

Preliminary Assessment of Canadian Public and Private Financial Contributions Relevant to the Objectives of the United Nations Convention on Biological Diversity

Environment Canada

Final Version: August 4, 2011

CONTEXT:

- In response to a decision made by the Parties to the Convention on Biological Diversity (CBD), this report focuses on providing a preliminary assessment of data regarding Canadian public and private financial contributions that support the objectives of the CBD, using a diverse range of publicly available source data and information.
- This preliminary assessment has not undergone a comprehensive review process within Canada and should not be cited or used to make comparisons within or between organizations referenced in the report.
- The CBD Secretariat will use this and other Parties' preliminary assessments as input to:
 - i) better understand the challenges associated with collecting data of this nature;
 - ii) develop and propose methodological guidelines, definitions for Parties to follow in collecting this data;
 - iii) subsequently request Parties to re-submit their data, using agreed upon methodological guidelines.
- As a result, this first initial and preliminary submission is not meant to represent a final, comprehensive assessment of all of Canada's financial contributions towards the CBD. It is presented as part of a process needed to inform the CBD Secretariat, Canada and all other Parties in discussing how to develop an efficient and effective method to assess progress in implementing the CBD's Strategy for Resource Mobilization.

KEY POINTS:

- This exercise found that annual Canadian financial flows related to the objectives of the CBD range between \$5.4 billion and \$11.1 billion.
- Data sources captured in this study indicate that private businesses channel between \$140.8 million and \$278.16 million annually in activities related to the CBD. Additional effort is required to collect and collate data from the private sector to be able to provide a more realistic appreciation of this sector's efforts.
- Canada provides an estimated \$38.25 million - \$233.29 million annually in Official Development Assistance to support developing countries' efforts under the CBD.
- Discussion and agreement on how to identify activities that support the objectives of the CBD with greater precision would make it possible to reduce the range of estimates.

	Millions of CAN\$ annual (FY 2009-2010)		
	Low estimate	High estimate	Average estimate
Official Development Assistance (ODA)	\$ 38.25	\$ 233.29	\$ 135.77
Government of Canada	\$ 14.34	\$ 148.61	\$ 81.48
International financial institutions and United Nations	\$ 23.91	\$ 84.68	\$ 54.30
Domestic public budgets at all levels	\$ 4,189.62	\$ 9,421.86	\$ 6,805.74
Federal	\$ 2,442.81	\$ 2,998.51	\$ 2,720.66
Provincial	\$ 1,463.42	\$ 2,835.14	\$ 2,149.28
Local governments	\$ 283.39	\$ 3,588.21	\$ 1,935.80
Private sector	\$ 686.80	\$ 824.16	\$ 755.48
Business expenditures	\$ 140.80	\$ 278.16	\$ 209.48
User fees (parks fees, licenses)	\$ 546.00	\$ 546.00	\$ 546.00
Non-governmental organizations, foundations, and academia	\$ 508.46	\$ 614.63	\$ 561.55
Non-governmental organizations, foundations	\$ 446.01	\$ 446.01	\$ 446.01
Academia	\$ 62.45	\$ 168.62	\$ 115.54
TOTAL	\$ 5,423.13	\$ 11,093.94	\$ 8,258.54

BACKGROUND:

The United Nations Convention on Biological Diversity (CBD) entered into force in 1993. It has three main objectives: the conservation of biological diversity; the sustainable use of the components of biological diversity; and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.

At the Ninth Conference of the Parties (COP-9) of the CBD, Parties established a Strategy for Resource Mobilization to assist the Parties and relevant organizations to mobilize adequate and predictable financial resources to support the achievement of the Convention's three objectives. The Strategy considers the full range of possible local, national, regional and international funding sources, both public and private.

At the Tenth Conference of the Parties (COP-10) in October 2010, Parties agreed on a set of indicators to measure progress on implementing the Strategy for Resource Mobilization (Decision X/3). The indicators were based on the Strategy's mission and eight goals. It was further agreed that additional effort was required to establish methodologies and guidelines for collecting data on these indicators and to set baselines. Accordingly, Parties to the Convention were requested to submit data by July 31, 2011 on the following set of indicators that are outlined in Section A, Paragraph 7 of Decision X/3 (*Adopts* the following indicators for monitoring the implementation of the strategy for resource mobilization, based on its mission and eight goals):

(1) Aggregated financial flows, in the amount and where relevant percentage, of biodiversity-related funding, per annum, for achieving the Convention's three objectives, in a manner that avoids double counting, both in total and in, inter alia, the following categories:

- (a) Official Development Assistance (ODA);
- (b) Domestic budgets at all levels;
- (c) Private sector;
- (d) Non-governmental organizations, foundations, and academia;
- (e) International financial institutions;
- (f) United Nations organizations, funds and programmes;
- (g) Non-ODA public funding;
- (h) South-South cooperation initiatives;
- (i) Technical cooperation;

(2) Number of countries that have:

- (a) Assessed values of biodiversity, in accordance with the Convention;
- (b) Identified and reported funding needs, gaps and priorities;
- (c) Developed national financial plans for biodiversity;
- (d) Been provided with the necessary funding and capacity-building to undertake the above activities;

(3) Amount of domestic financial support, per annum, in respect of those domestic activities which are intended to achieve the objectives of this Convention;

(4) Amount of funding provided through the Global Environment Facility and allocated to biodiversity focal area;

- (5) Level of CBD and Parties' support to other financial institutions that promote replication and scaling-up of relevant successful financial mechanisms and instruments;
- (6) Number of international financing institutions, United Nations organizations, funds and programmes, and the development agencies that report to the Development Assistance Committee of Organisation for Economic Co-operation and Development (OECD/DAC), with biodiversity and associated ecosystem services as a cross-cutting policy;
- (7) Number of Parties that integrate considerations on biological diversity and its associated ecosystem services in development plans, strategies and budgets;
- (8) Number of South-South cooperation initiatives conducted by developing country Parties and those that may be supported by other Parties and relevant partners, as a complement to necessary North-South cooperation;
- (9) Amount and number of South-South and North-South technical cooperation and capacity-building initiatives that support biodiversity;
- (10) Number of global initiatives that heighten awareness on the need for resource mobilization for biodiversity;
- (11) Amount of financial resources from all sources from developed countries to developing countries to contribute to achieving the Convention's objectives;
- (12) Amount of financial resources from all sources from developed countries to developing countries towards the implementation of the Strategic Plan for Biodiversity 2011-2020;
- (13) Resources mobilized from the removal, reform or phase-out of incentives, including subsidies, harmful to biodiversity, which could be used for the promotion of positive incentives, including but not limited to innovative financial mechanisms, that are consistent and in harmony with the Convention and other international obligations, taking into account national social and economic conditions;
- (14) Number of initiatives, and respective amounts, supplementary to the financial mechanism established under Article 21, that engage Parties and relevant organizations in new and innovative financial mechanisms, which consider intrinsic values and all other values of biodiversity, in accordance with the objectives of the Convention and the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising out of Their Utilization;
- (15) Number of access and benefit-sharing initiatives and mechanisms, consistent with the Convention and, when in effect, with the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising out of Their Utilization, including awareness-raising, that enhance resource mobilization.

GENERAL NOTE ON METHODOLOGY

This report focuses on providing a preliminary assessment of data regarding Canadian public and private financial resources that support the objectives of the CBD, using a diverse range of source data and information, in response to CBD COP Decision X/3 (1). An estimate is provided of expenditures on biodiversity by both public and private sector sources using the categories agreed to in this Decision. All figures in this report were obtained from publicly available, previously published data sources. To ensure reliability, official reports such as government reports, annual reports and audited financial statements were used as a basis for collecting the information, with references provided. Data from surveys undertaken by Statistics Canada were also extremely important for some categories. Additional methodological details are provided under each specific indicator and category below.

Note that the vast majority of activities that contribute to the implementation of the CBD are diverse in nature. In a best case scenario, determining implementation of the CBD should, in addition to examining the traditional biodiversity sectors of environment, wildlife and protected areas, consider actions and expenditures in the resource sectors of agriculture, forestry and fisheries, and eco-tourism, as well as development assistance projects that focus on natural resources and sustainable livelihoods. In addition, actions by industrial sectors, municipalities, urban and rural areas that contribute to protection of lands, aquatic areas, wildlife, and sustainable use of biological resources, etc., all make contributions to the CBD. Expenditures on planning, environmental impact assessments, environmental education are additional examples of activities and expenditures that contribute to both the conservation of biodiversity and the sustainable use of biological resources. However, in most cases detailed expenditure information was not available at this level. As a result, many of these expenditures have not been fully counted in this study in order to ensure that overall results are not over-estimated.

All figures in this document are in Canadian dollars.

1. Financial flows for achieving the Convention's three objectives, by category:

(a) Official Development Assistance (ODA): \$38.25 million - \$233.29 million

	Millions of CAN\$ annual (FY 2009-2010)		
	Low estimate	High estimate	Average estimate
Official Development Assistance (ODA)	\$ 38.25	\$ 233.29	\$ 135.77
Government of Canada	\$ 14.34	\$ 148.61	\$ 81.48
<i>CIDA</i>	\$ 10.80	\$ 103.46	\$ 57.13
<i>Finance Canada</i>	\$ 0.92	\$ 20.74	\$ 10.83
<i>IDRC</i>	\$ 1.45	\$ 23.24	\$ 12.35
<i>Environment Canada</i>	\$ 0.70	\$ 0.70	\$ 0.70
<i>Parks Canada</i>	\$ 0.47	\$ 0.47	\$ 0.47
International financial institutions and United Nations	\$ 23.91	\$ 84.68	\$ 54.30
<i>Global Environment Facility</i>	\$ 16.63	\$ 22.05	\$ 19.34
<i>CGIAR</i>	\$ 2.85	\$ 48.32	\$ 25.59
<i>FAO</i>	\$ 3.92	\$ 10.53	\$ 7.23
<i>UNDP</i>	\$ -	\$ 3.01	\$ 1.51
<i>UNESCO</i>	\$ 0.51	\$ 0.77	\$ 0.64

i. Canadian International Development Agency (CIDA): \$10.80 - \$103.46 million (FY 2009-2010)

The Canadian International Development Agency (CIDA) is the largest government department provider of ODA in Canada, contributing \$3,575.19 million, of which \$2,666 million is bilateral aid. Financial allocations can be identified by sector¹, with significant contributions to areas supportive of the implementation of the CBD.

The Statistical Report on International Assistance, Fiscal Year 2009-2010 Canadian International Development Agency, indicates a number of investments by channel and by sector in areas that contribute directly to the implementation of the CBD. These are:

	<u>Millions</u>
Low-range estimate:	
014015: Water Resources Protection:	\$6.13
041020: Biosphere Protection	\$3.10
041030: Bio-diversity	\$1.47
041040: Site preservation	\$0.10
Sub-total Low-range estimate:	\$10.80
High-range estimate:	
014015: Water Resources Protection:	\$6.13
041020: Biosphere Protection	\$3.10
041030: Bio-diversity	\$1.47
041040: Site preservation	\$0.10
031100 Agriculture, forestry and fishing	\$558.23 x 10% = \$55.82

¹ Statistical Report on International Assistance. Fiscal Year 2009-2010. Canadian International Development Agency

041010 Environmental policy and admin mgt	\$29.05
041050 Flood prevention/control	\$0.84
041081 Environmental education/training	\$6.24
041082 Environmental Research	\$0.71
Sub-total High-range estimate:	\$103.46

CIDA's core contribution to the Global Environment Facility has not been taken into account in these figures and will be listed separately in the section on International Organizations.

ii. Department of Finance Canada: \$0.92 - \$20.74 million (FY 2009-2010)

The Department of Finance Canada is a large contributor to ODA, including the provision of financial resources to the World Bank Group. The International Development Association of the World Bank (IDA) is the largest multilateral channel of concessional financing to the world's poorest countries, providing funding supports to boost economic growth, reduce poverty, and improve the living conditions.² Finance Canada channels Canada's contribution to IDA. In fiscal year 2009-2010 this amounted to \$435.8 million.³

A portion of IDA resources, estimated at 7 percent, is directed toward its Environment and Natural Resource Management sector.⁴ Of this, approximately 3% is invested directly in biodiversity activities, with up to 68% related to the three objectives of the CBD.⁵ Based on this and the contribution of \$435.8 million provided to IDA from the Department of Finance, at least \$0.915 million and up to \$20.744 million could be considered as a contribution to implementation of the CBD.

Note that data for other World Bank Group expenditures was not included here. Most of the World Bank's additional expenditures related to biodiversity are loans that will eventually be paid back, amounting to a net flow of zero. The World Bank also provides a substantial amount of funding to biodiversity through various thematic trust funds. However, any contribution to these from Canada would be captured in CIDA's annual reports on ODA and likely covered in the previous section.

iii. International Development Research Centre (IDRC):⁶ \$1.45 million - \$23.24 million (FY 2009-2010)

IDRC is a significant contributor to ODA, providing \$205.4 million in 2008-2009, of which 85.5 percent or \$175.8 million was provided from the Government of Canada. One of

² <http://www.worldbank.org/IDA>

³ Statistical Report on International Assistance. Fiscal Year 2009-2010. Canadian International Development Agency. P.15.

⁴ The World Bank Annual Report 2010 Table 1, page 7

⁵ World Bank. IDA at Work. Environment: Protecting National and Global Resources. P. 3. siteresources.worldbank.org/IDA/Resources/IDA-Environment.pdf

⁶ IDRC Annual Report. The year in review 2009-2010

IDRC'S major research area is Environment and Natural Resource Management, which includes five sub-areas. One of the sub-areas is directed at climate change adaptation in Africa.

In FY 2009-2010 \$29.051 million was allocated to the program area Environment and Natural Resource Management, however the annual report does not break allocations into sub-areas. As four of the five sub-areas (80%) appears to be relevant to the implementation of the Convention on Biological Diversity, the contribution of IDRC to the objectives to the CBD could be estimated at 80 percent of \$29.051 million = \$23.240 million. Research by IDRC in its four other program areas could also be contributing to the implementation of the Convention, but to determine this would require reviewing over 1000 projects.

Alternatively, the Statistical Report on International Assistance, Fiscal Year 2009-2010 also provides ODA data for other government departments, agencies and entities by sector in areas that contribute directly to implementation of the CBD. For IDRC these are:

	<u>Millions</u>
Low-range estimate:	
041020: Biosphere Protection	\$0.28
041030: Bio-diversity	\$0.94
041040: Site preservation	\$0.23
Sub-total Low-range estimate:	\$1.45
High-range estimate:	
041020: Biosphere Protection	\$0.28
041030: Bio-diversity	\$0.94
041040: Site preservation	\$0.23
031100 Agriculture, forestry and fishing	\$6.53 x 10% = \$0.65
041010 Environmental policy and admin mgt	\$2.19
041050 Flood prevention/control	\$0.07
041082 Environmental Research	\$0.49
Sub-total High-range estimate:	\$4.85

As a result, IDRC's contribution to ODA that contributes to the objectives of the CBD could be estimated at \$1.45 million - \$23.24 million.

iv. Environment Canada (EC): \$0.7 million⁷ (FY 2009-2010)

EC provided \$4.04 million in ODA. This amount is divided among a number of areas including support for environmental groups in developing countries and providing wildlife, bird and fish technical support and cooperation. Contributions also include activities not

⁷ Report to Parliament on the Government of Canada's Official Development Assistance 2008-09

related to the objectives of the CBD, such as EC's contribution to the Montreal Protocol Multilateral Fund. These were not counted. Additionally, only a portion of EC's annual contribution to UNEP has been included as contributing to the CBD – 18.9% based on UNEP's 2010 Programme of Work. As a result, \$0.7 million has been included as an estimated contribution from EC.

v. Parks Canada: \$0.47 million⁸ (FY 2009-2010)

Parks Canada provided \$0.47 million in FY 2008-2009 in ODA. The contribution was for protected areas and heritage initiatives. Activities, such as park operations management and use of science and conservation tools are directly supportive of the implementation of the CBD, and thus, all of the \$0.47 million is included in the total ODA contribution.

International Financial Institutions and United Nations Organizations, Funds and Programmes

vi. Consultative Group on International Agricultural Research (CGIAR): \$2.85 million - \$48.32 million (2009)⁹

CGIAR contributes significantly to efforts to reduce poverty and hunger, improve human health and nutrition, and enhance ecosystem resilience through high-quality international agricultural research, partnership and leadership. As its research is on sustainable agriculture, sustainable forestry and sustainable fishery, all of their research could be considered as a contribution to implementing the objectives of the Convention, in particular, the sustainable use of biological resources objective. However, in 2009 only 5.89% was programmed specifically for its biodiversity research center.

Canada was the third largest contributor to CGIAR with an annual contribution of \$48.32 million. 5.89% of \$48.32 million = \$2.85 million. While this amount is embedded in CIDA's Official Development Assistance reports, it is not normally classified as "biodiversity funding". As a result, this amount has not been included in the section above on CIDA's ODA, but included here in the section on International Financial Institutions and United Nations Organizations.

vii. Food and Agriculture Organization (FAO): \$3.92 - \$10.53 million (FY 2009-2010)

Canada's annual contribution to the FAO in FY 2009-2010 was \$10.53 million¹⁰. While this amount is embedded in CIDA's Official Development Assistance reports, it is not normally

⁸ Report to Parliament on the Government of Canada's Official Development Assistance 2008-09

⁹ CGIAR Financial Report 2009. <http://www.cgiar.org>

¹⁰ Statistical Report on International Assistance. Fiscal Year 2009-2010. Canadian International Development Agency. P. 14.

classified as “biodiversity funding”. As a result, this amount has not been included in the section above on CIDA’s ODA, but included here in the section on International Financial Institutions and United Nations Organizations. It is also important to note that a large portion of Canada’s contribution to the FAO is provided by DFAIT.

Much of the FAO’s activities appear to be related to the objectives of the CBD. The FAO’s 2012-2013 proposed Programme of Work details 12 key areas of work¹¹, of which the following are directly related to meeting the objectives of the CBD:

- Sustainable intensification of crop production
- Increased sustainable livestock production
- Sustainable management and use of fisheries and aquaculture resources
- Sustainable management of forests and trees
- Sustainable management of land, water and genetic resources

These 5 areas represent approximately 37.2% of the FAO’s budget. Therefore, if Canada provided \$10.53 million to the FAO in FY 2009-2010, one could estimate that at least \$3.92 million contributed to meeting the objectives of the CBD.

viii. Global Environment Facility (GEF): \$16.63 million - \$22.05 million (2010)

Canada’s annual contribution to the GEF is \$59.6 million under GEF-5 (2010-2014). 27.9 percent of these resources is programmed directly for the biodiversity focal area, including sustainable forest management = US\$16.63 million. However, there are substantial levels of funding included in the GEF’s international waters and land degradation focal areas that are biodiversity activities. This would bring the proportion of GEF-5 biodiversity-related resources up to 37%, of which Canada’s share would be \$22.05 million.

While this amount is embedded in CIDA’s Official Development Assistance reports, it is not normally classified as “biodiversity funding”. As a result, this amount has not been included in the section above on CIDA’s ODA, but included here in the section on International Financial Institutions and United Nations Organizations.

ix. United Nations Development Programme (UNDP): \$0 - \$3.01 million (FY 2009-2010)

In FY 2009-2010, the Government of Canada provided a total of \$176.54 million to UNDP¹². It is not clear however how much of this may have contributed directly to the objectives of the CBD.

¹¹ FAO. Medium Term Plan 2010-13 and Programme of Work and Budget 2010-11. www.fao.org/docrep/meeting/017/K5831E.pdf

¹² Statistical Report on International Assistance. Fiscal Year 2009-2010. Canadian International Development Agency. P. 15.

UNDP reports that its “portfolio of biodiversity projects consists of 177 initiatives under implementation, with a value of US\$ 1.879 billion. The Global Environment Facility (GEF) is the largest financier of these projects, contributing US\$ 533 million in funds administered by UNDP. Other financiers of projects include the German-funded International Climate Initiative, bilateral agencies, governments and the private sector. In addition, the GEF Small Grants Programme (SGP), implemented by UNDP has established operations in over 120 countries. A number of other UNDP environment programmes also contribute towards biodiversity management, including the Poverty–Environment Initiative, the UN–REDD Programme, UNDP’s GEF supported International Waters Programme and initiatives of the Nairobi based Drylands Development Centre.”¹³

It would appear, therefore, that almost all of UNDP’s biodiversity-related activities are funded through the GEF or through specific funding from bilateral donors. As Canada’s contribution to the GEF has already been counted above, it would not be consistent to attempt to count any resources reported by UNDP.

However, of the \$176.54 million noted above as Canada’s contributions to UNDP in FY 2009-2010 \$73.00 million was reported as a core contribution made by CIDA to UNDP – and thus definitely additional to any funding that CIDA counts as a contribution to the GEF. From 2004-2007, UNDP disbursed US\$1.58 billion on environmental programming, of which US\$181.8 million came from regular resources¹⁴. Over this same time period US\$1.1 billion was contributed to UNDP as regular, core resources by donors. Therefore, it could be estimated that on average 16.52% of UNDP’s core resources are used for environmental programming. With current focus on climate change at UNDP, one could estimate that no more than 25% of this funding would contribute directly to the CBD. As a result, an estimated 4.13% of Canada’s contributions to UNDP’s core funding, or \$ 3.01 million in FY 2009-2010 could be counted as biodiversity-related funding.

**x. United Nations Educational, Scientific and Cultural Organization (UNESCO):
\$0.51 million – \$0.77 million (FY 2009-2010)**

In FY 2009-2010 Canada provided a total of \$6.13 million to UNESCO. However it is not clear how much of this overall contribution was allocated to biodiversity-related activities. UNESCO does state that in 2009 US\$34 million of its resources paid from assessed contributions was used to fund its “Natural Sciences” program, much of which – between 50% - 75% - is related to biodiversity and water management issues¹⁵. Canada’s assessed scale of contribution to UNESCO is 2.99%. As a result, approximately \$1.02 million x 50% to 75% = \$0.51 million to \$0.77 million could be counted as contributing to the CBD.

xi. Multilateral Development Banks:

¹³ UNDP (2010). UNDP’s Work on Biodiversity Management. P. 4.

¹⁴ <http://www.undp.org/publications/fast-facts/FF-environment.pdf>

¹⁵ <http://unesdoc.unesco.org/images/0019/001918/191870e.pdf>

In FY 2009-2010 Canada provided substantial levels of funding (over \$500 million) to several multilateral development banks such as the Asian Development Bank, the Interamerican Development Bank, the African Development Bank and the World Bank, amongst others. While these entities provided substantial support for the objectives of the CBD, it was ultimately deemed not possible at this point to arrive at a credible estimate for this contribution. On one hand, it was difficult to differentiate between what these entities provided as grants and what was provided as loans. Additionally, it was challenging to identify what portion of each organization’s “environment” or “natural resources” portfolios was directly related to biodiversity activities.

(b) Domestic budgets at all levels:

	Millions of CAN\$ annual (FY 2009-2010)		
	Low estimate	High estimate	Average estimate
Domestic public budgets at all levels	\$ 4,189.62	\$ 9,421.86	\$ 6,805.74
Federal	\$ 2,442.81	\$ 2,998.51	\$ 2,720.66
<i>Agriculture and Agri-food Canada</i>	\$ 177.90	\$ 177.90	\$ 177.90
<i>Environment Canada</i>	\$ 178.90	\$ 372.10	\$ 275.50
<i>Parks Canada</i>	\$ 716.07	\$ 716.07	\$ 716.07
<i>Natural Resources Canada</i>	\$ 10.90	\$ 280.90	\$ 145.90
<i>Fisheries and Oceans Canada</i>	\$ 1,270.10	\$ 1,270.10	\$ 1,270.10
<i>Indian and Northern Affairs</i>	\$ 55.50	\$ 148.00	\$ 101.75
<i>Canadian Museum of Nature</i>	\$ 33.44	\$ 33.44	\$ 33.44
Provincial	\$ 1,463.42	\$ 2,835.14	\$ 2,149.28
<i>British Columbia</i>	\$ 415.08	\$ 858.84	\$ 636.96
<i>Alberta</i>	\$ 182.09	\$ 231.22	\$ 206.66
<i>Saskatchewan</i>	\$ 22.08	\$ 187.30	\$ 104.69
<i>Manitoba</i>	\$ 141.48	\$ 168.43	\$ 154.96
<i>Ontario</i>	\$ 253.16	\$ 358.98	\$ 306.07
<i>Quebec</i>	\$ 179.58	\$ 718.18	\$ 448.88
<i>New Brunswick</i>	\$ 27.87	\$ 57.68	\$ 42.78
<i>Prince Edward Island</i>	\$ 10.61	\$ 10.61	\$ 10.61
<i>Nova Scotia</i>	\$ 82.75	\$ 95.18	\$ 88.97
<i>Newfoundland & Labrador</i>	\$ 51.37	\$ 51.37	\$ 51.37
<i>Yukon</i>	\$ 27.50	\$ 27.50	\$ 27.50
<i>Northwest Territories</i>	\$ 54.12	\$ 54.12	\$ 54.12
<i>Nunavut</i>	\$ 15.73	\$ 15.73	\$ 15.73
Local governments	\$ 283.39	\$ 3,588.21	\$ 1,935.80

Federal:

Data was examined from federal departments’ annual performance reports. These reports identify expenditures carried out in each program area. The sections below identify annual expenditures made in program areas directly related to the objectives of the CBD. In cases where biodiversity-related funding was evident, but a clear, direct relationship to the objectives of the CBD was not evident, attempts were made to estimate a low-range and a high-range of funding.

i. Agriculture and Agri-Food Canada \$177.9 million (2009-10)¹⁶

- Environmentally sustainable agriculture, agri-food and agri-based products: Environmental Knowledge, Technology, Information, and Measurement: \$92.9 million
- Environmentally sustainable agriculture, agri-food and agri-based products: On-farm action \$85.0 million

ii. Environment Canada: \$178.9 million – \$372.1 million (2009-10)¹⁷

Low-range:

- Biodiversity and Wildlife Program: \$143.5 million
- Ecosystem Initiatives Program: \$35.4 million

High-range

- Environmental Science and Monitoring Program \$113.9 million
- Water Program: \$87.4 million

iii. Parks Canada \$716.07 million (2009-10)¹⁸

- The entire annual budget for Parks Canada was included given that 100% of its activities have the objective of managing Canada’s protected areas.
- This figure does not take into revenue generated by Parks Canada. This will be included under “Private sector” contributions.

iv. Natural Resources Canada \$10.9 million - \$280.9 million (2009-10)¹⁹

Low-range:

- Natural Resource-based Communities: \$10.9 million

High –range:

- Ecosystem Risk Management: \$156.5 million
- Natural Resource and Landmass Knowledge and Systems: \$113.5 million

v. Fisheries and Oceans Canada \$1,270.1 million (2009-10)²⁰

¹⁶ Agriculture and Agri-Food Canada 2009-10 Departmental Performance Report. <http://www.tbs-sct.gc.ca/dpr-rmr/2009-2010/inst/agr/agr02-eng.asp#sect2>

¹⁷ Environment Canada 2009-2010 Departmental Performance Report. <http://www.tbs-sct.gc.ca/dpr-rmr/2009-2010/inst/doe/doetb-eng.asp>

¹⁸ Parks Canada 2009-2010 Departmental Performance Report. <http://www.pc.gc.ca/eng/docs/pc/rpts/rmr-dpr/03312010.aspx>

¹⁹ Natural Resources Canada 2009-2010 Departmental Performance Report. <http://www.tbs-sct.gc.ca/dpr-rmr/2009-2010/inst/rsn/rsn02-eng.asp#secII12>

²⁰ Fisheries and Oceans Canada 2009-2010 Departmental Performance Report. <http://www.tbs-sct.gc.ca/dpr-rmr/2009-2010/index-eng.asp?acr=1674>

- Sustainable Fisheries and Aquaculture Management: \$474.5 million
- Fisheries and Aquaculture Management: \$339.6 million
- Science for Sustainable Fisheries and Aquaculture: \$134.9 million
- Healthy and Productive Aquatic Ecosystems \$160.6 million
- Oceans Management: \$15.8 million
- Habitat Management: \$62.0 million
- Species at Risk Management: \$21.8 million
- Science for Healthy and Productive Aquatic Ecosystems: \$60.9 million

vi. Indian and Northern Affairs \$55.5 million - \$148.0 million (2009-2010)²¹

Low-range:

- Northern Land and Resources: \$55.5 million (\$222 million x 25%; 3 of the 4 sub-programs associated with this program are related to oil, gas and mineral development, and contaminated sites. One program is related to protected lands and resources)

High-range:

- Responsible Federal Stewardship: \$91.5 million (\$126.9 million - \$35.4 million associated with contaminated sites)
- Canadian Polar Commission: \$1.0 million

vii. Canadian Museum of Nature \$33.4 million (2009-10)²²

- The Museum received \$33.44 million in parliamentary appropriations in 2009-2010.

Canadian Provinces and Territories:

Data was examined from relevant provincial ministries' annual reports. These reports identify expenditures carried out in each program area. The sections below identify annual expenditures made in program areas directly related to the objectives of the CBD. In cases where biodiversity-related funding was evident, but a clear, direct relationship to the objectives of the CBD was not evident, attempts were made to estimate a low-range and a high-range of funding.

Annual expenditures by provinces and territories to enhance and protect to biodiversity were determined through an analysis of departmental annual reports and Finance Department reports for FY 2009-2010 (2008-2009 for P.E.I.). In many cases, annual reports were available for those ministries and departments responsible for biodiversity-related activities. When these reports were not available, either year-end lists of expenditures prepared by finance departments, or

²¹ 2009-2010 Departmental Performance Report. Indian Affairs and Northern Development. <http://www.tbs-sct.gc.ca/dpr-rmr/2009-2010/inst/ian/iantb-eng.asp>

²² Canadian Museum of Nature. 2010 Annual Report. <http://nature.ca/en/about-us/museum-corporation/annual-reports-corporate-publications>

backward-looking budget estimates for 2011-2012 were used to extract biodiversity-related expenses.

The organizational structures of each jurisdiction were initially reviewed to identify the most relevant biodiversity related Ministries or Departments. The range of Ministries or Departments included: energy, mines, natural resources, environment, sustainable development, agriculture, tourism, parks, conservation, forestry, range management, fisheries and aquaculture, with significant variation among jurisdictions. Departments of agriculture proved most challenging in determining expenditures on biodiversity related activities. Departments that included several resources (energy, mines, tourism and aquaculture, etc.) were also sometimes difficult to determine expenditures on biological resources, likely leading to underestimating expenditures.

Additional time would be required to further refine estimated contributions of provinces and territories, and would in some cases, require contacting various government agencies to obtain more detailed information than is available online. Forest fire control was included when this information was available. Fire control has both a positive and negative influence on forest biodiversity, but is particularly important in achieving the sustainable use of forest resources. Fire control is an element of the CBD programme of work on forest biodiversity.

viii. British Columbia: \$415.1 million - \$858.8 million (FY 2009-2010)

- Ministry of Environment - biodiversity expenditures estimated at \$42,743,000 (low-range) - \$104,371,000 (high-range) of the total budget of \$189,491,000²³
- Ministry of Forest and Range – biodiversity expenditures estimated at \$ 372,337,000 (low-range) - \$ 754,471,000 (high-range)²⁴ (NOTE: The high-range estimate includes direct expenditures incurred for fighting forest fires).

ix. Alberta: \$182.09 million - \$231.22 million (FY 2009-2010)

- Ministry of Agriculture and Rural Development - Policy and Environment Program (50%) - biodiversity expenditure estimated at \$21,884,500²⁵
- Ministry of Environment – biodiversity expenditures estimated at \$35,960,000 (low-range) - \$85,091,000 (high-range)²⁶
- Ministry of Sustainable Resource Development - biodiversity expenditure estimated at \$44,443,100 of the total budget of \$486,363,000²⁷
- Ministry of Tourism, Parks and Recreation - biodiversity expenditure estimated at \$79,800,000 of the total budget of \$222,414,000²⁸

²³ Ministry of Environment 2009/10 Annual Service Plan Report. p 36. British Columbia

²⁴ Ministry of Forest and Range (2009/10 Annual Service Plan Report, p. 25

²⁵ Ministry of Agriculture and Rural Development - Policy and Environment. Annual Report 2009/2010, p. 59 Alberta

²⁶ Ministry of Environment. Annual Report 2009-2010. p. 77. Alberta

²⁷ Ministry of Sustainable Resource Development. Annual Report 2009-2010. p. 38 Alberta

²⁸ Ministry of Tourism, Parks and Recreation. Annual Report 2009-2010 p. 30 Alberta

x. Saskatchewan: \$22.08 million - \$187.3 million (FY 2009-2010)

- Ministry of Environment:
 - Low-range estimate: Forest Services, Fish, Wildlife and Biodiversity - \$25,035
 - High-range estimate: All of above + Forest Services, Fire Management and Forest Protection, Environmental Protection, Compliance & Field Services, Corporate Policy and Planning = \$165,227,956²⁹
- Ministry of Tourism, Parks, Culture and Sports - biodiversity expenditure estimated at \$22,056,000.³⁰

xi. Manitoba: \$141.48 million - \$168.43 million (FY 2009-2010)

- Ministry of Agriculture, Food and Rural Initiatives - biodiversity expenditure (Agri-environment, Land-use) estimated at \$5,383,000³¹
- Ministry of Water Stewardship:
 - High-range estimate for biodiversity expenditure estimated at \$26,943,209.³²
- Manitoba Conservation - \$136,099,000³³

xii. Ontario: \$ 253.16 million - \$ 358.98 million (FY 2009-2010):

- Ministry of Natural Resources:
 - Low-range estimate: Natural Resource Management Program (Fish & Wildlife, Land & Water, Ontario Parks (net expenses, not including Parks revenues), Field Services Support) = \$196,229,773
 - High-range estimate: All of the above + Public Safety and Emergencies Program (Forest Fire service) = \$302,051,124.³⁴
- Ministry of Environment: Water Program – Source Protection = \$47,218,314.³⁵
- Ministry of Agriculture, Food and Rural Affairs³⁶: \$9,710,835 (Agricultural Drainage Infrastructure Program \$7,270,847; Agri-Environmental Standards Research \$545,000; Environment Partnerships \$1,894,988).

xiii. Quebec: \$179.58 million - \$718.18 million (FY 2009-2010)

- Ministry of Sustainable Development, Environment and Parks: \$ 98,380,000 (Environmental Policies, Park Management, Environmental Evaluations, Regional Analysis and Expertise)³⁷.

²⁹ Ministry of Environment Annual Report 09-10 pp. 28-29 Saskatchewan

³⁰ Ministry of Tourism, Parks, Culture and Sports. Annual Report 09-10 pp. 31-32. Saskatchewan

³¹ Ministry of Agriculture, Food and Rural Initiatives. Annual Report 2009-2010 pp. 136 Manitoba

³² Ministry of Water Stewardship. Annual Report 2009-2010 pp. 78-79 Manitoba

³³ Ministry of Conservation. Annual Report 2009-2010 pp. 166-169 Manitoba

³⁴ Ontario Ministry of Finance. Public Accounts of Ontario 2009-2010. p. 2-307.

³⁵ Ibid. p. 2-165.

³⁶ Ibid. p. 2-7.

- Ministry of Natural Resources and Wildlife:
 - Low-range estimate: \$81.2 million from Wildlife Program.
 - High-range estimate: Above + \$538.6 million from Forest Program = \$619.8 million³⁸.

xiv. New Brunswick: \$27.87 million - \$ 57.68 million (FY 2009-2010)

- Department of Tourism and Parks:
 - Low-range estimate: \$0 – NOTE: Annual Report does not differentiate between expenses related to the development of tourism products and the operations of provincial parks.
 - High-range estimate: Tourism Development and Operations (provincial parks) = \$8,874,900.³⁹
- Department of Environment: \$12,527,100⁴⁰
- Department of Natural Resources:
 - Low-range estimate: \$11,940,700 (Fish & Wildlife Management; Land Management & Natural Areas. NOTE: does not include revenues)
 - High-range estimate: \$32,873,600 (above + Forest Management)⁴¹
- Department of Agriculture, Aquaculture and Fisheries: \$3,405,000⁴² (Land & Environment; Sustainable Aquaculture)

xv. Nova Scotia: \$82.75 million - \$95.18 million (FY 2009-2010)

- Department of Environment:
 - Low-range estimate: \$4,635,200 (Environment Science & Program Management x 20% - as this Division also conducts work on air quality, water, pollution prevention).
 - High-range estimate: \$ 17,059,200 (Above + Environmental Monitoring & Compliance; Environment and Sustainable Prosperity Partnerships)⁴³
- Department of Natural Resources: \$78,119,000⁴⁴ (Renewable Resources + Regional Services).

xvi. Prince Edward Island: \$10.61 million (FY 2008-2009)

- Department of Tourism and Culture: \$3,117,713 (Provincial Parks operations and administration).⁴⁵

³⁷ Ministère du Développement durable, de l'environnement et des parcs, Québec. Rapport annuel de gestion 2009-2010, p.44.

³⁸ Ministry of Natural Resources and Wildlife. Annual Report 2009 - 2010 Quebec

³⁹ Department of Tourism and Parks. Annual Report. 2009-2010 Tourism and Parks. p.5 New Brunswick.

⁴⁰ Department of Environment. Annual Report. 2009-2010 Environment and Natural Resources. p.51 New Brunswick

⁴¹ Department of Natural Resources. Annual Report. 2009-2010 p. 14. New Brunswick.

⁴² Ministry of Finance 2009-2010 Main Estimates for Agriculture, Aquaculture and Fisheries p.24 New Brunswick

⁴³ Department of the Environment. Accountability Report 2009-2010. Nova Scotia

⁴⁴ Department of Natural Resources. Accountability Report 2009-2010 p. 18 Nova Scotia

- Department of Environment, Energy and Forestry:
 - Forests, Fish & Wildlife: \$6,699,328
 - Water Management (x25%): \$794,015.⁴⁶

xvii. Newfoundland and Labrador: \$51.37 million (FY 2009-2010):

- Department of Environment and Conservation:
 - Environmental Management and Control (Water Resources Management): \$4,032,636
 - Parks and Natural Areas: \$7,646,372
 - Wildlife: \$9,136,480.⁴⁷
- Department of Natural Resources:
 - Forest Management – Operations: \$12,915,012
 - Forest Management - Administration and Program Planning: \$8,261,307
 - Forest Management – Fire suppression and communications: \$3,999,025
 - Forest Management – Insect control: \$3,475,838
 - Agrifoods Development - Land Resource Stewardship: \$1,905,381.⁴⁸

xviii. Nunavut: \$15.73 million (FY 2009-2010)

- Department of Environment: \$20,972,000 x 75% = \$15,729,000 (3 of the 4 main Programs of the Department of the Environment are directly related to the CBD's objectives).⁴⁹

xix. Northwest Territories: \$54.12 million (FY 2009-2010)

- Department of Environment and Natural Resources:
 - Forest Management: \$25,044,000
 - Wildlife: \$14,038,000
 - Land and Water: \$2,186,000.⁵⁰
- Department of Industry, Tourism and Investment:
 - Tourism and Parks: \$12,850,000.⁵¹

xx. Yukon: \$27.50 million (FY 2009-2010)

- Department of Energy, Mines and Resources:

⁴⁵ Department of Tourism and Culture – Provincial Parks. Annual Report 2008-2009 p. 33. Prince Edward Island

⁴⁶ Department of Environment, Energy and Forestry. Annual Report 2008-2009. Prince Edward Island

⁴⁷ Department of Environment and Conservation. Annual Report 2009-2010 pp. 28-29 Newfoundland and Labrador

⁴⁸ Department of Natural Resources. Annual Report 2009-2010 pp. 95-98. Newfoundland and Labrador

⁴⁹ Department of Finance of Nunavut. Revised. 2010-2011. Main Estimates. pp. 11 – 17. Nunavut

⁵⁰ Department of Finance, Northwest Territories. 2011-2012 Main Estimates, Department Summary. p.13-1

⁵¹ Ibid.

- Sustainable Resources: \$8,754,000.⁵²
- Department of Environment:
 - Environmental Sustainability: \$18,743,000.⁵³

xxi. Local Governments: \$283.39 - \$3,588.21 million (2008)

Attempting to review specific expenditure data for every municipality in Canada would not be feasible or practical for this study. As a result, it was decided to estimate the financial contributions of local governments to the objectives of the CBD using local government expenditure data available from Statistics Canada⁵⁴.

This information does not however enable specific determination of actual expenditures on activities that contribute to the implementation of the CBD. Firstly, it classifies some local government expenditures as “Environment” and then sub-classifies these into “Water purification and supply”, “Sewage collection and disposal”, “Garbage, waste collection and disposal”, and “Other environmental services”. While all of these elements may be important for environmental protection, they probably do not all make direct contributions to conserve biodiversity or sustainably use biological resources. Expenditures labelled as “Other environmental services” may include biodiversity-related activities.

On one hand, it could be argued that an estimate of at least 25% of all local government “Environment” expenditures contribute to the objectives of the CBD. On the other hand, given that activities related to water, sewage and waste are counted separately under their own sub-category in this data, it would be conservative to estimate that at least 50% of the sub-category “Other environmental services” expenditures are likely to contribute to the objectives of the CBD.

Secondly, Statistics Canada classifies some local government expenditures as “Resource conservation and industrial development”. Noting that some of these expenditures relate to “industrial development” rather than “resource conservation”, for our high-range estimate we assume that 25% of this category contributes to the objectives of the CBD.

As a result, according to Statistics Canada, in 2008 Canadian local governments expended the following biodiversity related expenditures⁵⁵:

- Low-range estimate:
 - Other environmental services: $\$261,533,000 \times 50\% = \130.77 million
 - Resource conservation and industrial development: $\$1,526,196,000 \times 10\% = \152.62 million.
- High-range estimate:
 - “Environment” expenditures: $\$12,826,647,000 \times 25\% = \$3,206.66$ million

⁵² Department of Finance, Government of Yukon. 2011-2012 Operation, Maintenance and Capital Estimates p.14 and 17 Yukon

⁵³ Department of Finance, Government of Yukon, 2011-2012 Operation, Maintenance and Capital Estimates p.14 and 17 Yukon

⁵⁴ Statistics Canada. Table 385-0003 - Local government revenue and expenditures for fiscal year ending closest to December 31, annual (dollars), CANSIM (database).

⁵⁵ Ibid

- Resource conservation and industrial development: \$1,526,196,000 x 25% = \$381.55 million.

(c) Private sector:

	Millions of CAN\$ annual (FY 2009-2010)		
	Low estimate	High estimate	Average estimate
Private sector	\$ 686.80	\$ 824.16	\$ 755.48
<i>Business expenditures</i>	\$ 140.80	\$ 278.16	\$ 209.48
<i>User fees (parks fees, licenses)</i>	\$ 546.00	\$ 546.00	\$ 546.00

i. Business expenditures:

According to the 2008 Statistics Canada publication *Environmental Protection Expenditures in the Business Sector*, businesses operating in Canada spent \$9.1 billion in 2008 on environmental protection.⁵⁶ This amount is based on both capital and operating expenditures in the following areas:

- Waste management and sewerage services;
- Pollution prevention processes;
- Pollution abatement and control - end-of-pipe;
- Reclamation and decommissioning;
- Environmental monitoring;
- Wildlife and habitat protection; and
- Environmental assessments and audits.

Activities in all of the above areas would make some contribution to the implementation of the CBD, in particular, the conservation of biodiversity and sustainable use of biological resources objectives. However, it would be difficult to justify including expenditures from the first four categories as directly related to the objectives of the CBD.

“Environmental monitoring” refers to expenditures for purchase of equipment, supplies, labour and services required to monitor pollutant emissions that would affect air, water or soil quality. As a result, at least a portion of these expenditures could be included as contributing to the objectives of the CBD. The same could be said of “Environmental assessments and audits”, defined as expenditures made to review the current compliance of operations with regulations and to evaluate the environmental impact of proposed projects. “Wildlife and habitat protection” is clearly related to the objectives of the CBD and could be included in its full amount.

- Low-range estimate: \$140.8 million (2008)
 - Wildlife and habitat protection: \$140.8 million
- High-range estimate: \$278.16 million (2008)
 - Wildlife and habitat protection: \$140.8 million
 - Environmental monitoring: \$329.1 million x 25% = \$82.28 million
 - Environmental assessments and audits: \$220.3 million x 25% = \$55.08 million

⁵⁶ Statistics Canada. Environmental Protection Expenditures in the Business Sector. 2008

ii. User fees:

An additional area of private sector expenditures relates to user fees, including direct fees, licenses and permits. In the case of protected areas, for example, users pay fees to use recreational facilities in parks and campsites. Resource users, such as fishers and loggers, also pay for licenses and permits, although in some cases it would be very difficult to determine if the purpose of these license fees are related to the objectives of the CBD. In many cases, however, governments have specific accounts used to collect and disburse these funds.

The following highlights the main available data for revenues from user fees (Total: \$546,009,785):

- National protected areas revenue (2010)⁵⁷: \$80,752,000
 - Entrance fees: \$56,631,000
 - Recreational fees: \$24,121,000
- Provincial protected areas revenue: \$226,796,285
 - British Columbia: \$16,000,000 (FY 2009-2010)⁵⁸
 - Alberta: \$8,843,000 (FY 2009-2010)⁵⁹
 - Saskatchewan: \$13,880,000 (FY 2009-2010)⁶⁰
 - Manitoba: \$4,720,000 (FY 2010 – 2011 estimate)⁶¹
 - Ontario: \$65,313,000 (FY 2009-2010)⁶²
 - Quebec: \$ 110,963,000 (FY 2009-2010)⁶³
 - New Brunswick: \$6,259,500 (FY 2009-2010)⁶⁴
 - Prince Edward Island: \$817,785 (2009)⁶⁵
 - Nova Scotia, Newfoundland and Labrador, Nunavut, Northwest Territories, Yukon: Not available.
- Other user fees: \$ 238,461,500
 - While most Canadian provinces and territories collect fees for other biodiversity-related user fees, such as wildlife-related licenses and permits, it was only possible to collect specific data in the following cases
 - British Columbia Conservation Trust Fund: \$6 million (2011).⁶⁶
 - Alberta Recreational Licensing Management System: \$111,295,000 (FY 2009-2010).⁶⁷

⁵⁷ Parks Canada 2009-2010 Departmental Performance Report. <http://www.pc.gc.ca/eng/docs/pc/rpts/rmr-dpr/03312010.aspx>

⁵⁸ BC Parks Annual Report 2009-2010. www.env.gov.bc.ca/bcparks/research/year_end.../year_end_rep_2010.pdf

⁵⁹ Alberta Tourism, Parks and Recreation Business Plan 2011-2014. www.finance.alberta.ca/publications/budget/.../tourism-parks-recreation.pdf

⁶⁰ Ministry of Tourism, Parks, Culture and Sports. Annual Report 09-10. Saskatchewan

⁶¹ 2011 Manitoba Estimates of Expenditure and Revenue. www.gov.mb.ca/finance/budget11/papers/r_and_e.pdf

⁶² Ontario Ministry of Natural Resources. Results-based plan 2010-2011.

⁶³ Sépaq • Rapport annuel 2008- 2009. Québec.

⁶⁴ Department of Tourism and Parks. Annual Report. 2009-2010 Tourism and Parks. New Brunswick.

⁶⁵ Department of Tourism and Culture – Provincial Parks. Annual Report 2008-2009. Prince Edward Island

⁶⁶ Habitat Conservation Trust Fund. Press Release April 15, 2011. “Foundation gives back \$6 million to BC wildlife”.

⁶⁷ Ministry of Sustainable Resource Development. Annual Report 2009-2010. Alberta. The Ministry of Sustainable Resource Management of Alberta outsourced the sale of recreational hunting and fishing licences through the Recreational Licensing Management (RELM) system to IBM. Under the agreement, IBM has full responsibility for the service and it is responsible for all costs associated with it. IBM receives a transaction fee for each licence sold with the balance of the revenue being forwarded

- Saskatchewan fishing and hunting licenses: \$14,643,000 (FY 2009-2010).⁶⁸
- Manitoba: license sales and wildlife sundry: \$ 4,156,000 (FY 2009-2010).⁶⁹
- Ontario Fish & Wildlife Special Purpose Account⁷⁰: \$65,480,000 (FY 2009-2010).⁷¹
- Quebec: wildlife licenses: \$32,800,000 (FY 2009-2010).⁷²
- New Brunswick Wildlife Trust Fund + Trail Management Trust Fund: \$3,087,500 (FY 2009-2010).⁷³
- Nova Scotia: Fishing and Gaming licenses: \$1,000,000 (estimate FY 2010-2011).⁷⁴

There are numerous other innovative areas of private sector financing for biodiversity. These include biodiversity offsets, land conservation tax incentives, schemes for payment for ecosystem services (PES), and the sale of green products. However, experience (and data) related to these in Canada is limited at present. Therefore, no additional effort was made in this study to estimate financial flows from these areas.

It is worth noting that most of the estimates above largely do not include investments and expenditures made by the private sector related to many of the sustainable uses of biodiversity resources. For example, a case could be made to include private sector expenditures related to sustainable agriculture, forestry and fishing, just to name a few sectors. Unfortunately, at this point dependable, disaggregated national data for these sectors is not available. Attempting to estimate, for example, the % of total agriculture spending related to “sustainable use” of biological resources would not be prudent. But it would be important to note here that these three primary sectors of the Canadian economy represent over \$22.6 billion in annual economic activity.⁷⁵ If even 10% of this activity is directly related to the sustainable use of biological resources, this would more than triple the estimated biodiversity expenditures estimated above for the private sectors.

In regards to Canadian private sector expenditures for biodiversity made outside of Canada, this study did not find a reliable or practical source of information yet to estimate this figure.

(d) Non-governmental organizations, foundations, and academia:

to the Ministry or to a Delegated Authorized Organization. The Ministry reports revenue in Premiums, Fees and Licences on the Consolidated Statements of Operations net of IBM transaction fees of \$6.3 million.

⁶⁸ Ministry of Environment Annual Report 09-10. Saskatchewan.

⁶⁹ Ministry of Conservation. Annual Report 2009-2010. Manitoba.

⁷⁰ This Fund was created to ensure that revenues generated from the sale of fish and wildlife licenses is re-channeled for specific sustainable fish and wildlife management initiatives.

⁷¹ Ontario Ministry of Natural Resources. Results-based plan 2010-2011.

⁷² Ministry of Natural Resources and Wildlife. Annual Report 2009 - 2010 Quebec.

⁷³ Department of Natural Resources. Annual Report. 2009-2010. New Brunswick.

⁷⁴ Nova Scotia Department of Finance. Estimates and Supplementary Detail for the fiscal year 2011–2012

⁷⁵ Statistics Canada. Table 379-00231,2 - Gross domestic product (GDP) at basic price in current dollars, System of National Accounts (SNA) benchmark values, by North American Industry Classification System (NAICS), annual (data in millions)

	Millions of CAN\$ annual (FY 2009-2010)		
	Low estimate	High estimate	Average estimate
Non-governmental organizations, foundations, and academia	\$ 508.46	\$ 614.63	\$ 561.55
<i>Non-governmental organizations, foundations</i>	\$ 446.01	\$ 446.01	\$ 446.01
<i>Academia</i>	\$ 62.45	\$ 168.62	\$ 115.54

i. Non-governmental organizations, foundations:

There are several hundred, if not thousands of non-governmental organizations (NGOs) and foundations in Canada dedicated to activities related to the objectives of the CBD. However, there is no one comprehensive source of data on their nature or their revenues and expenditures. As a result, information had to be gathered on a case-by-case basis, mainly by reviewing each NGO's financial statements and/or annual reports. This obviously could not be completed for each and every organization, but the following list provides the main, largest biodiversity-related NGOs in Canada.

National NGOs	
The Nature Conservancy of Canada	\$182,736,812 ⁷⁶
Ducks Unlimited Canada	\$ 75,842,000 ⁷⁷
Canadian Wildlife Federation	\$11,017,000 ⁷⁸
World Wildlife Fund Canada	\$8,713,194 ⁷⁹
David Suzuki Foundation	\$6,655,661 ⁸⁰ (\$7,441,125 - \$785,464 spent on climate change)
EcoTrust	\$3,068,507 ⁸¹
Canadian Parks and Wilderness Society	\$3,206,107 ⁸²
Nature Canada	\$2,483,799 ⁸³
Wildlife Habitat Canada	\$2,089,388 ⁸⁴
Wildlife Preservation Canada	\$635,596 ⁸⁵
Forest Stewardship Council Canada	\$334,793 ⁸⁶
British Columbia	
Habitat Conservation Trust Foundation	\$6,015,311 ⁸⁷
Pacific Salmon Foundation	\$8,350,353 (\$9,949,792 – \$1,599,409 public funds) ⁸⁸
The Land Conservancy of British Columbia	\$5,135,782 ⁸⁹
Alberta	

⁷⁶ The Nature Conservancy of Canada Financial Statements, ending June 30 2010

⁷⁷ Ducks Unlimited Canada Annual Report 2010

⁷⁸ Canadian Wildlife Federation Financial Statements, ending February 28, 2010

⁷⁹ World Wildlife Fund Canada Combined Financial Statements, ending June 30, 2010

⁸⁰ David Suzuki Foundation Statement of Revenue and Expenses, ending August 31, 2010

⁸¹ EcoTrust Canada 2009 Annual Report

⁸² Canadian Parks and Wilderness Society Financial Statements, ending March 31, 2010

⁸³ Nature Canada Annual Report 2009-10, ending March 31, 2010

⁸⁴ Wildlife Habitat Canada Financial Statement ending March 31, 2010

⁸⁵ Wildlife Preservation Canada Annual Report 2009-10, ending December 31 2009

⁸⁶ Forest Stewardship Council Canada Annual Report 2009-2010

⁸⁷ Habitat Conservation Trust Foundation Financial Statements, ending March 31, 2010

⁸⁸ Pacific Salmon Foundation 2009 Annual Report

⁸⁹ The Land Conservancy of British Columbia Consolidated Financial Statements, ending April 30, 2010

Alberta Conservation Association	\$12,527,367 ⁹⁰
Saskatchewan	
Wascana Centre Authority	\$2,088,840 ⁹¹
Ontario	
Nature Ontario	\$2,492,094 ⁹²
Conservation Authorities	Expenditures less public funding⁹³
Ausable Bayfield	\$4,766,175 ⁹⁴
Central Lake Ontario	\$2,547,348 ⁹⁵ (\$5,660,774 * 0.45)
Cataraqui	\$1,070,704 ⁹⁶
Essex Region	\$4,455,000 ⁹⁷ (\$8,100,000 * 0.55)
Grey Sauble	\$1,251,934 ⁹⁸ (\$2,298,259 - \$1,046,325)
Lower Trent	\$292,526 ⁹⁹ (\$3,656,577 * 0.08)
Saugeen Valley	\$1,634,865 ¹⁰⁰ (\$3,336,461 * 0.49)
St. Clair	\$3,319,302 ¹⁰¹ (\$5,029,246 * 0.66)
Credit Valley	\$1,739,152 ¹⁰²
Ganaraksa Region	\$1,478,462 ¹⁰³ (\$2,789,551 * 0.53)
Halton	\$11,754,049 ¹⁰⁴ (\$20,265,602 * 0.58)
Kettle Creek	\$1,110,564 ¹⁰⁵ (\$1,735,257 * 0.64)
Long Point Region	\$2,267,970 ¹⁰⁶ (\$3,385,031 * 0.67)
Niagara Peninsula	\$2,050,012 ¹⁰⁷ (\$11,027,263 * 0.19)
Nottawasaga Valley	\$752,336 ¹⁰⁸ (\$2,786,433 * 0.27)
Toronto and Region	\$39,854,894 ¹⁰⁹ (\$ 92,685,800.00 * 0.43)
Grand River	\$15,792,000 ¹¹⁰ (\$33,600,000 * 0.47)
Lake Simcoe Region	\$2,294,169 ¹¹¹ (\$15,294,466 * 0.15)
Lower Thames Valley	\$550,632 ¹¹² (\$2,039,379 * 0.27)
Mattagami Region	\$191,000 ¹¹³

⁹⁰ Alberta Conservation Association Annual Report 2009/2010. p. 61 Alberta

⁹¹ Wascana Centre Authority Financial Statements, ending March 31, 2010

⁹² Nature Ontario Annual Report 2009-10

⁹³ The total expenditures of Conservation Authorities were multiplied by the % of their funds estimated to not originate from public sector sources according to each entity's annual report. This was done to avoid double-counting with data reported under "Domestic public sector".

⁹⁴ Ausable Bayfield conservation authority annual report 2010

⁹⁵ Central lake Ontario Conservation Authority Year in Review 2009

⁹⁶ Cataraqui Region Conservation Authority Financial Statements

⁹⁷ Essex Region Conservation Authorities Annual Report 2010

⁹⁸ Grey Sauble Conservation Authority Financial Statements, ended December 31, 2008

⁹⁹ Lower Trent Conservation Authority Annual Report 2010

¹⁰⁰ Saugeen Valley Conservation Authority Annual Report 2010

¹⁰¹ St Clair Conservation Authority Annual Report 2010

¹⁰² Credit Valley Conservation Authority Annual Report 2006

¹⁰³ Ganaraksa Region Conservation Authority Annual Report 2010

¹⁰⁴ Conservation Halton Public Accountability Report 2010

¹⁰⁵ Kettle Creek Conservation Authority Annual Report 2009

¹⁰⁶ Long Point Region Conservation Authority Annual Report 2010

¹⁰⁷ Niagara Peninsula Conservation Authority Annual Report 2008

¹⁰⁸ Nottawasaga Valley conservation Authority Annual Report 2005

¹⁰⁹ Toronto and Region Conservation Authority Annual Report 2009

¹¹⁰ Grand River Conservation Authority Budget Overview

¹¹¹ Lake Simcoe Region Conservation Authority Annual Report 2010

¹¹² Lower Thames Valley Conservation Authority Annual Report 2010

Nickel District	\$1,049,562 ¹¹⁴
Rideau Valley	\$2,152,860 ¹¹⁵
South Nation	\$2,829,304 ¹¹⁶
Upper Thames River	\$6,215,599 ¹¹⁷ (\$12,949,166 * 0.48)
<i>Sub-Total Ontario Conservation Authorities</i>	<i>\$111,420,419</i>
Québec	
Nature Québec (Citoyens pour la nature)	\$818,807 ¹¹⁸
Nova Scotia	
Ecology Action Centre	\$374,276 ¹¹⁹
TOTAL	\$446,006,106

ii. Academia:

Canada's universities and colleges also provide valuable resources that support the objectives of the CBD, both through research and through undergraduate and graduate education. Unfortunately, in regards to research limited data exists on amounts of expenditures specific to biodiversity and related sectors. As a result, no data has been included in this study for this area.

In regards to expenditures on biodiversity-related undergraduate and graduate education, Statistics Canada provides data for enrolment numbers in Canadian universities disaggregated by instructional programs. Two categories were identified that directly relate to the objectives of the CBD: "Agriculture, natural resources and conservation" and "Physical and life sciences and technologies". The number of students enrolled in each category was multiplied by the average tuition paid by Canadian students¹²⁰. Of note, this tuition does not include public funds provided by governments to support these programs, but come directly from private contributions of students and their families.

The category of "Physical and life sciences and technologies" would seem to encompass much more than biodiversity-related fields. As a result, only 25% of its value has been included and only in the high-end estimate.

The category of "Agriculture, natural resources and conservation" would seem to mostly include biodiversity-related fields, with the exception of training in conventional agriculture. As a result, 90% of its value has been included in the low-end estimate.

Agriculture, natural resources and conservation (2008/2009)

¹¹³ Mattagami Region Conservation Authority Annual Report 2010

¹¹⁴ Nickel District Conservation Authority Financial Statements, ending December 31, 2010

¹¹⁵ Rideau Valley Conservation Authority Annual Report 2009

¹¹⁶ South Nation Conservation Authority Annual Report 2008

¹¹⁷ Upper Thames River Conservation Authority Approved Budget 2011

¹¹⁸ Nature Quebec Annual Report 2009-10, ending August 31, 2010

¹¹⁹ Ecology Action Centre Annual Report 2009-10

¹²⁰ Statscan, Undergraduate tuition fees for full-time Canadian students, by discipline, by province

Program level	Number of students enrolled	Average tuition	Total expenditures
Undergraduate	11,586 ¹²¹	\$4,366 ¹²²	\$50,584,476
Graduate	4,740 ¹²³	\$3,967 ¹²⁴	\$18,803,580
Low-end estimate			\$69,388,056 x 90% = \$62,449,250

Physical and life sciences and technologies (2008/2009)

Program level	Number of students enrolled	Average tuition	Total expenditures
Undergraduate	73,842 ¹²⁵	\$4,682 ¹²⁶	\$345,728,244
Graduate	18,582 ¹²⁷	\$4,249 ¹²⁸	\$78,954,918
Sub-total			\$424,683,162 x 25% = \$106,170,791
High-end estimate			\$168,620,041

(e) International financial institutions:

All relevant Canadian contributions to international financial institutions have been included under (a) Official Development Assistance.

(f) United Nations organizations, funds and programmes:

All relevant Canadian contributions to United Nations organizations, funds and programmes have been included under (a) Official Development Assistance.

(g) Non-ODA public funding:

N/A

(h) South-South cooperation initiatives:

N/A

¹²¹ Statscan (477-0013), University enrolments by program level and instructional program

¹²² Statscan, Undergraduate tuition fees for full-time Canadian students, by discipline, by province

¹²³ Statscan (477-0013), University enrolments by program level and instructional program

¹²⁴ Statscan, Average graduate tuition fees for Canadian full-time students by faculty

¹²⁵ Statscan (477-0013), University enrolments by program level and instructional program

¹²⁶ Statscan, Undergraduate tuition fees for full-time Canadian students, by discipline, by province

¹²⁷ Statscan (477-0013), University enrolments by program level and instructional program

¹²⁸ Statscan, Average graduate tuition fees for Canadian full-time students by faculty

(i) **Technical cooperation.**

All relevant Canadian contributions to technical cooperation have either been included under (a) Official Development Assistance or (b) Domestic Budgets.

**Consolidated annual Canadian financial flows for achieving
the CBD's three objectives**

	Millions of CAN\$ annual (FY 2009-2010)		
	Low estimate	High estimate	Average estimate
Official Development Assistance (ODA)	\$ 38.25	\$ 233.29	\$ 135.77
Government of Canada	\$ 14.34	\$ 148.61	\$ 81.48
<i>CIDA</i>	\$ 10.80	\$ 103.46	\$ 57.13
<i>Finance Canada</i>	\$ 0.92	\$ 20.74	\$ 10.83
<i>IDRC</i>	\$ 1.45	\$ 23.24	\$ 12.35
<i>Environment Canada</i>	\$ 0.70	\$ 0.70	\$ 0.70
<i>Parks Canada</i>	\$ 0.47	\$ 0.47	\$ 0.47
International financial institutions and United Nations	\$ 23.91	\$ 84.68	\$ 54.30
<i>Global Environment Facility</i>	\$ 16.63	\$ 22.05	\$ 19.34
<i>CGIAR</i>	\$ 2.85	\$ 48.32	\$ 25.59
<i>FAO</i>	\$ 3.92	\$ 10.53	\$ 7.23
<i>UNDP</i>	\$ -	\$ 3.01	\$ 1.51
<i>UNESCO</i>	\$ 0.51	\$ 0.77	\$ 0.64
Domestic public budgets at all levels	\$ 4,189.62	\$ 9,421.86	\$ 6,805.74
Federal	\$ 2,442.81	\$ 2,998.51	\$ 2,720.66
<i>Agriculture and Agri-food Canada</i>	\$ 177.90	\$ 177.90	\$ 177.90
<i>Environment Canada</i>	\$ 178.90	\$ 372.10	\$ 275.50
<i>Parks Canada</i>	\$ 716.07	\$ 716.07	\$ 716.07
<i>Natural Resources Canada</i>	\$ 10.90	\$ 280.90	\$ 145.90
<i>Fisheries and Oceans Canada</i>	\$ 1,270.10	\$ 1,270.10	\$ 1,270.10
<i>Indian and Northern Affairs</i>	\$ 55.50	\$ 148.00	\$ 101.75
<i>Canadian Museum of Nature</i>	\$ 33.44	\$ 33.44	\$ 33.44
Provincial	\$ 1,463.42	\$ 2,835.14	\$ 2,149.28
<i>British Columbia</i>	\$ 415.08	\$ 858.84	\$ 636.96
<i>Alberta</i>	\$ 182.09	\$ 231.22	\$ 206.66
<i>Saskatchewan</i>	\$ 22.08	\$ 187.30	\$ 104.69
<i>Manitoba</i>	\$ 141.48	\$ 168.43	\$ 154.96
<i>Ontario</i>	\$ 253.16	\$ 358.98	\$ 306.07
<i>Quebec</i>	\$ 179.58	\$ 718.18	\$ 448.88
<i>New Brunswick</i>	\$ 27.87	\$ 57.68	\$ 42.78
<i>Prince Edward Island</i>	\$ 10.61	\$ 10.61	\$ 10.61
<i>Nova Scotia</i>	\$ 82.75	\$ 95.18	\$ 88.97
<i>Newfoundland & Labrador</i>	\$ 51.37	\$ 51.37	\$ 51.37
<i>Yukon</i>	\$ 27.50	\$ 27.50	\$ 27.50
<i>Northwest Territories</i>	\$ 54.12	\$ 54.12	\$ 54.12
<i>Nunavut</i>	\$ 15.73	\$ 15.73	\$ 15.73
Local governments	\$ 283.39	\$ 3,588.21	\$ 1,935.80
Private sector	\$ 686.80	\$ 824.16	\$ 755.48
<i>Business expenditures</i>	\$ 140.80	\$ 278.16	\$ 209.48
<i>User fees (parks fees, licenses)</i>	\$ 546.00	\$ 546.00	\$ 546.00
Non-governmental organizations, foundations, and academia	\$ 508.46	\$ 614.63	\$ 561.55
<i>Non-governmental organizations, foundations</i>	\$ 446.01	\$ 446.01	\$ 446.01
<i>Academia</i>	\$ 62.45	\$ 168.62	\$ 115.54
International financial institutions (non-ODA)	\$ -	\$ -	\$ -
United Nations organizations, funds and programmes (non-ODA)	\$ -	\$ -	\$ -
Non-ODA public funding	\$ -	\$ -	\$ -
South-South cooperation initiatives	\$ -	\$ -	\$ -
Technical cooperation	\$ -	\$ -	\$ -
TOTAL	\$ 5,423.13	\$ 11,093.94	\$ 8,258.54

2. **Number of countries that have: (a)Assessed values of biodiversity, in accordance with the Convention; (b)Identified and reported funding needs, gaps and priorities; (c)Developed national financial plans for biodiversity; (d)Been provided with the necessary funding and capacity-building to undertake the above activities:**
Not applicable – indicator intended for developing countries.
3. **Aggregated estimate of annual Canadian biodiversity-related financial flows:**
It is estimated that annual Canadian financial flows related to the objectives of the CBD are from \$5,423.13 million to \$11,093.94 million, with an average of \$8,258.54 million.
4. **Amount of domestic financial support, per annum, in respect of those domestic activities which are intended to achieve the objectives of this Convention:**
It is estimated that Canada provides between \$5,384.88 million and \$10,860.65 million annually in domestic resources to achieve the objectives of the CBD in Canada.
5. **Amount of funding provided through the Global Environment Facility and allocated to biodiversity focal area:**
As indicated above, Canada provides annually an estimated \$16.63 to the GEF’s biodiversity focal area, and up to \$22.05 to the GEF for all biodiversity-related activities.
6. **Level of CBD and Parties’ support to other financial institutions that promote replication and scaling-up of relevant successful financial mechanisms and instruments:**
Not applicable
7. **Number of international financing institutions, United Nations organizations, funds and programmes, and the development agencies that report to the Development Assistance Committee of Organisation for Economic Co-operation and Development (OECD/DAC), with biodiversity and associated ecosystem services as a cross-cutting policy:**
Not applicable
8. **Number of Parties that integrate considerations on biological diversity and its associated ecosystem services in development plans, strategies and budgets:**
It is believed that this question is intended for developing country Parties. Not applicable. However, Canada can highlight that its recent Federal Sustainable Development Strategy has the objective of integrating government wide actions and results, linking sustainable development planning and reporting to the Government's core expenditure planning reporting system, and providing effective measurement, monitoring and reporting tools to track and report on progress.
9. **Number of South-South cooperation initiatives conducted by developing country Parties and those that may be supported by other Parties and relevant partners, as a complement to necessary North-South cooperation:**
Not applicable

10. Amount and number of South-South and North-South technical cooperation and capacity-building initiatives that support biodiversity:

Specific information was not available on the amount and number of North-South technical cooperation and capacity-building initiatives supported by Canada. However, a portion of Canada's contribution to the GEF is used for these types of activities.

11. Number of global initiatives that heighten awareness on the need for resource mobilization for biodiversity:

Not applicable

12. Amount of financial resources from all sources from developed countries to developing countries to contribute to achieving the Convention's objectives:

As indicated above, it can be estimated that Canada provides at least between \$38.25 million to \$233.29 million annually to developing countries to achieve the Convention's objectives.

In addition to these estimates, which are directly applied to meeting the Convention's objectives, there are additional sources of financing that positively contribute to the Convention on Biological Diversity. These additional sources may have been allocated to an alternative primary initiative, such as climate change or health, and have biodiversity as a secondary or even tertiary goal. In an effort to avoid counting the same flows towards more than one initiative, we have not accounted for funds that do not have the objectives of the Convention as a primary objective. In effect, we have not accounted for co-benefits from other financial flows in reporting given the methodology supported within this document. While this approach helps to limit the risk of double counting, it also prevents a more accurate assessment of total funds contributed towards meeting the Convention's objectives from being realized.

13. Amount of financial resources from all sources from developed countries to developing countries towards the implementation of the Strategic Plan for Biodiversity 2011-2020:

Not applicable – as Strategic Plan has just recently been negotiated.

14. Resources mobilized from the removal, reform or phase-out of incentives, including subsidies, harmful to biodiversity, which could be used for the promotion of positive incentives, including but not limited to innovative financial mechanisms, that are consistent and in harmony with the Convention and other international obligations, taking into account national social and economic conditions:

Canada does not currently monitor the amount of resources mobilized from the removal, reform or phase-out of incentives harmful to biodiversity.

15. Number of initiatives, and respective amounts, supplementary to the financial mechanism established under Article 21, that engage Parties and relevant organizations in new and innovative financial mechanisms, which consider intrinsic values and all other values of biodiversity, in accordance with the objectives of the Convention and the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising out of Their Utilization:

Not known at present.

16. Number of access and benefit-sharing initiatives and mechanisms, consistent with the Convention and, when in effect, with the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising out of Their Utilization, including awareness-raising, that enhance resource mobilization:
Not applicable to Canada at present.