

# Ontario Network on Ecosystem Services

MAINSTREAMING ECOSYSTEM SERVICES IN ONTARIO: WHAT'S NEEDED AND  
WHAT'S AVAILABLE?

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[www.ONEcosystemServices.ca](http://www.ONEcosystemServices.ca)

A SYNTHESIS REPORT BY JENNIFER WANG



## Introduction

On November 13, 2012, the Ontario Network on Ecosystem Services (ONES) hosted their second annual forum, Mainstreaming Ecosystem Services. The purpose of the forum was to bring together people from a range of backgrounds to discuss various topics related to mainstreaming ecosystem services in Ontario, including:

- What information is currently available and what is needed?
- How is the rest of the world engaging with ecosystem services?
- What strategies should be used to engage Ontarians?
- How should ONES support the mainstreaming of ecosystem services?

Jo-Anne Rzadki (Conservation Ontario) welcomed the participants to the forum and then provided a brief description of ONES and the agenda for the program.

## Ecosystem Services 101

Eric Miller (Green Analytics) presented an overview of ecosystem services, including definitions of ecosystem goods and services, their importance in economics and conservation, and the state of ecosystem services in Ontario. In recent years, there has been an increase in publications on ecosystem services, such as the recently released report *The Economics of Ecosystem Services and Biodiversity in Ontario (TEEBO)* which is currently available on the Ontario Ministry of Natural Resources website.

## Panel #1: What information is available and what is needed?

**Panelists:** *Andreas Link (Ontario Ministry of Natural Resources), Judi Brouse (Muskoka Watershed Council), Mark Henry (Statistics Canada)*

**Moderated by** *Tatiana Koveshnikova (Credit Valley Conservation Authority)*

Andreas Link discussed the use of geospatial metadata to calculate the values of ecosystem services for government use in making policy and management decisions. The data is now available through Land Information Ontario. Currently, there is a need for improvement of primary data at the local and regional levels to increase the confidence in using the values in analysis.

Judi Brouse identified information gaps about ecosystem services relevant to Muskoka area and the rest of the sizable 5E eco-region. She stressed the importance of considering how this information might be interpreted in a local context, especially in the Muskoka where there high market assessments for land coincide with low average incomes, so there is a perception of a high opportunity cost of protection. The importance of the intrinsic value of spiritual renewal in nature was stressed as people recognize why nature is important and what attracts people to areas like hers.

Mark Henry provided an update on MEGS, a Statistics Canada project to develop ecosystem accounts to support policy needs of federal agencies including Environment Canada and Natural Resources Canada. This project will focus on compiling comprehensive statistics for ecosystem services and establishing a framework including classification and organization of data. Statistics Canada is also working with the United Nations Statistics Division on environmental accounting and is a member of The London Group on Environmental Accounting, which provides a forum for review, comparison and discussion of work for developing environmental accounts.

Monetary evaluation, functional evaluation of biophysical values, and a contextual or indicator value to provide understanding of the values were identified as primary needs for the field of ecosystem services. Additional needs for the data are coefficients for wetland classes, and finer resolution and detail to capture smaller size areas such as wetlands in the prairies.

Key comments from the panel and the audience:

- Could the UK's National Assessment inspire something similar for Canada? That assessment seems to have buy-in from many elected representatives and sectors in the UK. In Canada, one of the key priorities of Statistics Canada is to improve Canada's environmental statistics.
- Scaling the values was identified as an important issue as the current values are coarse and cannot be accurately applied at a spatial level. To address this issue, the values need to be developed at a local level. Although local and provincial studies could be leveraged to scale up the values, appropriate tools are needed for scaling.

## **Panel #2: Inspiration from Abroad**

***Panelists: James Salo (TruCost), Bobby Cochran (Willamette Partnership), Marian Weber (Centre for Market-Based Instruments), Paul Thomassin (Québec Centre for Biodiversity Science working group on ecosystem accounts), Jasmin Hundorf (The Economics of Ecosystem Services and Biodiversity)***

***Facilitated by Jeff Wilson (Green Analytics)***

James Salo focused on the process of identifying environmental risks to businesses through information gathering and analysis. Businesses are looking at ecosystem services from a financial perspective and sustainability from an ecosystem services perspective. Using Puma as a case study, James described the approach for assessing the environmental costs and risks and overall profitability of Puma's entire operations. The valuation assessment was beneficial as a management tool to identify and minimize the most negative environmental impacts, demonstrate the environmental benefits of current products and products in a resource-constrained world, understand the environmental performance of products in financial terms, and understand the risk to supply chain operations as a result of their dependency on natural resources.

Bobby Cochran discussed the use of ecosystem services in restoration projects in Oregon to demonstrate the comparatively low cost of green solutions to constructing infrastructure. Two case studies were cited where the restoration of wetlands and forest provided the ecosystem service of temperature regulation on a more cost-effective basis than building cooling towers. Bobby also described the Klamath Tracking and Accounting Program created by the Willamette Partnership to quantify the impacts and benefits of various land management and restoration practices that can be tracked as ecosystem service credits. Potential issues for the field of ecosystem services moving forward are the lack of demand and approval from key agencies, and how to address the valuation of water.

Marian Weber described Alberta's Land Use Framework, which is focused on managing the province's land and natural resources by improving decision-making in land use. The framework involves the creation of regional plans with objectives and thresholds for land, air, and water, and will also identify market-based approaches and incentives to provide ecosystem goods and services on private and public lands. Marian also discussed the role of the Center for Market-based Instruments (CMBI), a knowledge network that bridges theory and practice in applying market-based incentive approaches for conservation and stewardship in water, land use, energy,

forestry, and agriculture. The role of CMBI is to design and evaluate market-based approaches, share information with the community, and provide advice, knowledge transfer, instrument design and science-based design support. CMBI is developing an information repository on market-based instruments that will be launched soon.

Paul Thomassin provided an overview of his working group and ecosystem accounts for Québec. This group is looking at a way to develop ecosystem accounts for use in public and private decision-making. The main issues to address include the stock and flow of natural capital, physical changes in the stock, what is to be measured (e.g. final goods, functions, and processes), valuation of the ecosystem services, and aggregation of statistical units. The working group is currently developing research projects.

Jasmin Hundorf provided an overview of TEEB's work including updates on projects. TEEB is currently in Phase III (Implementation) which includes facilitation of TEEB national studies in countries such as Germany, India, and the UK, support for TEEB sectoral studies including the Arab wetland, Nordic TEEB and Southeast Asia, and promoting outreach, communications and networks. TEEB is also working at the sub-national level in its TEEB for Cities projects based in Iceland and Poland, and is working on implementing TEEB for businesses in projects based in the Netherlands and Germany. The TEEB UNEP Office is involved in building capacity in national, regional, and local areas, developing guidance and training materials, connecting projects to each other, acting as a platform to present national and sub-national projects, monitoring and guiding TEEB initiatives, and technical assistance.

Key comments from the panel and the audience:

- How are the limits to growth being factored into calculations for ecosystem services? The limits and thresholds of the resources are beginning to be accounted for in the calculations.
- A common international classification system for ecosystem services is a good idea but there are issues such as the contextual nature of ecosystem services and the need for consensus.

### **Panel #3: What strategies should we use to engage Ontarians?**

***Panelists: Christine Schmalz (Ontario Soil and Crop Improvement Association), Jode Roberts (David Suzuki Foundation), Steve Hounsell (Trees Ontario)***

***Moderated by Kathy Macpherson (Friends of the Greenbelt Foundation)***

Christine Schmalz described how agriculture is being engaged in ecological goods and services through the Environmental Farm Plan (EFP) and the Grassland Habitat Farm Incentive Program (GHFIP). The EFP is a voluntary educational program for farmers to increase their environmental awareness of the value of their agricultural land for ecosystem services. The GHFIP is a pilot incentive program that provides funding to eligible farm businesses to strengthen the production capacity of their grasslands while also providing habitat for grassland birds through the adoption of best management practices. Information including details on the farmland that farmers must submit as part of their bid packages can also be used in ecosystem services.

Jode Roberts shared five tips on how to communicate the benefits of nature. (1) Target the right audience such as building champions at the local level because they will determine the fate of the capital at that scale. (2) Focus on the benefits rather than the total sum of ecosystem services in an area. (3) Use technology to tell stories about nature and provide information to the public. (4) Be creative to bring a fresh and memorable look

to what is being communicated. (5) Be joyful and enthusiastic, and use inspiring visuals when talking about environmental issues.

Steve Hounsell focused on what needs to be addressed in order to move from valuing nature to paying for ecosystem services. (1) Education and awareness of the limits of nature must increase while people need to understand that we must live within the bounds of nature. (2) A bank of natural capital that measures what resources are available and what is being used would allow better management of nature. (3) Engage the marketplace in the process by tapping into the marketplace and financial capital. (4) The government must develop policy and regulations that will level the playing field.

Key comments from the panel and the audience:

- Communication methods such as one-on-one interactions and developing promotional material are effective for engaging with the target audience.
- Info-graphics are easily developed however web designers need good data and there may be a difference in opinion between what the developer and the public like.
- The core audience includes local government for their direct influence on ecosystem services and industry which needs to become involved in ecosystem services. Private landowners, funding agencies, and people who are unaware or uninterested were also identified as key audiences.

#### **Panel #4: How should ONES support the mainstreaming of ecosystem services in Ontario?**

The last panel of the day focused on the role of ONES in the future. Participants were divided into four groups and asked to brainstorm ideas on what actions ONES should take within the next two years to advance their mission, what resources are needed, and what methods of engagement should be used.

What actions should ONES take within the next 2 years to advance their mission?

- Develop a business plan that outlines actions to take and a plan to establish formal legal status as a non-profit organization
- Undertake a needs/scoping assessment that looks at the ONES mission statement to develop a yearly Work Plan and associated actions
- Define specific areas of focus that could be supported by committees of interested network members
- Develop a policy or research agenda and influence provincial policy and municipal plans
- Establish a clearinghouse that could include research (local, national, and international), reports, existing government strategies and directions, tools (including commentary on which tools are useful and effective), communication materials, and a database of experts and practitioners
- Advocacy – engage industry and the community; act as an ambassador for natural capital; help people to understand ecosystem services and how they can be used; promote available tools for valuation and application; facilitate discussion
- Define and develop indicators, common language and standardized processes in ecosystem services
- Develop continuing education courses for professional development credits

What resources do you feel are necessary to make this happen?

- Website and online forum to keep practitioners engaged
- Webinars

- Build partnerships with universities to link graduate students to the network and explore options to advance research objectives through student projects
- Explore funding opportunities after non-profit status is established
- Use existing networks, partners and resources
- Need a formal membership structure for ONES

What methods of engagement should we employ?

- Develop an engagement strategy to identify what partners are needed and tailor methods to the target audience
- Establish committees to support actions in business plan and target specific topics of interest
- Look beyond the conservation community to engage a broader audience, such as industry and youth
- Collaborate with other organizations with similar objectives/activities to learn from and implement programs
- Connect with people at grassroots level such as local decision-makers, developers

## Conclusions and Next Steps

Mike Puddister (Credit Valley Conservation Authority) thanked the panelists, moderators, and organizers for their involvement in the forum.

Mainstreaming Ecosystem Services provided the opportunity to share a wealth of information on the current state of ecosystem services from the local to the international level while also identifying the gaps that need to be addressed as the field of ecosystem services expands. The steering committee appreciates the comments received from the final panel on the role of ONES in mainstreaming ecosystem services and will consider the suggestions moving forward.