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Canada's road map on climate change statistics

Expert Forum for producers and users of climate change-related statistics

**Carolyn Cahill, Assistant Director,
Division of Environmental, Energy and Transportation Statistics**
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Overview

Canadian policy context

Status quo and new work on the following road map priorities in the following areas:

- GHG inventories
- Other climate change-related statistics
- Statistical infrastructure and capacity

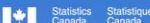
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Canadian policy context

- New federal government priority on climate change and clean technology
- Focus on a “Pan-Canadian” approach to climate change policy
- Strong, centralized efforts to measure outcomes of federal policies



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GHG inventories – Canadian context

- Energy balances produced by Statistics Canada
- National GHG inventory report produced by federal environment ministry (Environment and Climate Change Canada)

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GHG inventories – road map priorities (I)

“Improve data on waste, production of heat and electricity for own-use, and from **renewable energy sources**”

- Government has requested Statistics Canada recommendations to improve data on renewable energy (beyond large electricity generators)
- Similar study on biofuels data

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GHG inventories – road map priorities (II)

“Reach out to national agencies responsible for GHG inventories”

- Permanent analysis team has been formed to develop recommendations to continually improve the energy balance report
- One area of improvement: disposition data among smaller provinces and territories. Important given the role of sub-national governments to Canadian climate change policy


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Improving other climate change statistics

- Physical flow accounts on energy use and GHG emissions
- Land accounts
- Clean technology statistics

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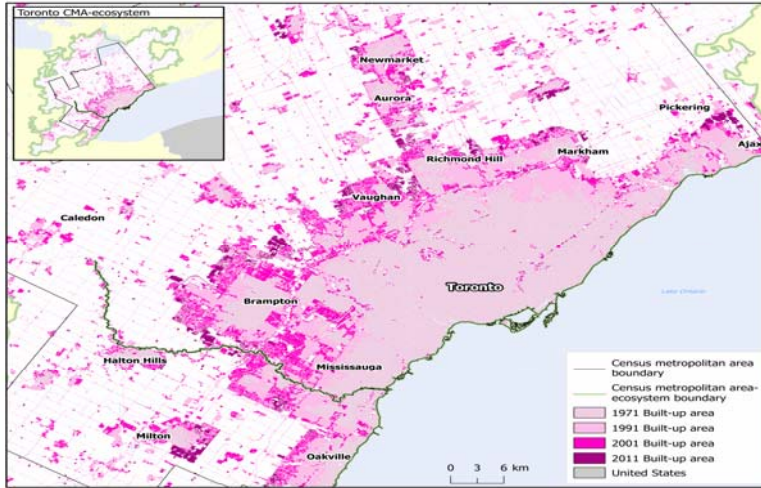
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“Produce statistics for new geographical areas” (I)

- Carbon pricing policy already takes place at the provincial level of government in Canada:
 - Cap and trade system (Ontario, Quebec)
 - Carbon tax (British Columbia, Alberta)
- Federal government has declared that a national carbon price will be set, with each province instituting its own mechanism
- Using provincial supply-use tables to produce provincial PFA estimates for energy use, GHG emissions, water use

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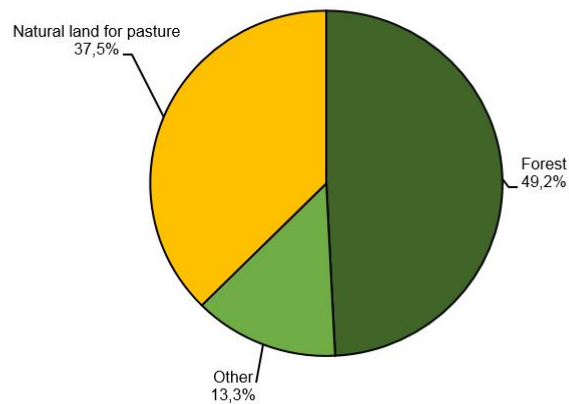
“Produce statistics for new geographical areas” (II)




Note: Sources for 1971 built-up area do not contain the same level of detail as the more recent years.
Sources: Statistics Canada, Environment, Energy and Transportation Statistics Division, 2016, special tabulation of data from Natural Resources Canada (NRCAN); Canada Centre for Remote Sensing (CCRS), 1999, *Canada Land Inventory: CLI Land Use (circa 1966)*, http://ftp2.cits.rncan.gc.ca/pub/geotit/cli_250k/landuse/ (accessed September 15, 2015); NRCAN, CCRS, 1999, *Canada Land Use Monitoring Program (CLUMP): Land Use (1971)*, http://ftp2.cits.rncan.gc.ca/pub/geotit/clump/clump_1971/ (accessed September 15, 2015); Agriculture and Agri-Food Canada, 2015, *Land Use 1990, 2000 and 2010*, <http://open.canada.ca/data/en/dataset/18e3ef1a-497c-40c6-b326-aac1a34a0dec> (accessed September 16, 2015); NRCAN, Canada Centre for Mapping and Earth Observation, 2014, *CanVec+*, <http://ftp2.cits.rncan.gc.ca/pub/canvec+/shape/> (accessed August 10, 2015); United States Census Bureau, 2014, *Digital cartographic file in shapefile format – States*, file: cb_2014_us_state_500k.zip, http://www.census.gov/geo/maps-data/data/cbf/cbf_state.html (accessed October 29, 2015).

“Produce statistics for new geographical areas” (III)

Natural and semi-natural land lost to settled area, by selected land class, Toronto census metropolitan area-ecosystem (CMA-E), 1971 to 2011



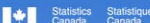




Expanding the land accounts – proposed Census of the Environment

Ongoing and comprehensive register of Canada’s ecosystems that would ultimately measure and track the total value of these assets and related ecosystem services.

- Integrated into Canada’s national statistical system
- One year’s worth of seed funding, with initial interest from other federal departments
- Would respond to “ **Develop statistics to address climate change adaptation – Consider how to contribute to the on-going efforts to monitor biodiversity and ecosystems**”

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Other Canadian priority – clean technology

Closely linked to climate change policy:

- Explicit mentions in five Ministerial mandate letters
- Budget 2016 provided funding to develop a statistical framework that regularly publishes information on the clean technology sector’s economic contributions to the Canadian economy and help the Government track progress towards clean technology objectives



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Clean technology products

- Greatly expanded Survey of Environmental Goods and Services
- Satellite account focussing on the clean technology sector

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Clean technology and international comparability



Need to balance the Canadian context:

- Desire to track the economic success of the sector
- Pan-Canadian working group driving the need for a federal government consensus on what is included in the sector

... with the international context:

- How SEEA defines the Environmental Goods and Services Sector (EGSS)
- EGSS tables produced by EU countries

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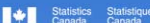

 

Statistical infrastructure and capacity

“ Modify NSO’s organizational structure ”

- Environment accounts and survey team has long been grouped together.
- Tighter relationship between energy and environment statistics team, since now in the same division.
- Working to increase StatCan’s capacity for statistical geomatics – environment program one of the pockets of innovation in this area

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Some future gaps

- Addressing the recommendations identified in various studies (renewable energy, biofuels)
- Analysing transportation-related statistics in a climate change context
- Variety of own-use statistics (e.g., waste to energy, provision of environmental protection services)
- Government spending on climate change policy – working on adding environmental detail using the COFOG

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Thank you!

Carolyn Cahill, carolyn.cahill@canada.ca