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Policy uses of environmental accounts in Canada

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Outline

Two recent examples of policy uses of the accounts:

- 1. National-level environmental assessment of trade agreements (Department of Foreign Affairs, Trade, and Development)**
 - 1. Purpose and legislation**
 - 2. Objectives**
 - 3. Methodology and the SEEA role**
 - 4. Results**
- 2. Provincial policy development for Greenhouse Gas emissions (Ontario Ministry of Finance)**

National-level environmental assessment of trade agreements

Purpose: *To identify potential positive and negative impacts on the environment resulting from a proposed trade agreement.*

Related legislation: *Environmental Assessments are guided by the Cabinet Directive on the Environmental Assessment of Policy, Plan, and Program Proposals (updated in 2010) and the 2001 Framework for Conducting Environmental Assessments of Trade Negotiations.*

These documents are available on the Foreign Affairs, Trade and Development Canada's Environmental Assessments web site.

Objectives of the Framework

The 2001 Framework for Conducting Environmental Assessments of Trade Negotiations has two objectives:

First, it helps trade negotiators integrate environmental considerations into the negotiating process by calling for the identification of potential positive and negative environmental impacts of trade negotiations.

Second, it provides a means to address public concerns about the environmental effects of trade negotiations by documenting how the environment is considered during negotiations.

Overall, the environmental assessment contributes to ensuring greater coherence between trade and environment policies.

EA Methodology (1)

A four-step methodology is applied:

- 1. Identification of the economic effects of the negotiation (input-output based multiregional Computational General Equilibrium model)**
- 2. Identification of the likely environmental impacts of such changes (via link to SEEA Physical Flow Accounts)**
- 3. Assessment of the significance of the likely environmental impacts**
- 4. Identification of enhancement/mitigation options to inform the negotiations**

EA Methodology (2)

During the *Identification of the economic effects* step, five different types of economic effects are considered. These are:

1. **scale effects**
2. **structural effects**
3. **product effects**
4. **technology effects** and
5. **regulatory effects**

Physical flow accounts are then linked with the different economic effects to estimate environmental impacts.

Types of economic effect measured (1)

Scale effects (measure the change in overall amount of production and consumption)

Structural effects (quantify shifts in production and consumption toward different sectors in the economy)

Product effects (estimate changes in the types of products that are produced or consumed)

Types of economic effect measured (2)

Technology effects (account for changes in potential technologies used as a result of the negotiation), and

Regulatory effects (measures impacts on current and future policy development and implementation).

Results

Summary of Environmental Impacts of the Canada-EU Comprehensive Economic and Trade Agreement (CETA)

	Scale Effect	Composition Effect	Total CETA-Induced Effect		Technique Effect	Total Effect, 2014
GHG Emissions (kilotonnes of CO₂ eq)	3,681	-1,375	2,306	0.38%	-393	1,913
Energy Use (terajoules)	51,820	-20,835	30,985	0.36%	-677	30,308
Water Use ('000 m³)	212,401	174,817	387,218	1.10%	N/A	387,218

The conclusion was that the quantitative analysis showed that the net impact of increased bilateral trade with the EU on Canada's environment would be minor based on projected changes in GHG emissions, energy use and water use.

<http://www.international.gc.ca/trade-agreements-accords-commerciaux/agr-acc/eu-ue/initialea-ceta-aecg-eeinitiale.aspx?lang=eng>

Provincial policy development for Greenhouse Gas emissions and energy



- **Statistics Canada's environmental and energy accounts enable the Ministry of Finance to quantify some of the links between the economy and the environment.**
- **This improves decision making in many policy areas including natural resource management, climate change and energy policy.**

Provincial policy development for Carbon Pricing

- **The Ontario emission estimates by industry form the basis for Ministry of Finance analysis such as:**
 - **The impact of carbon pricing on business costs by detailed sector.**
 - **The impact of carbon pricing on households.**
 - **Energy intensity and trade exposure sector analysis in the context of business competitiveness for Ontario's cap-and-trade program.**

Provincial macroeconomic modelling for Greenhouse Gas emissions

- These estimates are also aggregated to 24 industry sectors to form the basis for the Ministry of Finance's macroeconomic modelling analysis of environmental policy in Ontario and them to:
 - Produce reference case fuel use and emissions forecasts by sector.
 - Calculate potential carbon proceeds estimates.
 - Estimate the dynamic economic and environmental impact of carbon pricing options on business sectors and households.

Questions?

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