Part I: Questionnaire for Country Participants

Name: Martin Lemire
Affiliation: Statistics Canada, Environment Accounts and Statistics Division
Country: Canada

1. What types of environmental and economic accounts have already been implemented in your country and for how long? (If none, go to question 6)

Comprising three major components, the **Canadian System of Environmental and Resource Accounts** (CSERA) represents a comprehensive framework for linking the economy and the environment through physical and monetary statistics. The three components of the framework are:

- The **Natural Resource Stock Accounts** measure quantities of natural resource stocks (subsoil and timber) and the annual changes in these stocks due to natural and human processes. 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 Canadian National Balance Sheet Accounts. Data series are generally from 1976-2001.

- The **Material and Energy Flow Accounts** record, in physical terms only, the flows of materials and energy – in the form of natural resources (energy and water) and wastes (GHG) – between the economy and the environment. The Material and Energy Flow Accounts are linked directly with the Input-Output Accounts. This linkage allows the calculation of important indicators of the resource and waste intensiveness of economic activity. Data series are 1981, 1986, 1991 and 1996 for water. As for energy and GHG, it is 1990-2000.

- Finally, the **Environmental Protection Expenditure Accounts** identify current and capital expenditures by business, government and households for the purpose of protecting the environment. These accounts measure both the financial burden associated with environmental protection, plus the contribution of environmental protection to economic activity from a demand-side perspective. Data series are for mid-1990 to 2002.

The accounts were mainly developed during the period 1992-1997 and were first released in 1997.

2. Have you used or are you aware of any use made by others in your country of the handbook of National Accounting *Integrated Environmental and Economic Accounting 2003*, commonly referred to as SEEA-2003 and/or of the handbook of National Accounting *Integrated Environmental and Economic Accounting – An Operational Manual* (2000)? How useful were these documents in the implementation of the accounts?

Canada's environmental accounts were developed during the same period as the SEEA was undergoing its own development. The accounts compiled for the country by Statistics Canada are broadly coherent with the SEEA-2003 even though they were not based directly on it. Now that the SEEA-2003 is complete, Statistics Canada will make greater efforts to apply its recommendations in the on-going development of Canada's accounts.

We are not aware of any (if any) use made by others in our country of both handbooks you are referring to.

3. Please, describe the major difficulties/constraints that have been encountered during the compilation of these accounts (e.g., financial support, lack of human resources, training, etc.).

There were three major difficulties/constraints: lack of data; lack of human and financial resources; and to a lesser extent lack of knowledge.

4. Was the implementation of the accounts driven from a policy demand or was it supply driven?

They were policy driven at first. The Government of Canada, under the auspices of *Canada's Green Plan for a Healthy Environment*, asked Statistics Canada in 1991 to initiate development of a system of environmental and resource accounts that would quantify the links between the environment and the economy. Five years of funding was provided to Statistics Canada to develop these new accounts. This funding commenced in 1992 and continued through 1997. However, this "policy" has never been fully implemented.

5. Have environmental-economic accounts been used for policy making in your country? If so, what were the policy issues?

The accounts have not been used for policy-making *per se*.

Here are a few examples on how our clients have used the data.

- Finance Canada has made extensive use of the greenhouse gas and energy accounts in its research into climate change.
- The natural resource stock accounts (particularly those in monetary units) have been used in a number of instances by those interested in calculating new measures of Canada's wealth.
- Officials in Agriculture and Agri-food Canada have incorporated one of the environmental indicators on land use change directly into a report on the state of agriculture in Canada.
- The academic community has also made use of the environmental accounts data in studies related to water consumption, greenhouse gas emissions, energy and the so-called "ecological footprint."
- Most recently, the National Round Table on the Environment and the Economy has recognized the value of the accounts by recommending them as part of the foundation for a new sustainable development information system for Canada.

6. Does your country have future plans for starting/continuing and/or expanding the implementation of environmental-economic accounting? Please describe.

We are planning to continue with our current program. At the moment, annual update (including methodological changes) of the accounts is the main activity (in comparison with the 1992-1997 development phase). In the next year or two, we are planning to bring diamonds and offshore crude oil and gas abstractions into the subsoil accounts. Also, we will explore adding other emissions data in the flow accounts. Development continues for land accounts as well as water accounts.

7. What seems to be the major constraints in further implementing environmental-economic accounting in your country?

In the case of diamonds and offshore crude oil and gas, the main constraints are the confidentiality and quality of the data. As for emissions data, the main issues are data quality and data coverage. Lack of (permanent) funding is also an important issue.

8. In your opinion, what should be the role of the Task Force on environmental-economic accounting?

The Task Force should serve as a mechanism for bringing together those responsible for setting environmental and/or economic policy with those responsible for compiling integrated environmental-economic accounts. It should promote the sharing of country experience, the identification of constraints to greater use of the accounts and the promotion of shared understanding of the strengths and limitations of the approach.

9. In your opinion, which activities of the Task Force would best facilitate in your country the implementation of environmental-economic accounting and the promotion of its uses at the policy level?

Preparation of reports demonstrating the relevance of environmental-economic accounts to policy making. Workshops where policy makers and statisticians can discuss issues of common interest. Promotion of closer working relationships among environmental policy makers and statisticians in international agencies.

Additional comments: