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

4.5 Pilot study progress

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17th meeting of the Committee on Statistics and TSA
 Madrid, Spain
 January 24, 2017

Exploratory results- Tourism activities

Tourism GVA	Jobs	Energy use	GHG emissions	Water use
2.0%	3.8%	3.5%	6.2%	0.1%



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
 - $\text{tourism GVA of industry X} / \text{Total GVA of industry X}$ (including tourism and non-tourism activities).



Methodology for tourism industries

- To get environmental measures of tourism for tourism industries

- $\text{Water use industry Y} * \text{Tourism GVA ratio of industry Y}$

- 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!!!