



Science, Innovation and Electronic Information Division (SIED)

Federal Science Expenditures Intended to Directly Benefit Developing Countries, 2004-2005

Confidential when completed

Français au verso

Return within 20 days of receipt

Please correct
any mistakes
in name or
address

Information for the respondent

Survey objective

The statistical information requested in this survey will be used to improve the understanding of Canadian investment in science and technology directed toward developing countries.

The data collected from this survey will be used for economic analysis related to scientific and technological activities by federal and provincial science policy analysts.

Planned Data Linkage

In order to enhance the analytical possibilities of the information collected from this survey, Statistics Canada intends to combine this data with the data collected from the Federal Science Expenditures and Personnel Surveys.

Authority

This survey is conducted under the authority of the *Statistics Act*, Revised Statutes of Canada, 1985, Chapter S-19. Completion of this questionnaire is a legal requirement under the *Statistics Act*.

Confidentiality

Statistics Canada is prohibited by law from publishing any statistics which would divulge information obtained from this survey that relates to any identifiable organization without the previous consent of that organization. The confidentiality provisions of the *Statistics Act* are not affected by either the *Access to Information Act* or any other legislation.

Reporting period and coverage

This questionnaire should be completed for the **fiscal year 2004-2005**. Please report all amounts in **Canadian currency**.

Instructions

For more information related to this survey and about concepts and definitions, please refer to the guide of instructions at the end of this questionnaire.

Questions

If you have any questions regarding this survey or if you require assistance in the completion of this questionnaire please address all enquiries to:

Statistics Canada
Science, Innovation and Electronic Information Division
7th Floor, R.H. Coats Building, Tunney's Pasture
Ottawa, Ontario K1A 0T6

E-mail: Sieidinfo@statcan.ca

or phone number: (613) 951-6513

Certification

Name of person who completed this report

Title

Web address

Department or agency

Telephone No.

() -

Fax No.

E-mail

I hereby authorize Statistics Canada to publish any or all portions of the data supplied on this questionnaire by this department.

Yes

No

5-5300-415: 2005-09-29 STC/SAT-465-75398



Statistics Canada
Statistique Canada

Canada

Section 1 - Scientific and technological expenditures for 2004-2005

1. For the fiscal year 2004-2005, did you have science and technology expenditures directed towards developing countries? (This includes science and technology activities funded by your department and performed either within Canada or abroad.)

- 001 3 No → Please return the questionnaire in the accompanying prepaid return envelope.
 1 Yes Thank you for your assistance.
 ↓

2. For the fiscal year 2004-2005, please report total science and technology expenditures. (in thousands of Cdn \$)

	Intramural 1	Extramural 2
002 Research and Development (R&D)		
003 Related scientific activities (RSA)		
004 Total (R&D + RSA)		

3. A) For the fiscal year 2004-2005, please report total science and technology expenditures directed towards developing countries. (in thousands of Cdn \$)

	Intramural 1	Extramural 2
005 Research and Development (R&D)		
006 Related scientific activities (RSA)		
007 Total (R&D + RSA)		

B) Please distribute amounts from question 3A according to the following selected socio-economic objectives listed. (in thousands of Cdn \$)

	Research and development 1		Related scientific activities 2		Total (R&D + RSA) 3	
	Intramural	Extramural	Intramural	Extramural	Intramural	Extramural
008 Education (Special services and studies, education support and research, etc.)						
009 Public Health (HIV, food safety, communicable diseases, sanitation, medical research, etc.)						
010 Information technology and communication (Telecommunication, satellites, software, etc.)						
011 Agricultural production and technology (Agriculture research, fishing, forestry-silviculture, fertilizers, pesticides, etc.)						
012 Environmental management (Smart-waste treatment, smart-water treatment, river development, etc.)						
013 Energy management (Renewable energies, biomass, nuclear safety, energy research, etc.)						
014 Social Sciences - excluding Educational sciences (Psychology, anthropology, etc.)						
015 Other (Specify): <input type="text"/>						
016 Total (R&D + RSA) (equal to the total reported in question 3A.) ..						

4. For the fiscal year 2004-2005, please indicate which countries your science and technology expenditures were directed towards. (Check all applicable responses)

- 017 China 1 Yes 3 No 020 Brazil 1 Yes 3 No
 018 India 1 Yes 3 No 021 South Africa 1 Yes 3 No
 019 Mexico 1 Yes 3 No

Section 2 - Obstacles in science and technological activities

5. Among the listed factors, please check the degree of importance that you generally attach to these obstacles to aim science and technology towards developing countries.

Where 1 indicates that you attach a low importance to the statement and 5 that you attach a very high importance to the statement. Please check 0 if the statement doesn't apply to the situation.

		Importance					Not Applicable
		Low				High	
022	Foreign administrative constraints	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
023	Lack of support in the foreign country	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
024	Security of the staff	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
025	Political risk in the foreign country	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
026	Other reasons not listed (Please specify)	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
	<input type="text"/>						

Section 3 - Cooperative arrangements with foreign partners

Cooperative arrangements in science and technology involve the active participation in projects between your department and other enterprises or organizations in order to develop or continue work on new or significantly improved goods and services, processes or products, related to science and technology. Pure contracting-out work is not regarded as cooperative.

6. For fiscal year 2004-2005, did your department participate in one or more cooperative arrangements with a developing country related to science and technology assistance?

027 3 No → Please go to section 4, thank you for your assistance.

1 Yes

↓

7. Please indicate the total number of science and technology (S&T) cooperative projects engaged with your department and a developing country by type of partner. (Check all applicable responses)

		Type of partner (Please check)	Number of projects
		1	2
028	Foreign universities	<input type="radio"/> →	
029	Foreign research institutes or associations	<input type="radio"/> →	
030	Foreign hospitals	<input type="radio"/> →	
031	Foreign enterprises	<input type="radio"/> →	
032	Other foreign government or department	<input type="radio"/> →	
033	Other (please specify):	<input type="radio"/> →	
	<input type="text"/>		
034	Total	<input type="radio"/> →	

Section 4 - Survey completion time

Approximately, how much time did you spend completing this questionnaire?

035 Minutes →

Section 5 - Comments and suggestions

We invite your comments or suggestions to help us to improve this questionnaire or any other topics related to this survey.

Instructions

General:

This questionnaire measures Canada's contribution to investment in science and technology for developing countries. It is important to note that the focus of this survey is direct investment in science and technology. In particular, we are interested in departments whose science and technology, performed within the department or performed by other entities but funded by federal departments, are intended for developing countries. Exports of goods or services with R&D content to developing countries are not considered direct investment.

Interpretation of scientific and technological activities

Scientific and technological (S&T) activities are required for the generation, dissemination or initial application of new S&T knowledge. The central activity is scientific research and experimental development (R&D). In addition there are a number of activities closely related to R&D, and are termed related scientific activities (RSA). Those identified as being appropriate for the federal government in the natural sciences and social sciences are: data collection, information services, special services and studies and education support.

Research and experimental development (R&D): creative work undertaken on a systematic basis in order to increase the stock of scientific and technical knowledge and to use this knowledge in new applications.

The central characteristic of R&D is an appreciable element of novelty and uncertainty. New knowledge, products or processes are sought. The work is normally performed by, or under the supervision of, persons with a postgraduate degree in the natural sciences, or social sciences or engineering.

Related scientific activities (RSA): these activities include: Scientific data collection, information services, special services and studies (including economic studies, feasibility studies and demonstration projects) education support.

Interpretation of intramural and extramural activities

Intramural: scientific activities performed by the personnel of the program concerned. These may include scientific activities carried out by another program on a cost recovery basis.

Extramural: extramural performers are entities that are funded for scientific and technological activities by the federal government sector. They include Canadian Business enterprises, higher education, non profit institutions, provincial and municipal governments and foreign performers.

Interpretation of developing countries

The term "developing countries" should be interpreted broadly to include less fortunate countries and exclude developed countries.

In this questionnaire, we have intentionally chosen not to provide a list of all developing countries. The expression "developing country" is only one term among others to designate the same type of problem. The way of designating these countries changes, depending on the angle from which they are approached and the solutions envisioned for solving their problems.

We therefore leave it up to respondents to judge which countries they consider to be developing countries, since even the official United Nations definition is constantly changing. However, the following are a few concepts that might help respondents to make their own judgement:

To say that a country is developed means that it has gone beyond a critical threshold and can compare its growth stage with that of other countries. The term development, in the present case, is often taken as shorthand for economic development, but also has to do with human development, which covers other parameters considered beneficial to society (education, health, life expectancy, etc.).

A country's development is measured using statistical indicators such as per capita income, the illiteracy rate and access to water. Accordingly, the UN makes a ranking of countries based on an indicator called the "human development index" (HDI). The following are a few examples of rankings according to the human development index:

Examples of medium human development countries ($0.8 > \text{HDI} > 0.5$): Mexico, Thailand, Brazil, China, Lebanon, Turkey, India.

Examples of low human development countries ($0.5 > \text{HDI}$): Haiti, Laos, Senegal, Niger, Pakistan, Yemen.

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