Linking the Canadian Tourism Satellite Account with the Canadian System Environmental-Economic Accounts

4.5 Pilot study progress

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Exploratory results- Tourism activities

<table>
<thead>
<tr>
<th></th>
<th>Tourism GVA</th>
<th>Jobs</th>
<th>Energy use</th>
<th>GHG emissions</th>
<th>Water use</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2.0%</td>
<td>3.8%</td>
<td>3.5%</td>
<td>6.2%</td>
<td>0.1%</td>
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</tbody>
</table>
Presentation outline

- Why link the Canadian Tourism Satellite Account and Canadian System of Economic-Environmental Accounts
- Purpose of study
- Data Sources and Methods
- Considerations
- Next steps

Why link Canadian Tourism Satellite Account and Canadian System of Economic-Environmental Account

- To develop a Statistical Framework for Sustainable Tourism
- Obtain credible, consistent and international comparable measures of tourism and the environment

Economic information

Canadian Tourism Satellite Account (CTSA)

Environmental information

Canadian System of Environmental-Economic Accounts (CSEEA)

Both of these Accounts are anchored in the traditional Canadian System of Macroeconomic Accounts
Purpose of Study

- Extends previous exploratory study by Statistics Canada
- Full link of all tourism activity in Canada
- National data for 2012
- Determine and understand complexities of linking two accounts
- Develop exploratory estimates

Data Sources

- Canadian Tourism Satellite Account
  - Tourism supply, GDP and employment, tourism demand
    - Supply and Use tables, business surveys, various administrative data
    - Travel surveys, both domestic and international
- Canadian System of Environmental-Economic Accounts
  - Water use, Energy use, Greenhouse gas emissions
    - Various surveys and administrative data
Canadian System of Environmental-Economic Accounts

- Comprehensive framework for relating the economy and the environment
  - United Nations System of Environmental-Economic Accounting 2012- Central Framework

- Ecosystem Accounting
- Asset accounts
- **Physical Flow Accounts**
  - Environmental Activity Accounts
  - Various includes applications and extensions

Physical Flow Account

- Measures the physical supply and use of natural resources, products and residuals between the Canadian economy and the environment

- Accounts have been developed for water use, energy use and greenhouse gas emission
Methodology

- CTSA and the CSEEA follow the same industry classification

- Tourism GVA ratio - tourism’s share of each industry in the economy
  - tourism GVA of industry X / Total GVA of industry X (including tourism and non-tourism activities).

Methodology for tourism industries

- To get environmental measures of tourism for tourism industries

- Water use industry Y * Tourism GVA ratio of industry Y

- Assumption: the share of industry value added directly attributable to tourism equals the share of industry gross output due directly to tourism
Methodology for other industries

- To get environmental measures of tourism for other industries
  - goods and service purchased by visitors but produced by non tourism industries

- Tourism spending on these goods and services is assigned to their producing industry
- Tourism spending by industry * share of primary inputs
- Tourism GVA ratio is obtained for each industry

- Water use industry X * Tourism GVA ratio of industry X

Key assumption of this method

- Share of industry water use, energy use and GHG emissions due to tourism is same as the tourism share of GVA

- Rate of use of the water, and energy as well as greenhouse gas emissions are the same in both the tourism and non-tourism activities of within a given industry
Considerations

- Used tourism share of industry GVA for total tourism demand but can use domestic and exports
- Non-market production of accommodation and transportation
- SNA “production boundary” to spatial phenomenon (GHG emissions)

Next Steps

- Use tourism share of industry GVA for total domestic and exports
- Further fine-tuning of linkage between TSA and SEEA as work progresses on framework.
- Must also consider the positive effects of tourism on the environment – conservation and preservation of historical sites, creation of national parks or wildlife sanctuaries.
Thank you!!!