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2009



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Note of appreciation

Canada owes the success of its statistical system to a long standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

User information

Symbols

The following standard symbols are used in Statistics Canada publications:

- . not available for any reference period
- .. not available for a specific reference period
- ... not applicable
- 0 true zero or a value rounded to zero
- 0^s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
- p preliminary
- r revised
- x suppressed to meet the confidentiality requirements of the *Statistics Act*
- E use with caution
- F too unreliable to be published

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Who we are and what we do

Statistics Canada has been producing environment statistics since the mid-1970s. Since then, the environment statistics program has evolved to what is now known as Environment Accounts and Statistics Division (EASD), which is part of the broader System of National Accounts.

Our mandate is to collect, develop, compile, analyze and publish environmental data, emphasizing their integration with socio-economic data. Our objective is to provide users in government, business and the public at large with consistent, comprehensive, timely and relevant statistics with which to study the relationship between the environment and human activity.

We do this through four main activities:

- Integration of environmental data (both those collected within and outside of Statistics Canada) with socio-economic data in the form of consistent, comprehensive databases that employ a variety of organizational frameworks;
- Collection of environmental data directly from businesses, households and governments through on-going and occasional surveys;
- Dissemination of environmental statistics through a variety of catalogued products presenting descriptive analysis and statistics in print format and in electronic format; and
- Research and development related to environmental statistics.

Our statistical program comprises four major elements:

- Environmental accounts and indicators;
- Environmental surveys;
- Spatial data infrastructure;
- Statistical reference compendium (Human Activity and the Environment).

To contact us:

For general inquiries and questions about our products and services, please call the Information Officer (613-951-0297), fax (613-951-0634) or email environ@statcan.gc.ca.

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Enviro quick facts

The following data, highlighting the interaction between humans and the environment, come from selected Environment Accounts and Statistics Division publications.

Human Activity and the Environment, 2007 and 2008

- Canada's greenhouse gas emissions increased 25% between 1990 and 2005.
- The amount of greenhouse gas emitted per unit of economic activity decreased by 18% from 1990 to 2005, while energy use increased by 23%.
- The production of goods and services for export accounted for 76% of the increase in domestic industrial emissions in Canada, from 1990 to 2003.

EnviroStats, 2008

- In 2006, almost 7 in 10 households with programmable thermostats and 46% of households without programmable thermostats lowered the temperature of their home while they slept.
- Households with higher incomes were more likely to drink bottled water in 2006, while households with at least one member who was university educated were less likely to drink bottled water.
- Households were either directly or indirectly responsible for almost half of Canada's total greenhouse gas (GHG) emissions in 2004. Overall emissions related to households increased 13% from about 285,900 kilotonnes in 1990 to 321,700 kilotonnes in 2004.

Waste Management Industry Survey: Business and Government Sectors, 2006

- In 2006, the waste management industry handled 35 million metric tonnes of waste. Of this total, the amount sent for disposal reached just over 27 million tonnes, while the remainder, almost 8 million tonnes, was sent for recycling or composting.
- From 2004 to 2006, residential waste disposal increased 3% to 9.2 million tonnes and non-residential waste disposal increased 11% to 18.0 million tonnes.
- Waste diversion through recycling and composting increased 9% from 2004 to 2006. Organic materials, such as food and yard waste, experienced the largest increase, at 32%.

Survey of Environmental Protection Expenditures, 2006

- Businesses operating in Canada spent \$8.6 billion in 2006 to protect the environment. The largest share of these expenditures was spent to deal with pollutants after they were created.
- The oil and gas extraction industry spent more on environmental protection than any other industry, accounting for almost one-third of total expenditures. Provincially, Alberta businesses spent the most to protect the environment, once again surpassing Ontario, the largest spender up until 2002.

Households and the Environment Survey, 2007

- More Canadian households are taking advantage of energy-saving devices, such as energy-efficient light bulbs and programmable thermostats. In 2007, 84% reported that they had at least one type of energy-saving light in their home.
- Nationally, 30% of Canadian households reported that they always used recycled or reusable bags or containers when doing their grocery shopping. The highest proportions were in Ontario (35%) and Quebec (33%).

Our accounts, surveys, and products

Environmental accounts

Natural Resource Stock Accounts

Definitions, data sources and methods — record no. 5114

The Natural Resource Stock Accounts measure quantities of natural resources *in situ* (crude oil and bitumen, natural gas, coal, metals, non-metallic minerals, timber and land) and the annual changes in these stocks due to natural processes and human activity.

These accounts, which are recorded using both physical and monetary units, form the basis of the estimates of Canada's natural resource wealth that are included in the National Balance Sheet Accounts. These selected natural resource assets represented over 40% of Canada's national wealth in 2007.

The lengths of the time series presented in the natural resource stock accounts vary with the resource in question. They also depend upon whether the accounts are presented in physical or monetary units—many of the physical accounts begin in 1961, while the value estimates generally begin in the mid-1970s. These long time-series are available on CANSIM and through the System of National Accounts module of Statistics Canada's website.

Material and Energy Flows Accounts

Definitions, data sources and methods — record no. 5115

The purpose of these accounts is to estimate the flows of material and energy within the economy and between the economy and the environment. There are three main components of the Material and Energy Flows Accounts—greenhouse gas emissions, energy use and water use.

Each of these is available by industry, and each account can be integrated with the input-output tables for analytical purposes. Unlike the stock accounts, the Material and Energy Flow Accounts are produced only in physical units of measure. Data are available on CANSIM and through the System of National Accounts module of Statistics Canada's website.

It should be noted that the source data for the water use accounts is no longer available, and as such the last compilation of this account was for the reference year 1996. However, there are plans to re-establish the water use account using data from the new Industrial Water Survey.

Surveys

Waste Management Industry Survey: Business and Government Sectors

Definitions, data sources and methods — record nos. 2009 and 1736

Catalogue no. 16F0023X

The Waste Management Industry Survey: Business and Government Sectors gathers information on the financial characteristics and waste management activities undertaken by companies, local governments and other public waste management bodies. The results of these surveys provide a picture of physical characteristics of waste disposal and recycling as well as financial and employment features of businesses and local governments that provide waste management services.

Households and the Environment Survey

Definitions, data sources and methods — record no. 3881

Catalogue no. 11-526-X

The Households and the Environment Survey (HES) is conducted to measure household behaviours that may affect the environment. The major themes covered by the HES are those of water quality concerns, consumption and conservation of water, household energy use, use of gasoline-powered equipment, the application of pesticides and fertilizers on lawns and gardens, recycling, composting and waste disposal practices, impacts of air and water quality on households, and transportation decisions.

Environment Industry Survey: Business Sector

Definitions, data sources and methods — record no. 1209

Catalogue no. 16F0008X

The purpose of the Environment Industry Survey is to produce estimates of the production of environmental goods and services by industry. The survey collects data on revenues from sales of environmental goods and services and employment related to this production.

Survey of Environmental Protection Expenditures

Definitions, data sources and methods — record no. 1903

Catalogue no. 16F0006X

The Survey of Environmental Protection Expenditures (SEPE) provides a measure of the costs imposed on industry to meet Canadian and international environmental regulations, conventions or voluntary agreements. The survey covers capital and operating expenditures by businesses for environmental protection.

Industrial Water Survey

Definitions, data sources and methods — record no. 5120

Catalogue no. 16-401-X

This survey provides information on the volume of water brought into the facility, including information on the source, purpose, treatment and possible re-circulation of this water, by industrial users. As well, data is collected on the volumes of water discharged and treatment of this discharged water by industrial users. Cost information on the intake and discharge of water is also collected. This survey is being conducted to fulfill the requirements for producing national environmental indicators of water quality.

Agricultural Water Use Survey

Definitions, data sources and methods — record no. 5145

The Agricultural Water Use Survey is conducted to gather information on water use, irrigation methods and practices, and sources and quality of water used for agricultural purposes on Canadian farms.

Survey of Drinking Water Plants

Definitions, data sources and methods — record no. 5149

The Survey of Drinking Water Plants is conducted to provide Canadians with national and regional information related to the production of drinking water. The survey is a census of drinking water plants serving more than 300 people. It asks for information on volumes of water drawn and treated, treatment type, financial aspects of the operation, as well as source and treated water quality.

Analytical publications

Environment accounts and statistics technical paper series

Catalogue no. 16-001-M

The series covers environment accounts and indicators, environmental surveys, spatial environmental information and other research related to environmental statistics. The technical paper series is intended to stimulate discussion on a range of environmental topics.

EnviroStats

Catalogue no. 16-002-X

EnviroStats is a quarterly bulletin providing regular statistical analysis of environmental topics written for a broad audience. At the core of each issue is a feature article on a particular topic. Shorter articles highlight new statistical developments or introduce new concepts. The bulletin also includes data tables on sustainable development indicators and updates on related statistical activities such as upcoming releases and surveys.

Human Activity and the Environment

Catalogue no. 16-201-X

The goal of the annual Human Activity and the Environment (HAE) publication is to paint a statistical portrait of Canada's environment with special emphasis on human activity and its relationship to natural systems—air, water, soil, plants and animals. Each annual issue of HAE begins with a feature article covering a current environmental issue of concern to Canadians. The in-depth article provides data and analysis which complement the information presented in the Annual statistics compendium that follows.

The Annual statistics compendium of the HAE report serves as a general reference for environmental statistics in Canada, pointing readers to available data on environmental-human interactions.

Related products

Selected publications from Environment Accounts and Statistics Division (EASD)

11-526-X	Households and the Environment
16-001-M	Environment Accounts and Statistics Technical Paper Series
16-002-X	EnviroStats
16-201-X	Human Activity and the Environment: Annual Statistics
16-251-X	Canadian Environmental Sustainability Indicators
16-252-X	Canadian Environmental Sustainability Indicators: Highlights
16-253-X	Canadian Environmental Sustainability Indicators: Socio-economic Information
16-254-X	Canadian Environmental Sustainability Indicators: Air Quality Indicators: Data Sources and Methods
16-255-X	Canadian Environmental Sustainability Indicators: Greenhouse Gas Emissions Indicator: Data Sources and Methods
16-256-X	Canadian Environmental Sustainability Indicators: Freshwater Quality Indicator: Data Sources and Methods
16-401-X	Industrial Water Use
16-505-G	Concepts, Sources and Methods of the Canadian System of Environmental and Resource Accounts
16F0002X	Waste Management Industry Survey: Government Sector, 1994
16F0003X	Waste Management Industry Survey: Business Sector, 1995
16F0006P	Environmental Protection Expenditures in the Business Sector, Preliminary Data
16F0006X	Environmental Protection Expenditures in the Business Sector
16F0007X	Environment Industry, 1995, Preliminary Data
16F0008X	Environment Industry: Business Sector
16F0009X	International Trade in Environmental Goods and Services: A Canada - U.S. Comparison
16F0021X	The St. Lawrence River Valley 1998 Ice Storm: Maps and Facts
16F0023X	Waste Management Industry Survey: Business and Government Sectors
16F0024X	Environmental Management and Technologies in the Business Sector

16F0025X	A Geographic Profile of Manure Production in Canada
16M0001X	Households and the Environment Survey: Public Use Microdata File

Selected technical and analytical products from EASD

16-001-M2004001	Measuring Employment in the Environment Industry
16-001-M2005002	Greenhouse Gas Reduction Technologies: Industry Expenditures and Business Opportunities
16-001-M2007003	Behaviour Study on the Water Quality Index of the Canadian Council of Ministers of the Environment
16-001-M2007004	Environment Surveys of Establishments: The Canadian Experience
16-001-M2008005	Canadian Industry's Expenditures to Reduce Greenhouse Gas Emissions
16-001-M2008006	Controlling the Temperature in Canadian Homes
16-002-X200700110174	Recycling in Canada
16-002-X200700110177	Canada's growing population and its environmental influence, 1956 to 2006
16-002-X200700210335	A demand perspective on greenhouse gas emissions
16-002-X200700210336	Canadian lawns and gardens: Where are they the "greenest"?
16-002-X200700210337	Heavy fuel oil consumption in Canada
16-002-X200700210338	The cost of water in the manufacturing sector
16-002-X200700310454	Canada's natural resource wealth at a glance
16-002-X200700310455	Trip chaining while driving - comparing men's and women's behaviour
16-002-X200700310456	Blowing up a storm - snowblowers in Canada
16-002-X200700310457	Population change in Canada's drainage areas
16-002-X200800110541	Agricultural water use in Canada
16-002-X200800110540	Is composting organic waste spreading?
16-002-X200800110539	Disposal of household special wastes
16-002-X200800210625	Canada's ecozones and population change, 1981 to 2006
16-002-X200800210624	The Canadian Environmental Sustainability Indicators: On population-weighted ground-level ozone
16-002-X200800210623	Canadian industry's expenditures to reduce greenhouse gas emissions

16-002-X200800210622	Gone fishing: A profile of recreational fishing in Canada
16-002-X200800210620	Against the flow: Which households drink bottled water?
16-002-X200800310688	Conventional tillage: How conventional is it?
16-002-X200800310686	Who uses water-saving fixtures in the home?
16-002-X200800310684	Thermostat use in Canadian homes
16-002-X200800410753	Energy-efficient holiday lights
16-002-X200800410752	Households' use of water and wastewater services
16-002-X200800410751	A geographical profile of livestock manure production in Canada, 2006
16-002-X200800410750	Canadian participation in an environmentally active lifestyle
16-002-X200800410749	Greenhouse gas emissions: a focus on Canadian households

Selected CANSIM tables from EASD

153-0001	Value of established natural gas reserves, annual
153-0002	Value of established crude oil reserves, annual
153-0003	Value of recoverable subbituminous coal and lignite reserves, annual
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153-0021	Proven and probable gold reserves from gold mines, annual
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153-0042	Materials prepared for recycling, by source, Canada, provinces and territories, bi-annual
153-0043	Materials prepared for recycling, by type, Canada, provinces and territories, bi-annual
153-0044	Business sector characteristics of the waste management industry, Canada, provinces and territories, bi-annual

153-0045	Local government characteristics of the waste management industry, Canada, provinces and territories, bi-annual
153-0046	Direct and indirect household energy use and household greenhouse gas emissions, annual
153-0052	Capital and operating expenditures on environmental protection, by North American Industry Classification System (NAICS) and type of activity, Canada
153-0053	Capital and operating expenditures on environmental protection, by type of activity, Canada, provinces and territories
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153-0055	Distribution of capital expenditures on pollution abatement and control (end-of-pipe) and pollution prevention, by type of environmental medium, Canada, provinces and territories
153-0056	Capital and operating expenditures on environmental protection, by type of activity and establishment size, Canada
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153-0058	Selected agricultural activities, Canada, ecozones and ecoregions with agriculture, every 5 years (square kilometres), 1971 to 2006
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153-0064	Households and the environment survey, use of fertilizer and pesticides, Canada and provinces, every 2 years (percent)
153-0065	Households and the environment survey, awareness of air quality advisories and their influence on behaviours, Canada and provinces, every 2 years (percent)
153-0066	Households and the environment survey, treatment of drinking water, Canada and provinces, every 2 years (percent)

Selected accounts, indicators and surveys from EASD

1209	Environment Industry Survey
1736	Waste Management Industry Survey: Government Sector
1903	Survey of Environmental Protection Expenditures
2009	Waste Management Industry Survey: Business Sector
3881	Households and the Environment Survey
5114	Canadian System of Environmental and Resource Accounts - Natural Resource Stock Accounts
5115	Canadian System of Environmental and Resource Accounts - Material and Energy Flow Accounts
5120	Industrial Water Survey
5127	Air Quality Indicators
5128	Freshwater Quality Indicator
5129	Greenhouse Gas Emissions Indicator
5149	Survey of Drinking Water Plants
5145	Agricultural Water Use Survey (AWUS)
7525	Land Cover Statistics from Natural Resources Canada
8012	Census of Agriculture: Environmental Geography Aggregations of Census Farm Units

Selected summary tables from Statistics Canada

- *Revenues from sales of environmental goods and services, by industry*
- *Revenues from sales of environmental goods and services, by province or territory*
- *Government pollution abatement and control expenditures*
- *Expenditures on environmental protection by industry and activity*
- *Waste disposal, by source, by province*