologies, goods and services related to climate change and energy conservation; and
- planning the more timely release of survey results.

4 Methodology

4.1 Objective

The *Environment Industry Survey 1996 and 1997* collected data on the revenues of environmental goods and services, total operating expenses, total capital expenses and total employment. These data are aggregated with information from other sources to produce estimates of national and provincial economic activity of the environment industry. Information from the survey can be used by businesses for market analysis, by trade associations to study the performance of the environment industry, by government to develop national and regional policies, and by other users involved in research and policymaking.

4.2 Coverage and data collection

The *Environment Industry Survey 1996 and 1997* was a census of all establishments operating in Canada that were involved either in whole or in part in the production of environmental goods, the provision of environmental services and the undertaking of environment-related construction activities. In addition to the Environment Industry questionnaire, data from other existing Statistics Canada surveys that collected information on environment-related revenues and activities were also used.

Environment Industry questionnaire

The survey frame was developed in consultation with key public and private sector groups that have an in-depth knowledge of the environment industry. Industry directories and thorough research conducted on specific companies also helped in updating and improving the survey frame.

For the reference years 1996 and 1997, respondents were asked to report the following financial information:

- total revenues and revenues realised from the sale of environmental goods or services (environmental revenues);
- specific types of environmental activities conducted by the establishment;
- breakdown of environmental revenues by client base and by customer location;
- environmental export revenues by region;

- anticipated environmental revenues for the year 2000 and how much of these revenues will be generated outside of Canada;
- total operating expenses;
- total capital expenses;
- total employment; and
- total environmental employment (i.e. employees who spent time on environmental activities).

The mail-out took place in December, 1997. The questionnaire was mailed to 2 206 establishments identified in the frame.

Data collection took place during the first quarter of 1998. Survey questionnaires were mailed to the specific establishments identified in the frame and the responses were returned by mail. The surveys were addressed to a contact person who was either responsible for, or had knowledge of, the environmental product or services operations of the company. In the case of some multi-establishment firms, the survey was mailed to the head office which either forwarded the questionnaire to the appropriate establishment or provided a combined report for all targeted establishments.

Follow-ups by fax and/or telephone were carried out after the due date to remind respondents to return their surveys.

Questionnaires were edited in two steps. First, validity edits were applied to ensure that responses to particular questions fell within a limited range of possible values. This type of editing was applied mostly to the questions on quantities but was also used to identify unusual values. Second, consistency edits were then applied. Cases where responses in one section of the questionnaire were inconsistent with those given in other sections were identified and edited. These edits were done on an ongoing basis throughout the data collection phase.

Additional follow-ups were carried out to collect missing data and to resolve inconsistencies.

In 1996, a total of 1 389 fully-completed and partially-completed questionnaires were returned. The number of non-response questionnaires that were considered to be in the scope of the survey frame were 337. Thus, from the initial number of surveyed establishments, 1 726 were considered to be *in scope* for the purposes of the survey. The response rate, based on the ratio of the number of fully and partially completed questionnaires to the total number of in-scope questionnaires, was 80% in 1996. The ratio did not change in 1997. Table 4.1 illustrates alternative calculations of response rates based on the following variables:

- total employment; and
- total revenues.

Table 4.1
Response rates: Environment Industry Survey 1996 and 1997

	Responses ¹	Response as a percentage	
		Total ²	of total
1996			
According to number of reporting establishments	1 389	1 726	80.5
According to total employment	57 264	78 041	73.4
According to total revenues	9 088	12 760	71.2
1997			
According to number of reporting establishments	1 436	1 785	80.4
According to total employment	63 459	84 570	75.0
According to total revenues	10 026	13 746	72.9

Note:

- Responses are based on fully-completed and partially-completed questionnaires.
- The total includes all in-scope respondents only. Out-of-scope establishments, mergers, closed and/or sold establishments, etc. are excluded.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Other surveys

To minimise response burden and at the same time to produce a more complete set of estimates for the environment industry, the results of the *Environment Industry Survey 1996 and 1997* were integrated with other existing Statistics Canada surveys that asked for information on environmental revenues and activities. These surveys included:

- Waste Management Industry Survey: Business Sector
- Annual Survey of Engineering Services
- Annual Survey of Scientific and Technical Services
- Annual Survey of Accounting and Bookkeeping Services
- Annual Survey of Management Consulting

Financial, employment and other data from these surveys were consolidated to produce a combined data set for firms that produced environmental goods and/or provided environmental services.

Imputation for non-response was not carried out on the records coming from the above-mentioned surveys. The final micro-data on environment-related revenues and activities were obtained and incorporated into the combined file.

Estimates of environment-related construction activities were derived from the demand-side estimates of the *Survey of Environmental Protection Expenditures 1996 and 1997*.

4.3 Data quality

Many factors affect the quality of data produced in a survey. For example, respondents may have made errors in interpreting questions, answers may have been incorrectly entered on the questionnaires, and errors may have been

introduced during the data capture or tabulation process. Every effort was made to reduce the occurrence of such errors in the survey. These efforts included a complete verification of keyed data, validity and consistency edits and extensive follow-up with the key businesses that are heavily involved in providing environmental goods and services.

In cases where values were missing from survey cells after follow-up, the information was imputed based on the mean values by industry and by province. Imputed values were then carefully evaluated and compared with values from the Business Register, other Statistics Canada surveys and other sources (annual reports, for example). The imputation rates for selected categories are shown in Table 4.2.

The tables presented in this report covered the data that were determined to be of sufficient quality for publication at a disaggregated level. Data confidentiality considerations

Table 4.2
Imputation rates for selected categories, 1996 and 1997

Category	Imputation rate ¹	
	1996	1997
	percent	
Total revenues	-	-
Total environmental revenues	26.5	25.0
Total exports	14.8	15.4
Total employment	-	-

Note:

- The proportion of the total value of the category that is imputed.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

as well as imputation rates played a role in this assessment. Data must be released at a level where the disclosure of the identity of any respondent is not possible. In addition, the levels of imputation must remain within reasonable limits.

There was a significant improvement in the coverage of the universe in 1996 and 1997. The frame was more complete and industry classifications assigned to establishments were more accurate compared with the first round of the survey (reference year 1995).

4.4 Data Limitations

A better coverage of the population was achieved during the second cycle of the survey. In general, respondents were able to classify their environmental activities according to the detailed lists illustrated in Text Box 2.1, 2.2 and 2.3.

Export revenues and key export markets were also identified. At the industry level, export estimates were not available for the following industries: *waste management*, *wholesale trade: other* and *construction: engineering*.

In terms of employment data, however, respondents had difficulty in estimating the number of workers directly involved in environment-related activities. This was a similar problem encountered in the *1995 Environment Industry Survey*. Only **total employment** of those businesses producing environmental goods and services are presented in this report. Labour productivity analysis specifically for the environment industry is, therefore, not possible.

The total environmental revenues from environment-related construction services (mostly the *construction: engineering* industry) were demand-side estimates based on information provided by purchasers of environmental goods and services. Consequently, there is no estimate for the total number of firms.

Revenues presented in this report pertain to **gross revenues**. As a rule, revenues will be double counted to the extent that goods and services produced by an establishment in the environment industry are purchased by another one in the same industry. For this reason, it would be incorrect to compare the aggregate environmental revenues to gross domestic product (GDP) which is the sum of the unduplicated production of all industries. Thus, readers should not express the revenues presented in this report as percentage of GDP. At this stage of the project, it would be difficult to estimate the unduplicated value of production (value added) without placing excessive response burden on environmental businesses.

Understanding the above-mentioned caveats helps the reader make informed decisions before conducting further research and analysis using the estimates in this report.

References

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- Statistics Canada, 1999, Waste Management Industry Survey: Business and Government Sectors, 1996, Item 16F0023XPE, Ottawa.
- Statistics Canada, 1998, Environmental Protection Expenditures in the Business Sector, Preliminary Data, Item 16F0006PPE, Ottawa.
- Statistics Canada, 1999, Architectural, Engineering and Scientific Services in Canada, Catalogue No. 63-234-XPB, Ottawa.
- Statistics Canada, 1980, Standard Industrial Classification 1980, Catalogue 12-501E, Ottawa.

Annex A: Statistical Tables

Table A.1
Total and Environmental Revenues by Industry, 1996

Industry	Establishments ¹ number	Total	Total	Environmental	Environmental	Environment-	Total	
		Employment	revenues	goods	services	related construction	environmental revenues	
		million dollars						
Services related to agriculture and to mining	29	1 627	329.0	1.9	38.1	-	39.9	
Other primary industries	14	1 030	61.6	22.1	9.7	-	31.8	
Rubber	8	108	13.0	10.5	-	-	10.5	
Plastic	24	3 360	320.5	117.2	--	4.3	121.5	
Textile products	9	318	26.7	10.7	4.8	-	15.5	
Wood	6	413	156.4	x	x	x	10.8	
Primary metals	10	934	210.7	x	x	x	92.2	
Fabricated metals	29	4 015	840.2	259.6	8.3	-	267.9	
Machinery	159	6 582	2 106.3	369.4	94.5	0.3	464.2	
Transportation equipment	11	824	106.2	61.8	2.7	-	64.4	
Electrical and electronic products	19	997	172.1	28.2	10.1	2.0	40.3	
Non-metallic minerals	14	698	113.9	93.9	-	-	93.9	
Chemical and chemical products	37	3 199	809.1	114.6	10.0	-	124.6	
Other manufacturing	39	1 541	348.5	132.4	0.8	-	133.2	
Rest of manufacturing sector	10	354	88.8	15.6	16.4	-	32.0	
Construction: building	11	311	104.0	25.9	17.9	1.2	45.0	
Construction: engineering ²	...	10 494	1 367.3	2.1	10.5	1 354.7	1 367.3	
Construction: trade contracting	42	2 001	307.6	4.4	42.8	68.7	115.9	
Transportation	4	230	24.6	x	x	-	13.8	
Other utility industry	77	3 304	429.6	173.3	34.0	17.9	225.2	
Waste management industry	1 475	19 351	2 662.1	-	2 662.1	-	2 662.1	
Wholesale trade: hardware, plumbing, heating	17	577	114.7	x	x	-	30.4	
Wholesale trade: machinery and equipment	77	2 169	552.0	233.5	32.6	45.5	311.6	
Wholesale trade: other (including scrap materials) ³	2 332	16 749	3 294.3	3 101.4	30.3	-	3 131.7	
Retail trade	4	89	11.0	-	1.2	-	1.2	
Finance and insurance	14	4 724	1 039.3	6.7	28.9	28.2	63.8	
Business services:								
Computer and related services	27	1 147	141.4	26.7	6.6	-	33.3	
Accounting and bookkeeping	5	5 438	580.8	x	x	-	40.0	
Architectural services	6	57	3.5	-	x	x	1.9	
Consulting engineering	677	29 095	3 090.9	39.7	798.3	23.3	861.3	
Scientific and technical services	295	7 036	674.0	34.2	305.8	7.6	347.6	
Lawyers	35	4 802	630.3	-	38.4	0.4	38.8	
Management consulting	137	2 793	294.3	4.2	69.4	16.7	90.3	
All other business services	34	577	54.8	x	35.5	x	39.0	
Health and social services	23	328	16.9	-	x	x	6.6	
Other services ⁴	32	1 396	95.6	6.0	36.7	0.8	43.4	
Canada	5 742	138 668	21 191.7	5 033.1	4 407.8	1 572.0	11 012.9	

Notes:

Figures may not add due to rounding.

1. The total number of establishments in this table does not include construction: engineering establishments due to the methodology used to derive the estimates.

2. These data were derived from demand-side estimates of environmental protection expenditures.

3. Wholesale trade: other mainly consists of scrap/waste material industries. Wholesale trade: other includes petroleum products (SIC 51), food, beverage, drug and tobacco (SIC 52), apparel and dry goods (SIC 53), household goods (SIC 54), motor vehicle, parts and accessories (SIC 55), automobile wrecking (SIC 5911), other waste materials (SIC 5919), other paper and paper products (SIC 5929), industrial and household chemicals (SIC 5971), general merchandise (SIC 5981), and other products, not elsewhere classified (SIC 5999).

4. Includes rental of machinery and equipment industry.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.2
Total and Environmental Revenues by Industry, 1997

Industry	Establishments ¹ number	Total	Total	Environmental	Environmental	Environment- related	Total	
		Employment	revenues	goods	services	construction	environmental revenues	
		million dollars						
Services related to agriculture and to mining	30	1 690	363.5	2.2	43.3	-	45.5	
Other primary industries	14	1 076	77.5	21.7	14.8	-	36.5	
Rubber	15	208	22.0	19.7	-	-	19.7	
Plastic	30	3 764	374.3	139.1	-	4.0	143.1	
Textile products	9	314	29.5	11.4	5.1	-	16.5	
Wood	6	413	155.5	x	x	x	12.6	
Primary metals	9	907	216.5	92.6	0.2	-	92.8	
Fabricated metals	30	4 317	871.8	x	x	-	278.0	
Machinery	162	6 664	2 064.9	418.3	57.5	0.3	476.1	
Transportation equipment	11	819	97.3	53.0	3.4	-	56.3	
Electrical and electronic products	19	1 027	185.4	31.9	10.1	2.0	44.1	
Non-metallic minerals	14	725	124.9	104.0	-	-	104.0	
Chemical and chemical products	37	3 174	846.4	128.7	9.6	-	138.3	
Other manufacturing	38	1 569	358.3	135.6	0.6	-	136.2	
Rest of manufacturing sector	10	378	90.5	16.3	17.4	-	33.6	
Construction: building	11	315	105.4	27.9	18.0	1.5	47.3	
Construction: engineering ²	...	10 228	1 307.6	1.6	10.1	1 295.9	1 307.6	
Construction: trade contracting	42	2 450	304.5	4.9	42.1	63.3	110.3	
Transportation	4	228	23.5	x	x	x	13.5	
Other utility industry	75	3 363	446.0	166.5	35.5	18.5	220.4	
Waste management industry	1 475	19 351	2 715.3	-	2 715.3	-	2 715.3	
Wholesale trade: hardware, plumbing, heating	17	566	122.4	x	x	-	30.7	
Wholesale trade: machinery and equipment	78	2 280	580.1	250.5	33.4	45.2	329.0	
Wholesale trade: other (including scrap materials) ³	2 444	17 198	3 427.0	3 195.0	49.3	-	3 244.3	
Retail trade	6	104	12.7	-	2.2	-	2.2	
Finance and insurance	14	4 598	1 030.3	5.7	27.6	31.0	64.4	
Business services:								
Computer and related services	27	1 182	144.7	30.1	7.0	-	37.1	
Accounting and bookkeeping	4	5 430	580.7	x	x	x	40.1	
Architectural services	6	59	4.0	x	x	x	1.8	
Consulting engineering	729	45 974	3 765.7	55.7	925.4	27.4	1 008.4	
Scientific and technical services	318	9 665	789.8	36.9	388.1	5.6	430.6	
Lawyers	36	4 648	648.9	-	39.8	0.4	40.3	
Management consulting	141	2 855	319.8	2.8	73.8	24.6	101.1	
All other business services	35	652	62.3	4.1	41.4	0.1	45.7	
Health and social services	22	322	17.1	--	x	x	7.0	
Other services ⁴	32	1 419	97.9	5.0	40.2	0.9	46.1	
Canada	5 950	159 932	22 384.2	5 274.5	4 681.1	1 521.0	11 476.6	

Notes:

Figures may not add due to rounding.

1. The total number of establishments in this table does not include construction: engineering establishments due to the methodology used to derive the estimates.

2. These data were derived from demand-side estimates of environmental protection expenditures.

3. Wholesale trade: other mainly consists of scrap/waste material industries. Wholesale trade: other includes petroleum products (SIC 51), food, beverage, drug and tobacco (SIC 52), apparel and dry goods (SIC 53), household goods (SIC 54), motor vehicle, parts and accessories (SIC 55), automobile wrecking (SIC 5911), other waste materials (SIC 5919), other paper and paper products (SIC 5929), industrial and household chemicals (SIC 5971), general merchandise (SIC 5981), and other products, not elsewhere classified (SIC 5999).

4. Includes rental of machinery and equipment industry.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.3
Revenues of Environmental Goods by Industry, 1996

Industry	Environmental goods							Total environmental goods revenues	Environmental goods share of total environmental revenues
	Total environmental revenues	Water	Air	Waste	Energy	Instruments	Other		
	million dollars								percent
Services related to agriculture and to mining	39.9	-	-	-	x	x	x	1.9	4.7
Other primary industries	31.8	x	-	-	x	-	x	22.1	69.5
Rubber	10.5	-	x	2.2	x	-	x	10.5	100.0
Plastic	121.5	31.5	x	44.9	x	-	32.7	117.2	96.5
Textile products	15.5	x	x	x	x	-	x	10.7	69.0
Wood	10.8	x	x	x	x	x	x	x	x
Primary metals	92.2	x	x	x	x	x	x	x	x
Fabricated metals	267.9	x	x	25.1	39.5	x	8.5	259.6	96.9
Machinery	464.2	174.0	88.8	54.6	8.1	17.1	26.9	369.4	79.6
Transportation equipment	64.4	x	x	49.9	-	-	x	61.8	96.0
Electrical and electronic products	40.3	x	x	x	x	9.3	6.5	28.2	70.0
Non-metallic minerals	93.9	38.7	x	x	x	-	x	93.9	100.0
Chemical and chemical products	124.6	57.1	x	6.3	x	2.3	21.3	114.6	92.0
Other manufacturing	133.2	x	5.3	x	8.8	72.3	7.8	132.4	99.4
Rest of manufacturing sector	32.0	x	-	x	-	-	10.9	15.6	48.8
Construction: building	45.0	x	x	-	-	-	-	25.9	57.6
Construction: engineering ¹	1 367.3	x	x	-	--	-	x	2.1	0.2
Construction: trade contracting	115.9	x	x	0.6	1.2	x	--	4.4	3.8
Transportation	13.8	x	x	x	x	x	x	x	x
Other utility industry	225.2	88.6	x	7.3	2.6	x	63.3	173.3	77.0
Waste management industry	2 662.1	-	-	-	-	-	-	-	-
Wholesale trade: hardware, plumbing, heating	30.4	x	x	x	x	x	x	x	x
Wholesale trade: machinery and equipment	311.6	112.7	x	9.4	x	21.2	6.2	233.5	74.9
Wholesale trade: other (including scrap materials) ²	3 131.7	41.0	x	20.4	x	x	2 982.2	3 101.4	99.0
Retail trade	1.2	-	-	-	-	-	-	-	-
Finance and insurance	63.8	x	x	x	x	x	-	6.7	10.5
Business services:									
Computer and related services	33.3	x	x	x	--	12.8	x	26.7	80.2
Accounting and bookkeeping	40.0	x	x	x	x	x	x	x	x
Architectural services	1.9	-	-	-	-	-	-	-	-
Consulting engineering	861.3	19.4	4.9	x	x	5.6	4.0	39.7	4.6
Scientific and technical services	347.6	0.7	x	1.2	x	x	4.6	34.2	9.8
Lawyers	38.8	-	-	-	-	-	-	-	-
Management consulting	90.3	x	x	x	x	x	0.8	4.2	4.6
All other business services	39.0	x	x	x	x	x	x	x	x
Health and social services	6.6	-	-	-	-	-	-	-	-
Other services ³	43.4	0.5	-	2.9	0.2	-	2.4	6.0	13.8
Canada	11 012.9	677.6	519.1	262.7	136.0	156.6	3 281.2	5 033.1	45.7

Notes:

Figures may not add due to rounding.

1. These data were derived from demand-side estimates of environmental protection expenditures.

2. Wholesale trade: other mainly consists of scrap/waste material industries. Wholesale trade: other includes petroleum products (SIC 51), food, beverage, drug and tobacco (SIC 52), apparel and dry goods (SIC 53), household goods (SIC 54), motor vehicle, parts and accessories (SIC 55), automobile wrecking (SIC 5911), other waste materials (SIC 5919), other paper and paper products (SIC 5929), industrial and household chemicals (SIC 5971), general merchandise (SIC 5981), and other products, not elsewhere classified (SIC 5999).

3. Includes rental of machinery and equipment industry.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.4
Revenues of Environmental Goods by Industry, 1997

Industry	Environmental goods							Total environmental goods revenues	Environmental goods share of total environmental revenues percent
	Total environmental revenues	Water	Air	Waste	Energy	Instruments	Other		
	million dollars								
Services related to agriculture and to mining	45.5	-	-	-	x	x	x	2.2	4.8
Other primary industries	36.5	--	-	x	x	-	x	21.7	59.5
Rubber	19.7	-	x	2.4	x	-	13.0	19.7	100.0
Plastic	143.1	40.7	x	43.5	x	-	44.8	139.1	97.2
Textile products	16.5	x	x	x	x	-	x	11.4	69.1
Wood	12.6	x	x	x	x	x	x	x	x
Primary metals	92.8	x	-	x	--	-	x	92.6	99.8
Fabricated metals	278.0	x	x	x	x	x	x	x	x
Machinery	476.1	187.8	72.9	52.9	4.1	17.9	82.6	418.3	87.9
Transportation equipment	56.3	x	x	41.4	x	-	x	53.0	94.1
Electrical and electronic products	44.1	x	x	x	x	10.6	6.6	31.9	72.3
Non-metallic minerals	104.0	45.9	x	x	x	-	x	104.0	100.0
Chemical and chemical products	138.3	61.5	x	6.0	x	2.3	31.2	128.7	93.1
Other manufacturing	136.2	x	5.5	x	x	73.2	9.6	135.6	99.6
Rest of manufacturing sector	33.6	x	-	x	-	-	11.5	16.3	48.5
Construction: building	47.3	x	x	-	-	-	-	27.9	59.0
Construction: engineering ¹	1 307.6	x	x	-	--	-	x	1.6	.1
Construction: trade contracting	110.3	x	x	0.6	1.4	--	--	4.9	4.4
Transportation	13.5	x	x	x	x	x	x	x	x
Other utility industry	220.4	89.1	x	7.2	x	x	52.1	166.5	75.5
Waste management industry	2 715.3	-	-	-	-	-	-	-	-
Wholesale trade: hardware, plumbing, heating	30.7	x	x	x	x	x	x	x	x
Wholesale trade: machinery and equipment	329.0	120.6	x	10.5	x	25.3	7.8	250.5	76.1
Wholesale trade: other (including scrap materials) ²	3 244.3	48.8	x	25.5	x	x	3 062.9	3 195.0	98.5
Retail trade	2.2	-	-	-	-	-	-	-	-
Finance and insurance	64.4	x	x	--	x	--	-	5.7	8.9
Business services:									
Computer and related services	37.1	x	x	x	x	13.9	x	30.1	81.1
Accounting and bookkeeping	40.1	x	x	x	x	x	x	x	x
Architectural services	1.8	x	x	x	x	x	x	x	x
Consulting engineering	1 008.4	29.4	7.1	x	x	9.0	4.3	55.7	5.5
Scientific and technical services	430.6	0.9	x	1.0	x	x	5.0	36.9	8.6
Lawyers	40.3	-	-	-	-	-	-	-	-
Management consulting	101.1	x	x	x	--	x	1.0	2.8	2.8
All other business services	45.7	x	x	x	x	x	x	4.1	9.0
Health and social services	7.0	-	-	-	-	--	-	--	--
Other services ³	46.1	x	x	1.9	x	-	x	5.0	10.8
Canada	11 476.6	740.5	521.2	259.9	139.2	169.6	3 444.1	5 274.5	46.0

Notes:

Figures may not add due to rounding.

1. These data were derived from demand-side estimates of environmental protection expenditures.

2. Wholesale trade: other mainly consists of scrap/waste material industries. Wholesale trade: other includes petroleum products (SIC 51), food, beverage, drug and tobacco (SIC 52), apparel and dry goods (SIC 53), household goods (SIC 54), motor vehicle, parts and accessories (SIC 55), automobile wrecking (SIC 5911), other waste materials (SIC 5919), other paper and paper products (SIC 5929), industrial and household chemicals (SIC 5971), general merchandise (SIC 5981), and other products, not elsewhere classified (SIC 5999).

3. Includes rental of machinery and equipment industry.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.5
Revenues of Environmental Services by Industry, 1996

Industry	Environmental services							Total environmental services revenues	Environmental services share of total environmental revenues percent
	Total environmental revenues	Water	Air	Waste	Engineering	Analytical	Other		
	million dollars								
Services related to agriculture and to mining	39.9	x	--	6.5	x	23.7	3.7	38.1	95.5
Other primary industries	31.8	x	x	-	x	x	8.1	9.7	30.5
Rubber	10.5	-	-	-	-	-	-	-	-
Plastic	121.5	--	--	--	--	--	--	--	--
Textile products	15.5	x	x	x	x	x	x	4.8	31.0
Wood	10.8	x	x	x	x	x	x	x	x
Primary metals	92.2	x	x	x	x	x	x	x	x
Fabricated metals	267.9	x	-	x	-	-	-	8.3	3.1
Machinery	464.2	82.0	x	x	x	x	x	94.5	20.4
Transportation equipment	64.4	x	-	-	x	-	-	2.7	4.2
Electrical and electronic products	40.3	x	x	-	x	x	x	10.1	25.1
Non-metallic minerals	93.9	-	-	-	-	-	-	-	-
Chemical and chemical products	124.6	0.7	x	x	x	-	8.0	10.0	8.0
Other manufacturing	133.2	-	x	--	x	x	x	0.8	0.6
Rest of manufacturing sector	32.0	-	-	x	x	-	x	16.4	51.2
Construction: building	45.0	x	-	x	x	-	x	17.9	39.8
Construction: engineering ¹	1 367.3	x	x	1.8	x	x	x	10.5	0.8
Construction: trade contracting	115.9	5.2	x	7.8	1.2	x	25.3	42.8	36.9
Transportation	13.8	x	x	x	x	x	x	x	x
Other utility industry	225.2	x	x	22.2	3.2	1.0	5.5	34.0	15.1
Waste management industry	2 662.1	-	-	2 662.1	-	-	-	2 662.1	100.0
Wholesale trade: hardware, plumbing, heating	30.4	x	x	x	x	x	x	x	x
Wholesale trade: machinery and equipment	311.6	-	x	x	x	x	2.1	32.6	10.5
Wholesale trade: other (including scrap materials) ²	3 131.7	1.2	x	20.0	-	x	x	30.3	1.0
Retail trade	1.2	x	-	x	x	-	-	1.2	100.0
Finance and insurance	63.8	5.5	x	x	x	x	x	28.9	45.3
Business services:									
Computer and related services	33.3	x	x	x	-	x	5.1	6.6	19.8
Accounting and bookkeeping	40.0	x	x	x	x	x	x	x	x
Architectural services	1.9	x	x	x	x	x	x	x	x
Consulting engineering	861.3	59.8	16.8	57.5	589.9	18.1	56.3	798.3	92.7
Scientific and technical services	347.6	14.4	2.1	23.4	117.4	87.3	61.1	305.8	88.0
Lawyers	38.8	x	--	0.4	0.8	x	36.9	38.4	99.0
Management consulting	90.3	10.2	1.9	6.5	20.3	6.2	24.3	69.4	76.9
All other business services	39.0	x	-	9.7	7.1	x	16.7	35.5	91.0
Health and social services	6.6	x	x	x	x	x	x	x	x
Other services ³	43.4	1.5	4.7	6.0	x	x	21.3	36.7	84.6
Canada	11 012.9	203.1	58.6	2 852.1	810.9	151.4	331.8	4 407.8	40.0

Notes:

Figures may not add due to rounding.

1. These data were derived from demand-side estimates of environmental protection expenditures.

2. Wholesale trade: other mainly consists of scrap/waste material industries. Wholesale trade: other includes petroleum products (SIC 51), food, beverage, drug and tobacco (SIC 52), apparel and dry goods (SIC 53), household goods (SIC 54), motor vehicle, parts and accessories (SIC 55), automobile wrecking (SIC 5911), other waste materials (SIC 5919), other paper and paper products (SIC 5929), industrial and household chemicals (SIC 5971), general merchandise (SIC 5981), and other products, not elsewhere classified (SIC 5999).

3. Includes rental of machinery and equipment industry.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.6
Revenues of Environmental Services by Industry, 1997

Industry	Environmental services							Total environmental services revenues	Environmental services share of total environmental revenues percent
	Total environmental revenues	Water	Air	Waste	Engineering	Analytical	Other		
	million dollars								
Services related to agriculture and to mining	45.5	x	--	5.6	6.6	25.8	x	43.3	95.2
Other primary industries	36.5	x	x	-	x	x	13.0	14.8	40.5
Rubber	19.7	-	-	-	-	-	-	-	-
Plastic	143.1	-	-	-	-	-	-	-	-
Textile products	16.5	x	x	x	x	x	x	5.1	30.9
Wood	12.6	x	x	x	x	x	x	x	x
Primary metals	92.8	x	x	x	x	x	x	0.2	0.2
Fabricated metals	278.0	x	x	x	x	x	x	x	x
Machinery	476.1	40.9	x	x	x	x	x	57.5	12.1
Transportation equipment	56.3	x	-	-	x	-	-	3.4	6.0
Electrical and electronic products	44.1	x	x	-	x	x	x	10.1	22.9
Non-metallic minerals	104.0	-	-	-	-	-	-	-	-
Chemical and chemical products	138.3	0.5	x	x	x	-	7.8	9.6	6.9
Other manufacturing	136.2	-	x	x	x	x	0.2	0.6	0.4
Rest of manufacturing sector	33.6	-	-	x	x	-	x	17.4	51.8
Construction: building	47.3	x	-	x	x	-	x	18.0	38.1
Construction: engineering ¹	1 307.6	x	x	2.5	x	x	x	10.1	0.8
Construction: trade contracting	110.3	5.2	x	6.8	1.3	x	x	42.1	38.2
Transportation	13.5	x	x	x	x	x	x	x	x
Other utility industry	220.4	2.5	x	21.8	3.3	1.0	x	35.5	16.1
Waste management industry	2 715.3	-	-	2 715.3	-	-	-	2 715.3	100.0
Wholesale trade: hardware, plumbing, heating	30.7	x	x	x	x	x	x	x	x
Wholesale trade: machinery and equipment	329.0	-	x	x	x	5.3	2.3	33.4	10.2
Wholesale trade: other (including scrap materials) ²	3 244.3	x	x	34.5	-	x	x	49.3	1.5
Retail trade	2.2	x	x	x	x	x	-	2.2	100.0
Finance and insurance	64.4	4.4	x	x	x	x	x	27.6	42.9
Business services:									
Computer and related services	37.1	x	x	x	--	0.9	5.1	7.0	18.9
Accounting and bookkeeping	40.1	x	x	x	x	x	x	x	x
Architectural services	1.8	x	x	x	x	x	x	x	x
Consulting engineering	1 008.4	65.0	19.5	57.0	706.2	18.1	59.6	925.4	91.8
Scientific and technical services	430.6	14.4	2.2	23.7	168.1	88.3	91.3	388.1	90.1
Lawyers	40.3	0.1	--	x	0.9	x	x	39.8	98.8
Management consulting	101.1	10.2	2.0	5.9	22.8	6.0	26.8	73.8	73.0
All other business services	45.7	1.2	0.0	9.4	7.7	1.0	22.2	41.4	90.6
Health and social services	7.0	x	x	x	1.6	2.7	x	6.8	97.1
Other services ³	46.1	1.4	x	9.3	1.2	x	22.0	40.2	87.2
Canada	11 476.6	167.0	66.0	2 921.5	985.7	153.3	387.7	4 681.1	40.8

Notes:

Figures may not add due to rounding.

1. These data were derived from demand-side estimates of environmental protection expenditures.

2. Wholesale trade: other mainly consists of scrap/waste material industries. Wholesale trade: other includes petroleum products (SIC 51), food, beverage, drug and tobacco (SIC 52), apparel and dry goods (SIC 53), household goods (SIC 54), motor vehicle, parts and accessories (SIC 55), automobile wrecking (SIC 5911), other waste materials (SIC 5919), other paper and paper products (SIC 5929), industrial and household chemicals (SIC 5971), general merchandise (SIC 5981), and other products, not elsewhere classified (SIC 5999).

3. Includes rental of machinery and equipment industry.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.7
Revenues of Environment-related Construction Services by Industry, 1996

Industry	Environment-related construction services		
	Total	Total environment-related	Environment-related
	environmental revenues	construction services revenues	construction services' share of total environmental revenues
	million dollars		percent
Services related to agriculture and to mining	39.9	-	-
Other primary industries	31.8	-	-
Rubber	10.5	-	-
Plastic	121.5	4.3	3.5
Textile products	15.5	-	-
Wood	10.8	x	x
Primary metals	92.2	x	x
Fabricated metals	267.9	-	-
Machinery	464.2	0.3	0.1
Transportation equipment	64.4	-	-
Electrical and electronic products	40.3	2.0	5.0
Non-metallic minerals	93.9	-	-
Chemical and chemical products	124.6	-	-
Other manufacturing	133.2	-	-
Rest of manufacturing sector	32.0	-	-
Construction: building	45.0	1.2	2.7
Construction: engineering ¹	1 367.3	1 354.7	99.1
Construction: trade contracting	115.9	68.7	59.3
Transportation	13.8	-	-
Other utility industry	225.2	17.9	7.9
Waste management industry	2 662.1	-	-
Wholesale trade: hardware, plumbing, heating	30.4	-	-
Wholesale trade: machinery and equipment	311.6	45.5	14.6
Wholesale trade: other (including scrap materials) ²	3 131.7	-	-
Retail trade	1.2	-	-
Finance and insurance	63.8	28.2	44.2
Business services:			
Computer and related services	33.3	-	-
Accounting and bookkeeping	40.0	-	-
Architectural services	1.9	x	x
Consulting engineering	861.3	23.3	2.7
Scientific and technical services	347.6	7.6	2.2
Lawyers	38.8	0.4	1.0
Management consulting	90.3	16.7	18.5
All other business services	39.0	x	x
Health and social services	6.6	x	x
Other services ³	43.4	0.8	1.8
Canada	11 012.9	1 572.0	14.3

Notes:

Figures may not add due to rounding.

1. These data were derived from demand-side estimates of environmental protection expenditures.

2. Wholesale trade: other mainly consists of scrap/waste material industries. Wholesale trade: other includes petroleum products (SIC 51), food, beverage, drug and tobacco (SIC 52), apparel and dry goods (SIC 53), household goods (SIC 54), motor vehicle, parts and accessories (SIC 55), automobile wrecking (SIC 5911), other waste materials (SIC 5919), other paper and paper products (SIC 5929), industrial and household chemicals (SIC 5971), general merchandise (SIC 5981), and other products, not elsewhere classified (SIC 5999).

3. Includes rental of machinery and equipment industry.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.8
Revenues of Environment-related Construction Services by Industry, 1997

Industry	Environment-related construction services		
	Total	Total environment-related	Environment-related
	environmental	construction services	construction services' share of
revenues	revenues	total environmental revenues	
	million dollars		percent
Services related to agriculture and to mining	45.5	-	-
Other primary industries	36.5	-	-
Rubber	19.7	-	-
Plastic	143.1	4.0	2.8
Textile products	16.5	-	-
Wood	12.6	x	x
Primary metals	92.8	-	-
Fabricated metals	278.0	-	-
Machinery	476.1	0.3	0.1
Transportation equipment	56.3	-	-
Electrical and electronic products	44.1	2.0	4.5
Non-metallic minerals	104.0	-	-
Chemical and chemical products	138.3	-	-
Other manufacturing	136.2	-	-
Rest of manufacturing sector	33.6	-	-
Construction: building	47.3	1.5	3.2
Construction: engineering ¹	1 307.6	1 295.9	99.1
Construction: trade contracting	110.3	63.3	57.4
Transportation	13.5	x	x
Other utility industry	220.4	18.5	8.4
Waste management industry	2 715.3	-	-
Wholesale trade: hardware, plumbing, heating	30.7	-	-
Wholesale trade: machinery and equipment	329.0	45.2	13.7
Wholesale trade: other (including scrap materials) ²	3 244.3	-	-
Retail trade	2.2	-	-
Finance and insurance	64.4	31.0	48.1
Business services:			
Computer and related services	37.1	-	-
Accounting and bookkeeping	40.1	x	x
Architectural services	1.8	x	x
Consulting engineering	1 008.4	27.4	2.7
Scientific and technical services	430.6	5.6	1.3
Lawyers	40.3	0.4	1.0
Management consulting	101.1	24.6	24.3
All other business services	45.7	0.1	0.2
Health and social services	7.0	0.2	2.9
Other services ³	46.1	0.9	2.0
Canada	11 476.6	1 521.0	13.2

Notes:

Figures may not add due to rounding.

1. These data were derived from demand-side estimates of environmental protection expenditures.

2. Wholesale trade: other mainly consists of scrap/waste material industries. Wholesale trade: other includes petroleum products (SIC 51), food, beverage, drug and tobacco (SIC 52), apparel and dry goods (SIC 53), household goods (SIC 54), motor vehicle, parts and accessories (SIC 55), automobile wrecking (SIC 5911), other waste materials (SIC 5919), other paper and paper products (SIC 5929), industrial and household chemicals (SIC 5971), general merchandise (SIC 5981), and other products, not elsewhere classified (SIC 5999).

3. Includes rental of machinery and equipment industry.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.9
Total and Environmental Revenues by Province and Territory, 1996

Province/Territory	Establishments ¹ number	Total	Total	Environmental	Environmental	Environment- related	Total	
		employment	revenues	goods	services	construction	environmental revenues	
		million dollars						
Newfoundland	118	1 719	154.3	x	42.2	x	103.8	
Prince Edward Island	20	281	38.0	3.0	6.2	25.2	34.4	
Nova Scotia	240	3 189	384.0	x	111.1	x	223.3	
New Brunswick	222	3 446	330.9	76.3	89.6	46.0	211.8	
Quebec	1 461	30 549	4 442.3	1 288.3	861.8	366.2	2 516.3	
Ontario	2 020	57 596	10 711.4	2 625.6	2 113.1	465.6	5 204.3	
Manitoba	163	4 434	481.7	x	117.9	x	303.0	
Saskatchewan	224	2 724	245.2	87.9	x	x	167.7	
Alberta	499	16 954	1 930.5	x	493.5	x	1 085.4	
British Columbia	751	17 555	2 449.4	386.0	521.6	238.2	1 145.8	
Yukon and Northwest Territories	24	221	24.1	x	x	8.0	17.0	
Canada	5 742	138 668	21 191.7	5 033.1	4 407.8	1 572.0	11 012.9	

Notes:

Figures may not add due to rounding.

1. The total number of establishments in this table does not include the establishments in the construction: engineering industry due to the methodology used to derive the estimates.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.10
Total and Environmental Revenues by Province and Territory, 1997

Province/Territory	Establishments ¹ number	Total	Total	Environmental	Environmental	Environment- related	Total	
		employment	revenues	goods	services	construction	environmental revenues	
		million dollars						
Newfoundland	125	1 835	159.9	x	45.5	x	105.9	
Prince Edward Island	24	316	36.7	4.2	6.0	22.3	32.6	
Nova Scotia	255	3 989	412.1	x	125.4	x	245.4	
New Brunswick	242	3 957	353.8	82.1	94.4	45.9	222.4	
Quebec	1 458	32 748	4 526.8	1 290.7	891.1	329.1	2 511.0	
Ontario	2 066	62 620	10 998.9	2 763.5	2 175.1	434.5	5 373.1	
Manitoba	181	4 924	508.9	x	112.7	x	300.4	
Saskatchewan	246	3 176	267.2	100.3	x	x	185.4	
Alberta	543	22 499	2 188.7	x	590.6	x	1 253.3	
British Columbia	783	23 524	2 904.8	427.1	583.4	219.2	1 229.7	
Yukon and Northwest Territories	27	345	26.5	x	x	7.3	17.4	
Canada	5 950	159 932	22 384.2	5 274.5	4 681.1	1 521.0	11 476.6	

Notes:

Figures may not add due to rounding.

1. The total number of establishments in this table does not include the establishments in the construction: engineering industry due to the methodology used to derive the estimates.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.11
Revenues of Environmental Goods by Province and Territory, 1996

Province/Territory	Total environmental revenues	Environmental goods						Total environmental goods revenues	Environmental goods' share of total environmental revenues percent
		Water	Air	Waste	Energy	Instruments	Other		
million dollars									
Newfoundland	103.8	-	x	x	-	x	x	x	x
Prince Edward Island	34.4	-	-	-	-	-	3.0	3.0	8.7
Nova Scotia	223.3	x	x	x	x	x	x	x	x
New Brunswick	211.8	x	x	x	x	1.4	61.1	76.3	36.0
Quebec	2 516.3	216.3	37.1	92.1	17.0	31.6	894.1	1 288.3	51.2
Ontario	5 204.3	380.2	440.4	123.5	80.5	82.9	1 518.0	2 625.6	50.4
Manitoba	303.0	x	x	x	x	x	x	x	x
Saskatchewan	167.7	x	x	1.1	0.8	x	48.1	87.9	52.4
Alberta	1 085.4	x	x	x	x	x	x	x	x
British Columbia	1 145.8	18.1	1.3	3.3	28.9	20.5	313.9	386.0	33.7
Yukon and Northwest Territories	17.0	x	x	x	x	x	x	x	x
Canada	11 012.9	677.6	519.1	262.7	136.0	156.6	3 281.2	5 033.1	45.7

Note:

Figures may not add due to rounding.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.12
Revenues of Environmental Goods by Province and Territory, 1997

Province/Territory	Total environmental revenues	Environmental goods						Total environmental goods revenues	Environmental goods' share of total environmental revenues percent
		Water	Air	Waste	Energy	Instruments	Other		
million dollars									
Newfoundland	105.9	x	x	x	x	x	x	x	x
Prince Edward Island	32.6	-	-	-	-	-	4.2	4.2	12.9
Nova Scotia	245.4	x	x	x	x	x	x	x	x
New Brunswick	222.4	x	x	x	x	1.7	70.6	82.1	36.9
Quebec	2 511.0	224.3	37.1	81.3	16.2	32.7	899.0	1 290.7	51.4
Ontario	5 373.1	419.9	441.8	130.4	85.7	91.2	1 594.5	2 763.5	51.4
Manitoba	300.4	x	x	x	x	x	x	x	x
Saskatchewan	185.4	x	x	1.1	x	x	55.9	100.3	54.1
Alberta	1 253.3	x	x	x	x	x	x	x	x
British Columbia	1 229.7	30.3	1.8	3.6	30.0	22.5	338.9	427.1	34.7
Yukon and Northwest Territories	17.4	x	x	x	x	x	x	x	x
Canada	11 476.6	740.5	521.2	259.9	139.2	169.6	3 444.1	5 274.5	46.0

Note:

Figures may not add due to rounding.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.13
Revenues of Environmental Services by Province and Territory, 1996

Province/Territory	Total environmental revenues	Environmental services						Total environmental services revenues	Environmental services' share of total environmental revenues percent
		Water	Air	Waste	Engineering	Analytical	Other		
		million dollars							
Newfoundland	103.8	0.9	x	27.0	9.7	x	2.2	42.2	40.6
Prince Edward Island	34.4	-	-	x	x	-	-	6.2	18.0
Nova Scotia	223.3	3.1	x	54.8	38.9	x	11.2	111.1	49.8
New Brunswick	211.8	6.0	0.8	48.6	17.2	3.0	13.9	89.6	42.3
Quebec	2 516.3	34.6	3.3	630.5	129.0	38.3	26.1	861.8	34.2
Ontario	5 204.3	122.1	48.8	1 415.6	321.9	49.7	155.0	2 113.1	40.6
Manitoba	303.0	13.6	x	53.0	38.9	x	11.1	117.9	38.9
Saskatchewan	167.7	x	x	x	x	x	x	x	x
Alberta	1 085.4	9.0	1.7	283.0	122.6	25.4	51.8	493.5	45.5
British Columbia	1 145.8	13.1	1.9	308.7	113.4	28.9	55.6	521.6	45.5
Yukon and Northwest Territories	17.0	x	x	x	x	x	x	x	x
Canada	11 012.9	203.1	58.6	2 852.1	810.9	151.4	331.8	4 407.8	40.0

Note:

Figures may not add due to rounding.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.14
Revenues of Environmental Services by Province and Territory, 1997

Province/Territory	Total environmental revenues	Environmental services						Total environmental services revenues	Environmental services' share of total environmental revenues percent
		Water	Air	Waste	Engineering	Analytical	Other		
		million dollars							
Newfoundland	105.9	0.8	x	27.4	11.5	x	3.1	45.5	43.0
Prince Edward Island	32.6	-	-	x	x	-	-	6.0	18.4
Nova Scotia	245.4	3.3	x	55.8	50.7	x	12.1	125.4	51.1
New Brunswick	222.4	5.0	0.9	47.2	21.7	3.2	16.4	94.4	42.4
Quebec	2 511.0	32.5	3.0	644.5	151.6	35.6	23.9	891.1	35.5
Ontario	5 373.1	91.4	56.0	1 446.6	337.5	50.5	193.1	2 175.1	40.5
Manitoba	300.4	6.2	x	53.6	39.7	x	11.4	112.7	37.5
Saskatchewan	185.4	x	x	x	x	x	x	x	x
Alberta	1 253.3	9.6	2.2	289.3	201.7	29.0	58.8	590.6	47.1
British Columbia	1 229.7	16.7	1.5	325.4	147.9	28.3	63.6	583.4	47.4
Yukon and Northwest Territories	17.4	x	x	x	x	x	x	x	x
Canada	11 476.6	167.0	66.0	2 921.5	985.7	153.3	387.7	4 681.1	40.8

Note:

Figures may not add due to rounding.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.15
Revenues of Environment-related Construction Services by Province and Territory, 1996

Province/Territory	Environment-related construction services		
	Total environmental revenues	Total environment-related construction services revenues	Environment-related construction services' share of total environmental revenues
	million dollars		percent
Newfoundland	103.8	x	x
Prince Edward Island	34.4	25.2	73.2
Nova Scotia	223.3	x	x
New Brunswick	211.8	46.0	21.7
Quebec	2 516.3	366.2	14.6
Ontario	5 204.3	465.6	8.9
Manitoba	303.0	x	x
Saskatchewan	167.7	x	x
Alberta	1 085.4	x	x
British Columbia	1 145.8	238.2	20.8
Yukon and Northwest Territories	17.0	8.0	47.1
Canada	11 012.9	1 572.0	14.3

Note:

Figures may not add due to rounding.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.16
Revenues of Environment-related Construction Services by Province and Territory, 1997

Province/Territory	Environment-related construction services		
	Total environmental revenues	Total environment-related construction services revenues	Environment-related construction services' share of total environmental revenues
	million dollars		percent
Newfoundland	105.9	x	x
Prince Edward Island	32.6	22.3	68.4
Nova Scotia	245.4	x	x
New Brunswick	222.4	45.9	20.6
Quebec	2 511.0	329.1	13.1
Ontario	5 373.1	434.5	8.1
Manitoba	300.4	x	x
Saskatchewan	185.4	x	x
Alberta	1 253.3	x	x
British Columbia	1 229.7	219.2	17.8
Yukon and Northwest Territories	17.4	7.3	42.0
Canada	11 476.6	1 521.0	13.2

Note:

Figures may not add due to rounding.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.17
Total and Environmental Revenues by Establishment Size,¹ 1996

Establishment size	Establishments ² number	Total employment	Total revenues	Environmental goods	Environmental services	Environment- related construction	Total environmental revenues
0-4	2 983	4 473	1 014.1	546.6	x	x	805.2
5-9	814	5 423	662.5	282.0	267.7	5.4	555.1
10-24	992	15 411	2 633.4	1 226.6	601.7	65.1	1 893.4
25-49	442	15 731	2 256.9	942.8	562.2	112.9	1 618.0
50-99	289	20 398	2 905.9	787.8	794.8	173.9	1 756.6
100-499	190	41 581	6 445.1	893.5	1 422.2	982.6	3 298.2
500-999	22	16 039	1 741.1	x	207.5	x	432.1
>999	10	19 612	3 532.8	x	x	-	654.3
Canada	5 742	138 668	21 191.7	5 033.1	4 407.8	1 572.0	11 012.9

Notes:

Figures may not add due to rounding.

1. Small establishments have fewer than 100 employees. Medium-sized establishments have 100 to 499 employees. Large establishments have 500 or more employees.

2. The total number of establishments in this table does not include the establishments in the construction: engineering industry due to the methodology used to derive the estimates.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.18
Total and Environmental Revenues by Establishment Size,¹ 1997

Establishment size	Establishments ² number	Total employment	Total revenues	Environmental goods	Environmental services	Environment- related construction	Total environmental revenues
0-4	3 065	4 593	1 038.2	568.6	x	x	830.2
5-9	848	5 671	781.0	309.6	277.7	12.0	599.3
10-24	1 029	15 955	2 608.8	1 213.1	613.8	54.6	1 881.5
25-49	458	16 201	2 460.3	1 028.0	524.1	125.1	1 677.2
50-99	305	21 851	2 986.5	895.5	837.5	198.2	1 931.3
100-499	203	46 313	6 517.0	908.4	1 509.7	908.8	3 327.0
500-999	25	18 336	1 737.3	x	275.3	x	492.2
>999	17	31 012	4 255.2	x	x	-	738.0
Canada	5 950	159 932	22 384.2	5 274.5	4 681.1	1 521.0	11 476.6

Notes:

Figures may not add due to rounding.

1. Small establishments have fewer than 100 employees. Medium-sized establishments have 100 to 499 employees. Large establishments have 500 or more employees.

2. The total number of establishments in this table does not include the establishments in the construction: engineering industry due to the methodology used to derive the estimates.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.19
Revenues of Environmental Goods by Establishment Size,¹ 1996

Establishment size	Total environmental revenues	Environmental goods						Total environmental goods revenues	Environmental goods' share of total environmental revenues percent
		Water	Air	Waste	Energy	Instruments	Other		
		million dollars							
0-4	805.2	22.5	2.4	3.9	0.8	3.7	513.3	546.6	67.9
5-9	555.1	15.2	3.5	12.3	11.2	8.8	230.9	282.0	50.8
10-24	1 893.4	89.5	53.6	26.2	17.4	33.3	1 006.6	1 226.6	64.8
25-49	1 618.0	92.7	76.1	33.6	14.6	23.9	701.9	942.8	58.3
50-99	1 756.6	154.3	60.4	66.9	11.1	25.6	469.6	787.8	44.8
100-499	3 298.2	276.1	126.8	100.9	51.1	48.8	289.9	893.5	27.1
500-999	432.1	x	x	x	x	x	x	x	x
>999	654.3	x	x	x	x	x	x	x	x
Canada	11 012.9	677.6	519.1	262.7	136.0	156.6	3 281.2	5 033.1	45.7

Notes:

Figures may not add due to rounding.

1. Small establishments have fewer than 100 employees. Medium-sized establishments have 100 to 499 employees. Large establishments have 500 or more employees.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.20
Revenues of Environmental Goods by Establishment Size,¹ 1997

Establishment size	Total environmental revenues	Environmental goods						Total environmental goods revenues	Environmental goods' share of total environmental revenues percent
		Water	Air	Waste	Energy	Instruments	Other		
		million dollars							
0-4	830.2	29.8	2.7	2.4	1.4	2.7	529.7	568.6	68.5
5-9	599.3	16.7	4.8	16.4	12.5	11.1	248.1	309.6	51.7
10-24	1 881.5	82.7	54.4	27.0	11.5	36.2	1 001.3	1 213.1	64.5
25-49	1 677.2	103.5	88.7	34.1	14.6	30.3	756.8	1 028.0	61.3
50-99	1 931.3	159.2	62.6	63.7	7.3	27.5	575.3	895.5	46.4
100-499	3 327.0	311.4	126.8	96.8	60.6	48.8	264.1	908.4	27.3
500-999	492.2	x	x	x	x	x	x	x	x
>999	738.0	x	x	x	x	x	x	x	x
Canada	11 476.6	740.5	521.2	259.9	139.2	169.6	3 444.1	5 274.5	46.0

Notes:

Figures may not add due to rounding.

1. Small establishments have fewer than 100 employees. Medium-sized establishments have 100 to 499 employees. Large establishments have 500 or more employees.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.21
Revenues of Environmental Services by Establishment Size,¹ 1996

Establishment size	Total environmental revenues	Environmental services						Total environmental services revenues	Environmental services' share of total environmental revenues percent
		Water	Air	Waste	Engineering	Analytical	Other		
		million dollars							
0-4	805.2	x	x	x	x	x	x	x	
5-9	555.1	4.4	2.0	194.1	42.7	7.0	17.5	267.7	48.2
10-24	1 893.4	31.8	4.9	392.5	95.0	30.1	47.4	601.7	31.8
25-49	1 618.0	102.5	1.6	277.5	117.0	15.0	48.6	562.2	34.7
50-99	1 756.6	33.0	4.5	542.2	126.8	33.9	54.4	794.8	45.2
100-499	3 298.2	24.6	29.7	922.3	283.3	62.4	99.8	1 422.2	43.1
500-999	432.1	x	x	x	87.2	x	17.0	207.5	48.0
>999	654.3	x	x	x	x	x	x	x	x
Canada	11 012.9	203.1	58.6	2 852.1	810.9	151.4	331.8	4 407.8	40.0

Notes:

Figures may not add due to rounding.

1. Small establishments have fewer than 100 employees. Medium-sized establishments have 100 to 499 employees. Large establishments have 500 or more employees.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.22
Revenues of Environmental Services by Establishment Size,¹ 1997

Establishment size	Total environmental revenues	Environmental services						Total environmental services revenues	Environmental services' share of total environmental revenues percent
		Water	Air	Waste	Engineering	Analytical	Other		
		million dollars							
0-4	830.2	x	x	x	x	x	x	x	x
5-9	599.3	4.2	3.6	195.8	47.1	7.7	19.1	277.7	46.3
10-24	1 881.5	28.8	5.0	399.6	104.9	26.9	48.6	613.8	32.6
25-49	1 677.2	37.3	2.7	287.6	107.8	25.2	63.6	524.1	31.2
50-99	1 931.3	64.0	4.4	559.7	129.3	24.4	55.7	837.5	43.4
100-499	3 327.0	21.9	30.7	948.0	305.9	66.2	137.0	1 509.7	45.4
500-999	492.2	x	x	x	153.7	x	17.1	275.3	55.9
>999	738.0	x	x	x	x	x	x	x	x
Canada	11 476.6	167.0	66.0	2 921.5	985.7	153.3	387.7	4 681.1	40.8

Notes:

Figures may not add due to rounding.

1. Small establishments have fewer than 100 employees. Medium-sized establishments have 100 to 499 employees. Large establishments have 500 or more employees.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.23
Revenues of Environment-related Construction Services by Establishment Size,¹ 1996

Establishment size	Environment-related construction services		
	Total environmental	Total environment-related	Environment-related
	revenues	construction services	construction services' share of total environmental revenues
	million dollars	revenues	percent
0-4	805.2	x	x
5-9	555.1	5.4	1.0
10-24	1 893.4	65.1	3.4
25-49	1 618.0	112.9	7.0
50-99	1 756.6	173.9	9.9
100-499	3 298.2	982.6	29.8
500-999	432.1	x	x
>999	654.3	-	-
Canada	11 012.9	1 572.0	14.3

Notes:

Figures may not add due to rounding.

1. Small establishments have fewer than 100 employees. Medium-sized establishments have 100 to 499 employees. Large establishments have 500 or more employees.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.24
Revenues of Environment-related Construction Services by Establishment Size,¹ 1997

Establishment size	Environment-related construction services		
	Total environmental	Total environment-related	Environment-related
	revenues	construction services	construction services' share of total environmental revenues
	million dollars	revenues	percent
0-4	830.2	x	x
5-9	599.3	12.0	2.0
10-24	1 881.5	54.6	2.9
25-49	1 677.2	125.1	7.5
50-99	1 931.3	198.2	10.3
100-499	3 327.0	908.8	27.3
500-999	492.2	x	x
>999	738.0	-	-
Canada	11 476.6	1 521.0	13.2

Notes:

Figures may not add due to rounding.

1. Small establishments have fewer than 100 employees. Medium-sized establishments have 100 to 499 employees. Large establishments have 500 or more employees.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.25
Client Base Distribution of Environmental Revenues, 1996 and 1997

Client Base	1996	1997
	percent	
Individuals (households)	4.3	4.4
Local government	20.6	19.7
Provincial government	5.7	6.7
Federal government	3.8	3.7
International financing institutions	0.7	0.5
Fish and fish products industry	0.7	0.7
Forestry and forest products industry	11.1	10.4
Agriculture and agricultural products industry	1.8	2.0
Mining, energy and related products industry	11.2	11.0
Chemical industry	3.0	2.7
Tourism industry	0.2	0.1
Other manufacturing industries	8.9	9.7
All other industries	28.0	28.4
Total	100.0	100.0

Note:

Figures may not add due to rounding.

These estimates were based on reported data from the *Environment Industry Survey, 1996 and 1997*.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.26
Client Location by Province and Territory, 1996

Province/Territory	Client location				Total (a+b+c)
	Within the province (a)	Other provinces (b)	Total domestic market (a+b)	Outside Canada (c)	
	percent				
Newfoundland	93.1	5.1	98.2	1.8	100.0
Prince Edward Island	x	x	x	x	100.0
Nova Scotia	79.5	19.4	98.9	1.1	100.0
New Brunswick	49.9	42.6	92.5	7.5	100.0
Quebec	75.2	20.5	95.7	4.3	100.0
Ontario	62.3	27.2	89.5	10.5	100.0
Manitoba	52.1	45.4	97.5	2.5	100.0
Saskatchewan	85.4	10.5	95.9	4.1	100.0
Alberta	72.4	24.5	96.9	3.1	100.0
British Columbia	77.0	19.1	96.1	3.9	100.0
Yukon and Northwest Territories	x	x	x	x	100.0
Canada	...	...	93.0	7.0	100.0

Notes:

Figures may not add due to rounding.

These estimates were based on reported data from the *Environment Industry Survey, 1996 and 1997*.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.27
Client Location by Province and Territory, 1997

Province/Territory	Client location				Total (a+b+c)
	Within the province (a)	Other provinces (b)	Total domestic market (a+b)	Outside Canada (c)	
	percent				
Newfoundland	92.7	5.1	97.8	2.2	100.0
Prince Edward Island	x	x	x	x	100.0
Nova Scotia	79.1	19.3	98.4	1.6	100.0
New Brunswick	49.8	42.4	92.2	7.8	100.0
Quebec	75.4	20.6	96.0	4.0	100.0
Ontario	61.2	26.7	87.9	12.1	100.0
Manitoba	53.1	46.2	99.3	0.7	100.0
Saskatchewan	84.2	10.4	94.6	5.4	100.0
Alberta	72.2	24.5	96.7	3.3	100.0
British Columbia	75.6	18.8	94.4	5.6	100.0
Yukon and Northwest Territories	x	x	x	x	100.0
Canada	...	...	92.2	7.8	100.0

Note:

Figures may not add due to rounding.

These estimates were based on reported data from the *Environment Industry Survey, 1996 and 1997*.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.28
Total supply of the environment industry, 1996 and 1997

Category of supplier	1996	1997
	million dollars	
Business sales	11 013	11 477
Business own account	2 148	2 062
Government	5 286	5 377
Imports	2 142	2 477
Total	20 589	21 393

Note:

Figures may not add due to rounding.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.29
Exports by Industry and by Destination, 1996

Industry	Environmental exports										Share of total environmental revenues percent	
	Total environmental revenues	United States	South America	Mexico	Other Central America	Europe	Middle East/Africa	Asia	All Other	Total environmental export revenues		
	million dollars											
Services related to agriculture and to mining	39.9	x	x	x	x	x	x	x	x	x	x	x
Other primary industries	31.8	x	x	x	x	x	x	x	x	x	x	x
Rubber	10.5	x	x	x	x	x	x	x	x	x	x	x
Plastic	121.5	x	--	--	--	--	--	--	--	--	23.2	19.1
Textile products	15.5	0.2	-	--	-	--	-	-	--	--	0.2	1.3
Wood	10.8	x	x	x	x	x	x	x	x	x	x	x
Primary metals	92.2	x	x	x	x	x	x	x	x	x	x	x
Fabricated metals	267.9	13.1	x	--	--	x	x	1.3	-	-	66.9	25.0
Machinery	464.2	111.3	8.8	1.0	x	16.1	2.1	9.1	x	x	162.2	34.9
Transportation equipment	64.4	36.4	x	x	--	x	--	x	x	x	38.7	60.1
Electrical and electronic products	40.3	2.0	x	-	-	x	--	0.5	x	-	5.6	13.9
Non-metallic minerals	93.9	x	-	-	x	--	-	-	-	-	5.2	5.5
Chemical and chemical products	124.6	16.5	--	-	-	1.7	-	0.1	--	--	18.4	14.8
Other manufacturing	133.2	30.9	1.4	x	--	15.9	x	6.3	0.2	-	55.9	42.0
Rest of manufacturing sector	32.0	x	x	x	x	x	x	x	x	x	x	x
Construction: building	45.0	x	x	x	x	x	x	x	x	x	x	x
Construction: engineering ¹	1 367.3	..	..	..	..	..	..	..	..	..	..	..
Construction: trade contracting	115.9	1.0	--	--	--	--	x	x	x	x	4.5	3.9
Transportation	13.8	-	-	-	-	-	-	-	-	-	-	-
Other utility industry	225.2	30.5	x	x	-	1.3	-	3.2	0.4	-	35.5	15.8
Waste management industry	2 662.1	..	..	..	..	..	..	..	..	..	..	..
Wholesale trade: hardware, plumbing, heating	30.4	x	x	x	x	x	x	x	x	x	x	x
Wholesale trade: machinery and equipment	311.6	26.6	x	x	--	x	x	20.0	x	-	93.2	29.9
Wholesale trade: other (including scrap materials) ²	3 131.7	..	..	..	..	..	..	..	..	..	..	..
Retail trade	1.2	-	-	-	-	-	-	-	-	-	-	-
Finance and insurance	63.8	x	1.0	x	x	x	x	x	x	x	11.6	18.2
Business services:												
Computer and related services	33.3	7.0	x	0.1	--	3.3	x	1.5	x	-	15.5	46.5
Accounting and bookkeeping	40.0	x	x	x	x	x	x	x	x	x	x	x
Architectural services	1.9	-	-	-	-	-	-	-	-	-	-	-
Consulting engineering	861.3	20.1	13.6	1.5	0.8	4.0	12.1	10.4	1.4	-	63.9	7.4
Scientific and technical services	347.6	25.7	2.1	x	x	1.5	0.3	7.6	0.7	-	38.5	11.1
Lawyers	38.8	x	-	-	-	x	-	-	-	-	0.2	0.5
Management consulting	90.3	5.8	3.7	-	-	3.1	x	x	1.2	-	18.4	20.4
All other business services	39.0	x	x	x	x	x	x	x	x	x	x	x
Health and social services	6.6	0.2	-	-	-	x	-	-	x	-	0.6	9.1
Other services ³	43.4	x	x	x	x	x	x	x	x	x	x	x
Canada	11 012.9	442.9	68.2	13.1	2.2	113.7	30.8	69.5	27.8		768.3	7.0

Notes:

Figures may not add due to rounding.

1. These data were derived from demand-side estimates of environmental protection expenditures.

2. Wholesale trade: other mainly consists of scrap/waste material industries. Wholesale trade: other includes petroleum products (SIC 51), food, beverage, drug and tobacco (SIC 52), apparel and dry goods (SIC 53), household goods (SIC 54), motor vehicle, parts and accessories (SIC 55), automobile wrecking (SIC 5911), other waste materials (SIC 5919), other paper and paper products (SIC 5929), industrial and household chemicals (SIC 5971), general merchandise (SIC 5981), and other products, not elsewhere classified (SIC 5999).

3. Includes rental of machinery and equipment industry.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.30
Exports by Industry and by Destination, 1997

Industry	Total environmental revenues	Environmental exports								Total environmental export revenues	Share of total environmental revenues percent
		United States	South America	Mexico	Other		Middle		All Other		
					Central America	Europe	East/ Africa	Asia			
		million dollars									
Services related to agriculture and to mining	45.5	0.4	--	-	-	x	x	-	x	4.3	9.4
Other primary industries	36.5	x	x	x	x	x	x	x	x	x	x
Rubber	19.7	x	x	x	x	x	x	x	x	x	x
Plastic	143.1	30.5	--	--	--	x	x	x	--	32.6	22.8
Textile products	16.5	0.3	-	-	-	--	-	-	-	0.3	1.8
Wood	12.6	x	x	x	x	x	x	x	x	x	x
Primary metals	92.8	x	x	x	x	x	x	x	x	x	x
Fabricated metals	278.0	22.4	x	--	x	x	x	0.5	--	79.9	28.7
Machinery	476.1	134.1	5.1	1.1	0.7	23.5	4.0	8.5	8.3	185.3	38.9
Transportation equipment	56.3	29.9	x	x	--	x	--	x	x	32.0	56.8
Electrical and electronic products	44.1	2.3	x	--	x	0.8	--	x	--	7.0	15.9
Non-metallic minerals	104.0	x	-	-	x	--	-	-	-	9.5	9.1
Chemical and chemical products	138.3	22.0	x	-	-	1.5	-	x	x	24.0	17.4
Other manufacturing	136.2	30.4	1.6	1.1	-	16.5	0.2	6.0	0.4	56.3	41.3
Rest of manufacturing sector	33.6	x	x	x	x	x	x	x	x	x	x
Construction: building	47.3	x	x	x	x	x	x	x	x	x	x
Construction: engineering ¹	1 307.6	..	..	..	..	..	..	..	..	..	..
Construction: trade contracting	110.3	0.6	--	x	--	--	3.2	x	--	4.3	3.9
Transportation	13.5	-	-	-	-	-	-	-	-	-	-
Other utility industry	220.4	32.0	0.2	x	-	1.0	x	3.3	0.3	39.3	17.8
Waste management industry	2 715.3	..	..	..	..	..	..	..	..	..	..
Wholesale trade: hardware, plumbing, heating	30.7	x	x	-	-	--	-	--	-	2.2	7.2
Wholesale trade: machinery and equipment	329.0	28.2	x	x	--	x	x	13.4	x	92.2	28.0
Wholesale trade: other (including scrap materials) ²	3 244.3	..	..	..	..	..	..	..	..	..	..
Retail trade	2.2	x	x	x	x	x	x	x	x	x	x
Finance and insurance	64.4	x	1.2	0.6	--	x	x	0.8	x	11.6	18.0
Business services:											
Computer and related services	37.1	8.2	x	x	x	3.5	0.9	1.8	x	18.3	49.3
Accounting and bookkeeping	40.1	x	x	x	x	x	x	x	x	x	x
Architectural services	1.8	-	-	-	-	-	-	-	-	-	-
Consulting engineering	1 008.4	54.6	18.6	2.0	0.1	5.1	12.9	11.1	1.8	106.2	10.5
Scientific and technical services	430.6	24.4	2.7	0.2	x	2.0	x	6.8	x	38.0	8.8
Lawyers	40.3	x	-	-	-	x	-	-	x	0.4	1.0
Management consulting	101.1	3.6	2.1	--	x	0.8	x	1.2	0.8	12.1	12.0
All other business services	45.7	0.6	x	--	-	--	-	--	x	1.1	2.4
Health and social services	7.0	0.3	x	-	-	x	-	-	--	0.5	7.1
Other services ³	46.1	x	x	x	x	x	x	x	x	x	x
Canada	11 476.6	549.9	70.3	13.7	2.6	140.3	40.2	63.4	17.9	898.2	7.8

Notes:

Figures may not add due to rounding.

1. These data were derived from demand-side estimates of environmental protection expenditures.

2. Wholesale trade: other mainly consists of scrap/waste material industries. Wholesale trade: other includes petroleum products (SIC 51), food, beverage, drug and tobacco (SIC 52), apparel and dry goods (SIC 53), household goods (SIC 54), motor vehicle, parts and accessories (SIC 55), automobile wrecking (SIC 5911), other waste materials (SIC 5919), other paper and paper products (SIC 5929), industrial and household chemicals (SIC 5971), general merchandise (SIC 5981), and other products, not elsewhere classified (SIC 5999).

3. Includes rental of machinery and equipment industry.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.31
Exports by Province and by Destination, 1996

Province/Territory	Total environmental revenues	Environmental exports								Total environmental export revenues	Share of total environmental revenues percent
		United States	South America	Mexico	Other		Middle		All Other		
					Central America	Europe	East/ Africa	Asia			
		million dollars									
Newfoundland	103.8	x	x	x	-	x	x	-	x	1.8	1.7
Prince Edward Island	34.4	x	x	x	x	x	x	x	x	x	x
Nova Scotia	223.3	1.3	0.2	x	x	x	x	x	x	2.6	1.2
New Brunswick	211.8	12.9	x	x	x	0.4	x	x	x	15.9	7.5
Quebec	2 516.3	74.3	3.3	1.5	x	8.7	7.3	x	x	108.1	4.3
Ontario	5 204.3	290.7	59.6	10.8	0.7	99.7	17.9	43.6	24.0	547.0	10.5
Manitoba	303.0	7.2	x	x	-	-	-	-	-	7.7	2.5
Saskatchewan	167.7	5.3	x	x	x	x	0.2	-	x	6.9	4.1
Alberta	1 085.4	24.8	1.4	x	x	1.1	3.0	2.4	x	33.3	3.1
British Columbia	1 145.8	26.2	2.3	x	x	2.7	0.7	9.6	2.8	44.7	3.9
Yukon and Northwest Territories	17.0	x	x	x	x	x	x	x	x	x	x
Canada	11 012.9	442.9	68.2	13.1	2.2	113.7	30.8	69.5	27.8	768.3	7.0

Note:

Figures may not add due to rounding.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.32
Exports by Province and by Destination, 1997

Province/Territory	Total environmental revenues	Environmental exports								Total environmental export revenues	Share of total environmental revenues percent
		United States	South America	Mexico	Other		Middle		All Other		
					Central America	Europe	East/ Africa	Asia			
		million dollars									
Newfoundland	105.9	x	x	x	-	0.5	x	--	x	2.3	2.2
Prince Edward Island	32.6	x	x	x	x	x	x	x	x	x	x
Nova Scotia	245.4	1.8	0.4	x	--	0.7	x	0.5	-	3.9	1.6
New Brunswick	222.4	14.2	x	x	--	0.4	x	x	x	17.3	7.8
Quebec	2 511.0	68.2	5.3	2.8	x	8.6	8.3	x	x	100.5	4.0
Ontario	5 373.1	381.2	55.4	9.6	0.9	124.6	24.9	41.3	14.7	652.4	12.1
Manitoba	300.4	1.5	x	x	-	-	-	-	-	2.0	0.7
Saskatchewan	185.4	8.3	x	--	--	x	0.3	--	x	10.1	5.4
Alberta	1 253.3	31.0	1.7	x	x	1.1	3.9	2.3	-	41.1	3.3
British Columbia	1 229.7	43.4	6.3	0.1	0.8	3.4	0.7	11.6	2.2	68.4	5.6
Yukon and Northwest Territories	17.4	x	x	x	x	x	x	x	x	x	x
Canada	11 476.6	549.9	70.3	13.7	2.6	140.3	40.2	63.4	17.9	898.2	7.8

Note:

Figures may not add due to rounding.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.33
Exports by Establishment Size and by Destination, 1996

Establishment size	Environmental exports										Share of total environmental revenues percent
	Total environmental revenues	United States	South America	Mexico	Other Central America	Europe	Middle East/ Africa	Asia	All Other	Total environmental export revenues	
	million dollars										
0-4	805.2	2.7	7.6	0.1	--	0.3	0.1	0.1	0.2	11.1	1.4
5-9	555.1	11.5	0.2	x	x	1.0	0.0	1.4	x	15.0	2.7
10-24	1 893.4	48.8	1.7	1.3	0.9	7.4	3.6	8.8	2.8	75.3	4.0
25-49	1 618.0	83.5	5.0	0.8	0.1	8.2	5.7	x	x	125.4	7.8
50-99	1 756.6	118.0	6.3	0.6	x	9.4	x	12.9	x	150.2	8.6
100-499	3 298.2	163.6	13.9	9.4	x	62.7	8.7	37.3	x	306.1	9.3
500-999	432.1	x	x	x	x	x	x	x	x	x	x
>999	654.3	x	x	x	x	x	x	x	x	x	x
Canada	11 012.9	442.9	68.2	13.1	2.2	113.7	30.8	69.5	27.8	768.3	7.0

Note:

Figures may not add due to rounding.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Table A.34
Exports by Establishment Size and by Destination, 1997

Establishment size	Environmental exports										Share of total environmental revenues percent
	Total environmental revenues	United States	South America	Mexico	Other Central America	Europe	Middle East/ Africa	Asia	All Other	Total environmental export revenues	
	million dollars										
0-4	830.2	2.8	7.6	0.1	--	0.3	0.6	0.2	0.2	11.7	1.4
5-9	599.3	15.9	0.8	x	x	3.1	1.2	2.2	x	23.9	4.0
10-24	1 881.5	39.6	2.5	1.2	1.2	4.7	5.6	7.3	1.9	64.0	3.4
25-49	1 677.2	80.5	7.1	1.0	1.0	8.2	6.8	12.3	1.5	118.3	7.1
50-99	1 931.3	164.8	5.0	3.4	x	17.0	x	12.0	x	212.1	11.0
100-499	3 327.0	203.9	17.7	6.8	x	72.5	8.3	25.8	x	343.2	10.3
500-999	492.2	x	x	x	x	x	x	x	x	x	x
>999	738.0	x	x	x	x	x	x	x	x	x	x
Canada	11 476.6	549.9	70.3	13.7	2.6	140.3	40.2	63.4	17.9	898.2	7.8

Note:

Figures may not add due to rounding.

Source:

Statistics Canada, Environment Accounts and Statistics Division.

Annex B: Questionnaires



National Accounts and Environment Division

Environment Industry Survey, 1996 and 1997

Confidential when completed
Collected under authority of Statistics Act, Revised Statutes of Canada, 1985, Chapter S19.

Français au verso

Correct as required

Establishment Name

Operating Name

C/O

Street Address

City

Province/Territory

Postal Code



Please read before completing

SURVEY OBJECTIVE

This survey measures the size of the Canadian Environment Industry and the types of products and services provided by the industry.

The results of this survey will be combined with other government surveys to form a complete picture of the Canadian Environment Industry.

CONFIDENTIALITY

Statistics Canada is prohibited by law from publishing any statistics which would divulge information obtained from this survey that relates to any identifiable business, without the previous written consent of that business. The data reported will be treated in strict confidence, used for statistical purposes and published in aggregate form only. The confidentiality provisions of the Statistics Act are not affected by either the Access to Information Act or any other legislation.

INFORMATION

Important: Please read the definitions and instructions listed below before answering.

If you require assistance in completing this questionnaire or if you have any questions or comments regarding this survey, please contact:

Operations and Integration Division

Statistics Canada

Ottawa, Ontario K1A 0T6

Telephone (toll-free): **1-800-387-0479**

Fax: **1-613-951-0709**

Email: **enviro.oid.ind@statcan.ca**

In all correspondence concerning this questionnaire, please quote the identification number that appears on the address label.

Please return this questionnaire within 60 days of receipt.

If you are unable to do so, kindly inform Operations and Integration Division of the expected completion date.

Definitions

What is the Environment Industry?

For the purposes of this survey, the Environment Industry includes all companies operating in Canada that are involved in whole or in part in the production of environmental products, the provision of environmental services and the undertaking of environment-related construction activities.

The Environment Industry consists of activities which produce goods and services that are used or can potentially be used, to measure, prevent, limit or correct environmental damage (both natural or by human activity) to water, air, soil as well as problems related to waste, noise and ecosystems. The Industry also includes clean technologies and related components which reduce environmental risk, and minimise pollution, material use and energy.

1a. Reporting year.

Report must cover your most recent financial years between **April 1, 1996** and **March 31, 1998**. Preliminary estimates for 1997 are acceptable.

From

Day	Month	Year
010	020	030
<input type="text"/>	<input type="text"/>	<input type="text"/>

to

Day	Month	Year
040	050	060
<input type="text"/>	<input type="text"/>	<input type="text"/>

Statistics Canada use only

Rec.	<input type="text"/>	<input type="text"/>	<input type="text"/>
	D	M	Y

Ed.	<input type="text"/>	<input type="text"/>	<input type="text"/>
	D	M	Y

Kyd.	<input type="text"/>	<input type="text"/>	<input type="text"/>
	D	M	Y

Bat.	<input type="text"/>	<input type="text"/>	<input type="text"/>
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Coll.	<input type="text"/>
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FSC	<input type="text"/>
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General Instructions

1. Please complete and return this form in the envelope provided.
2. If your company is involved in a combination of environmental activities (producing environmental goods, providing environmental services or undertaking environment-related construction), please ensure that the relevant portion(s) of Section A are completed.
3. Reasonably accurate estimates are acceptable. For the year 1997, preliminary estimates are acceptable.
4. **Please report all amounts in Canadian dollars.**

SECTION A - Company Revenues and Classification

	1996 \$000	1997 \$000
A1. What are your company's total revenues?	101	103
A2. Of your company's total revenues reported in A1, please indicate the environmental portion.	102	104

Classification

The purpose of this section is to measure the revenues generated by your organisation by type of products or services provided. Please classify your activities into the appropriate category(ies), **using the examples provided on the Classification Details insert enclosed with this form.** If your organization does not record revenues by type of activity, please provide your best estimates.

Environmental Goods

A3. Did this company ship environmental goods in 1996 and 1997?

¹⁰⁵ Yes ¹⁰⁶ No ➤ *Go to question A7.*

A4. Please indicated the value of your company's 1996 and 1997 shipments of environmental goods including installation, where applicable. If your company's shipments do not fall in any stated category, please use the 'other, specify' category.

Includes the production of equipment, technology and specific materials for:

1. Air Pollution Control
2. Water Supply and Conservation
3. Wastewater Treatment
4. Solid and Hazardous Waste Management
5. Remediation/Treatment of Soil and Groundwater
6. Noise/Vibration Abatement
7. Environmental Monitoring, Analysis and Assessment
8. Energy Efficient Products
9. Renewable Energy and Alternative Fuel Systems
10. Other Products (*see "Classification Details" Insert*)
11. Other, *specify* ¹³¹ |

	1996 \$000	1997 \$000
107		119
108		120
109		121
110		122
111		123
112		124
113		125
114		126
115		127
116		128
117		129
Total Environmental Goods	118	130

A5. Is this company a reseller or distributor?

¹³² Yes ¹³³ No

A6. Of the total reported in A4, what percentage were goods purchased for resale?

	1996 %	1997 %
134		135

Environmental Services

A7. Did this company provide environmental services in 1996 and 1997?

¹³⁶ Yes

¹³⁷ No ➤ Go to question A9.

A8. Please indicate your company's 1996 and 1997 environmental revenues from environmental services, where applicable. If your company's activities do not fall in any stated category, please use the 'other specify' category.

Environmental services includes the provision of services for:	1996 \$000	1997 \$000
12. Air Pollution Control	138	151
13. Water Supply and Conservation	139	152
14. Wastewater Management	140	153
15. Solid and Hazardous Waste Management	141	154
16. Remediation/Treatment of Soil and Groundwater	142	155
17. Noise/Vibration Abatement	143	156
18. Environmental Contracting and Engineering (<i>not included elsewhere</i>)	144	157
19. Environmental Research and Development	145	158
20. Analytical Services, Data Collection and Analysis	146	159
21. Environmental Education and Training, Information	147	160
22. Energy Efficiency and Renewable Energy	148	161
23. Other Services (<i>see "Classification Details" Insert</i>)	149	162
24. Other, <i>specify</i> ¹⁶⁴	150	163

Construction

A9. Did this company provide environment-related construction services in 1996 and 1997?

¹⁶⁵ Yes

¹⁶⁶ No ➤ Go to question Section B.

A10. Please indicate your company's 1996 and 1997 environmental revenues from environment-related construction services including repair and maintenance. If your company's activities do not fall in any stated category, please use the 'other specify' category.

Environment-related construction includes the provision of construction for:	1996 \$000	1997 \$000
25. Air Pollution Control	167	175
26. Water Supply and Conservation	168	176
27. Wastewater Management	169	177
28. Solid and Hazardous Waste Management	170	178
29. Remediation/Cleanup of Soil and Water	171	179
30. Noise/Vibration Abatement	172	180
31. Other Services (<i>see "Classification Details" Insert</i>)	173	181
32. Other, <i>specify</i> ¹⁸³	174	182

SECTION B - Environmental Revenues

B1. In 1996 and 1997, for the environmental activities conducted by your company, please indicate your environmental revenues (reported in question A2) according to the following client base breakdown.

	1996 \$000	1997 \$000
Individuals (households)	184	197
Municipal Government	185	198
Provincial/State Government	186	199
Federal Government	187	200
International Financing Institutions (IFI's)	188	201
Fish and Fish Products Industry	189	202
Forestry and Forest Products Industry	190	203
Agriculture and Agricultural Products Industry	191	204
Mining, Energy, and Related Products Industry	192	205
Chemical Industry	193	206
Tourism Industry	194	207
Other Manufacturing	195	208
Other Industry	196	209

B2. In 1996 and 1997, for the environmental activities conducted by your company, please indicate your environmental revenues according to the following customer location breakdown.

	1996 \$000	1997 \$000
Newfoundland	210	222
Prince Edward Island	211	223
Nova Scotia	212	224
New Brunswick	213	225
Quebec	214	226
Ontario	215	227
Manitoba	216	228
Saskatchewan	217	229
Alberta	218	230
British Columbia	219	231
Northwest Territories	220	232
Yukon	221	233

SECTION C - Exports			SECTION D - Expenditures		
Export Revenue			Operating Expenses		
C1. Of the environmental revenues reported in Question A2, how much was generated outside of Canada?	1996 \$000	1997 \$000	D1. Please report this company's, operating expenses for 1996 and 1997.		
	234	235	1996 \$000	1997 \$000	
Export by Region			Wages, salaries and employee benefits		
C2. Please provide a breakdown of your Export Revenue (Question C1), by region.	1996 \$000	1997 \$000	267	274	
	236	250	Training and education		
United States	237	251	268	275	
Brazil	238	252	Research & Development		
Chile	239	253	269	276	
Other South America	240	254	Marketing/sales		
Mexico	241	255	270	277	
Central America (excluding Mexico)	242	256	Cost of environment goods sold/purchased for resale		
Eastern Europe/ Commonwealth of Independent States	243	257	271	278	
Western Europe	244	258	Cost of environment goods sold/purchased for resale		
Middle East/Africa	245	259	272	279	
China	246	260	Other operating expenses, including depreciation		
India	247	261	273	280	
Japan	248	262	Total operating expenditures		
South East Asia (Includes: Indonesia, Malaysia, Singapore, Thailand, Vietnam, Philippines, Korea and Taiwan)	249	263			
Other foreign (specify)	264				
Anticipated Revenues			Capital Expenditures		
C3. What are your anticipated environmental revenues for the year 2000?	\$000		D2. In 1996 and 1997, what were this company's capital expenditures? Include new assets purchased in Canada and all imported assets (both new and used).		
	265		1996 \$000	1997 \$000	
C4. Of the environmental revenues reported in C3, how much will be generated outside of Canada?	\$000		281	288	
	266		Research & Development		
			282	289	
			Buildings		
			283	290	
			Vehicles		
			284	291	
			All other machinery and equipment		
			285	292	
			Construction of facilities (excluding residences)		
			286	293	
			Maintenance and repairs of new and used assets		
			287	294	
			Other (specify)		
			295		

SECTION E - Employment

Total Employment

E1. Please report the usual number of persons employed during the reporting periods to whom you paid salaries and wages as shown in question D1.

	1996 Number	1997 Number
Full-time Employees - Regular employees who worked the standard work week as observed by the business	296	299
Part-time Employees - Those who worked regularly but for fewer than the standard work week hours observed by the business	297	300
Contract employees - Engaged only for the duration of a specific project or term	298	301

Environmental Employment


E2. Please report employees who spend time on environmental activities by the following categories (do not include contract employees). Please report each employee only once, allocating each by the category most relevant to their employment duties.

	1996 Number	1997 Number
Administration (senior management, accounting, reception, clerical staff etc.)	302	308
Marketing and Sales Representatives	303	309
Direct Labour involved in manufacturing or providing services (assemblers, operators, lab technicians, field workers etc.)	304	310
Support Personnel (shipping, receiving, stores, material handling, repair and maintenance, first-line supervision, etc.)	305	311
Research and product/service development	306	312
Quality assurance, quality control, customer service and warranty (including inspectors)	307	313

SECTION F - Certification and Comments

Certification

I certify that to the best of my knowledge, the information provided in this questionnaire is correct and complete.

Signature 		Date Day Month Year <table border="1" data-bbox="982 331 1369 384"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> </table>												
Name of person completing this questionnaire (type or print)		Telephone <table border="1" data-bbox="982 443 1497 495"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> </table>												
Title		Fax <table border="1" data-bbox="982 554 1497 606"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> </table>												
Year Company Established	Ownership Content: Canadian Ownership _____ %	Email Address												

Comments

If you have any questions, please contact us.
Telephone (toll free) 1-800-387-0479
Fax: (613) 951-0709
Email: enviro.oid.ind@statcan.ca

Please return this questionnaire in the envelope provided

Thank you for your cooperation !



National Accounts and Environment Division

**Environment Industry Survey,
1996 and 1997**

Français au verso

Classification Details



Section A. Company Revenues and Classification

This survey targets establishments engaged in the provision of a) environmental goods, b) environmental services, and c) environment-related construction services. Following are examples for each of the classifications listed in Section A.

a) Environmental Goods

1. Air Pollution Control - air handling equipment; catalytic converters; chemical recovery systems, dust collectors, separators/precipitators; incinerators, scrubbers; odour control equipment.
2. Water Supply and Conservation - potable water; water handling goods and equipment (pumps, pipes, valves); water conservation products (low flow toilets, shower heads).
3. Wastewater Treatment - aeration systems; chemical recovery systems; biological recovery systems; gravity sediment systems; oil/water separation systems; screens/strainers; sewage treatment; water pollution control, wastewater reuse equipment; water treatment chemicals; water treatment equipment; clarifiers, filters and filter media; water purification equipment.
4. Solid and Hazardous Waste Management - hazardous waste storage/treatment equipment; waste collection equipment; waste disposal equipment; waste handling equipment; waste separation equipment; recycling equipment; incineration equipment.
5. Remediation/Treatment of Soil and Groundwater - absorbents; bioremediation equipment; soil vapour extraction equipment; spill equipment; containment systems.
6. Noise/Vibration Abatement - mufflers/silencers; noise deadening equipment; vibration control systems; highway barriers.
7. Environmental Monitoring, Analysis and Assessment - measuring and monitoring equipment; sampling systems; process and control equipment; data acquisition equipment; other instruments/ machines; software.
8. Energy Efficient Products - energy management equipment; energy recovery equipment; alternate energy systems and equipment; insulation and sealing products; energy efficient lighting, motors, etc.;
9. Renewable Energy and Alternative Fuel Systems - renewable energy systems and equipment (solar, wind, tidal, geothermal); alternative fuel systems and equipment.
10. Other Products - components of cleaner technologies.
11. Other, *specify* - please specify your goods if they are not listed in the preceding categories.

4-2200-51.5: 1997-08-21 STC/NAD-291-75084



Statistics Canada
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Canada

b) Environmental Services

12. Air Pollution Control - emission monitoring; assessment/evaluation, planning.
13. Water Supply and Conservation - water purification; water delivery; water handling systems.
14. Wastewater Management - sewage treatment systems; wastewater reuse systems; operation of water treatment facilities; storm water management; water and wastewater system assessment and design consulting.
15. Solid and Hazardous Waste Management - emergency response and spills cleanup; water handling, collection, transport, transfer stations and disposal; operation of sites, ownership/management of sites; recycling (sorting, baling, cleaning); operation of recycling plants (materials recovery facilities); hazardous waste management; medical waste management; nuclear waste management.
16. Remediation/Treatment of Soil and Groundwater - cleanup; industrial services (cleaning for facilities and tanks); groundwater monitoring and remediation services; soil remediation services; hydrogeological services; site reclamation and remedial action services.
17. Noise/Vibration Abatement - assessment/monitoring.
18. Environmental Contracting and Engineering - engineering design, specifications, project management; biological and ecosystems studies; environment impact assessment, audits; water treatment; environmental management planning; risk and hazard assessment; laboratory and field services; environmental economics
19. Environmental Research and Development - clean processes; end of pipe pollution abatement control
20. Analytical Services, Data Collection and Analysis - measuring and monitoring; sampling; process and control; data acquisition.
21. Environmental Education and Training, Information - environmental education and training; environmental information searching services; environmental data management and analysis; ISO 9000/14000 support services.
22. Energy Efficiency and Renewable Energy - energy audit; energy resource management; energy service companies; alternative energy system design; renewable energy services (site assessment, project development, installation); renewable energy production (solar, wind, tidal, geothermal, other).
23. Other Services - conservation and resource management; environmental public relations; environmental law; environmental risk management and liability insurance; marketing and advertising; business development services; emergency response planning; full-cost accounting services; public/private partnership development.
24. Other, *specify* - please specify your services if they are not listed in the preceding categories.

c) Environment-related construction services

25. Air Pollution Control
26. Water Supply and Conservation
27. Wastewater Management - sewer systems; water treatment plants.
28. Solid and Hazardous Waste Management - hazardous waste management; solid waste treatment, storage and disposal; recycling.
29. Remediation/Cleanup of Soil and Water
30. Noise/Vibration Abatement - highway barriers.
31. Other Services - renewable energy (solar, wind, tidal, thermal, other); conservation (soil, water, wildlife, habitat); environmental management systems (forest management etc.).
32. Other, *specify* - please specify your construction services if they are not listed in the preceding categories.