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# Environment statistics framework development and related implementation priorities in Canada

**Joint UNECE/OECD Seminar on Implementation of SEEA**

October 14-15, 2015

Geneva, Switzerland

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# Priority setting for Environmental Accounts: past, present, and future



- External initiatives
  - 1990-1997 Canada's Green Plan
  - 2000-2007 Environment and Sustainable Development Indicators
- Internal initiatives
  - 2011-2013 Measuring Ecosystem Goods and Services
- Moving forward
  - 2014 - Environment Statistics Framework
  - SNA 2008 recommendation on natural resource assets

# The Green Plan

## Initiation

1990 Federal Budget

## Objectives

To initiate development of a system of environmental and resource accounts that would quantify the links between the environment and the economy.

## Outcome

*Canadian System of Environmental and Resource Accounts*

**Accounts:** Physical Flows (water, energy, GHG)

Assets (minerals, energy, timber), Land

Related indicators

**Surveys:** Environmental Protection Expenditures,  
Environmental Goods and Services

# Environment and Sustainable Development Indicators



## Initiation

2000 Federal Budget

## Objectives

To find ways to track the impact of current economic practices on the natural and human assets that will be needed by future generations of Canadians.

## Outcome

**Reports:** *2003 State of the Debate Report,*

*2006-08 Canadian Environmental Sustainability Indicators*

**Indicators:** *Air Quality, Water Quality, GHG Emissions*

**Surveys:** *Households and the Environment, Industrial Water Use, Agricultural Water Use, Drinking Water Treatment Plants*

**Links:** Ongoing contribution to Federal Sustainable Development Strategy indicators

# Measuring Ecosystem Goods and Services



## Initiation

2011 Interdepartmental funding request

## Objectives

To develop experimental ecosystem accounts with the specific objective of supporting policy needs related to the valuation of ecosystem goods and services.

## Outcome

**Reports:** *Human Activity and the Environment 2013: Measuring ecosystem goods and services in Canada*

**Infrastructure:** MEGS geospatial database, MEGS community of practice

# The Environment Statistics Framework

## Initiation

2009 request of the Chief Statistician

## Objectives

To develop a framework for environment statistics to serve as a guide to future investment in this subject matter area.

## Outcome

**Reports:** A framework compatible with SEEA based on natural capital: *A Framework for National Environmental Statistics*.

**Outreach:** As part of the framework development process, a workshop was held to discuss the priorities for implementation, with an emphasis on possible new data collection and the development of new statistical infrastructure. These priorities are detailed in the coming slides.



# Environment accounts implementation priorities of data users



## Data priorities:

- Ecosystems and ecosystem goods and services.
- Water : integrating and compiling water use and water availability
- Climate change: impact of climate change/vulnerability

## Infrastructure priorities:

- Structures to facilitate collaboration with other data partners to enhance stability, quality assurance and coherence in the area of environmental statistics.
- Improve dissemination vehicles: more types of geo-spatial information, better integration of statistics on natural capital

# Priorities for implementing the Framework



Priority 1) Increase statistical coherence with outside Data Partners:

- Create an ongoing outreach and priority-setting mechanism for collaboration on data coherence.
- Will ensure that interdepartmental cooperation is forthcoming and priorities are shared.

Priority 2) Regularly produce key ecosystem accounts

- Using existing, peer-reviewed experimental work (e.g., produced through MEGS), regularly produce new accounts on renewable water stocks and on land cover/ecosystems in accordance with SEEA guidelines.



# Priorities for implementing the Framework



Priority 3) Comprehensive plan for statistics on key material and residual flows

- Create a business plan to improve sector and industry estimates of energy use, water use and selected residual flows (e.g., solid waste).

Priority 4) Comprehensive plan for statistics on environmental activity

- Create a business plan to propose a comprehensive approach to environmental activity - monetary transactions that may be considered environmental in nature.

# Priorities for implementing the Framework



Priority 5) Improve dissemination options regarding natural capital

- Create more integrated information products on natural capital, and address key users such as analysts.

Overall goals of the proposal:

- Address most of the recommendations identified by data users at the workshop.
- Leverage successful work on, for example, physical flow accounts with a focus on current data gaps.
- Leverage experimental work on the geodatabase and on the water yield.
- Use the SEEA to provide the basis for expanding survey results into accounts – e.g., environmental activity, solid waste.

# Recent developments: Quarterly asset accounts



## Initiation

Internal decision to implement SNA 2008 recommendations related to natural resource asset accounting.

## Objectives

To harmonise the quarterly sectorised balance sheet estimates with the annual consolidated balance sheet.

## Outcome

**Reports:** Methodological paper: *Natural resource wealth statistics in the National Balance Sheet Accounts (upcoming)*

**Data:** Inclusion of natural resource asset values in the quarterly sectorised balance sheet (*beginning December 2015*).

# To summarise, priorities have come from...

## Outside

Regulations, policy needs, international standards (e.g. SNA)

## Inside

Big ideas, projects, pilot studies

## Both

Seeking partnerships, dialogue, communities of practice