



INDICATOR: ECOSYSTEM SERVICES POLICIES AND PROGRAMS

STRATEGIC DIRECTION: Enhance Resilience

TARGET: 14. By 2020, programs and policies are in place to maintain and enhance ecosystem services.

THEME: Conservation Response – Plans and Policies

Background Information:

Biodiversity is the foundation upon which humans derive benefits called ecosystem services. For example, natural systems such as wetlands, free-flowing rivers, forests and grasslands provide services such as water purification, storm and flood protection, air pollution mitigation and recreational opportunities that benefit human well-being (Miller and Loyd-Smith 2012). Estimating the value of ecosystem services can reveal social costs or benefits that otherwise would remain hidden. Once identified and understood, these values can be considered and accounted for in the policy and decision-making process.

Ontario's current policy framework includes a strong commitment to conserving biodiversity. From enacting progressive sustainable forest management legislation, to establishing a network of parks and protected areas, to developing and working with partners to deliver innovative programs to maintain clean air, water and soil, Ontario has long understood the importance of conserving natural resources. While it is clear that many of the programs and policies that conserve biodiversity by their very nature also help to maintain and enhance ecosystem services, the development of policies and programs in which the main objective is to maintain or enhance ecosystem services is just beginning.

The explicit consideration of ecosystem services is not yet common in current policy; however, a growing understanding and supply of valuation information for Ontario is being used to communicate the benefits of conservation and to help assess the hidden costs associated with loss of ecosystem services (Miller and Loyd-Smith 2012). For example, a recent study found that southern Ontario's urban and sub-urban wetlands act as "natural factories" to filter water and produce at least \$40 billion in economic benefits each year (Troy and Bagstad 2009). Similarly, urban forests in southern Ontario provide economic benefits of at least \$26,000 per hectare each year, including cleaner air and water, enhanced pollination, better storm water management and aesthetic enjoyment for nearby residents (Troy and Bagstad 2009). Within the Ministry of Natural Resources and Forestry, ecosystem services values have also been integrated into the Regulatory Impact Assessment process to help quantify the business case for conservation and clarify the trade-offs discussed in policy proposals (MNR 2014).

This indicator presents results from a 2014 survey of the Ontario Public Service (OPS) Biodiversity Network commissioned by the Ontario Biodiversity Council. It provides an assessment of the number Ontario government programs and policies in place to maintain or enhance ecosystem services. This survey provides baseline data that will be updated to assess trends. A companion indicator provides an assessment of [biodiversity policies and programs](#).



Data Analysis:

Data for this indicator were collected through a survey of the Ontario Public Service (OPS) Biodiversity Network commissioned by the Ontario Biodiversity Council. The purpose of the survey was to gather information on the number of Ontario government programs and policies that are in place to maintain or enhance ecosystem services. The OPS Biodiversity Network provides a diverse, cross-Ministry forum for the OPS to strategically plan and implement biodiversity-related activities, policies, processes and projects across the Province. Fourteen ministries are currently represented on the OPS Biodiversity Network: Ministry of Natural Resources and Forestry; Ministry of Aboriginal Affairs; Ministry of Agriculture, Food and Rural Affairs; Ministry of Economic Development, Employment and Infrastructure; Ministry of Education; Ministry of Energy; Ministry of Environment and Climate Change; Ministry of Finance; Ministry of Health and Long-term Care; Ministry of Municipal Affairs and Housing; Ministry of Northern Development and Mines; Ministry of Tourism, Culture and Sport; Ministry of Transportation; and the Treasury Board Secretariat.

Respondents were asked to identify strategic and program polices in which maintaining or enhancing ecosystem services is explicitly included as a main objective/goal. They were also asked to identify those that include consideration of ecosystem services (e.g., mitigation/compensation for ecosystem services, use of ecosystem service valuation methods or economic instruments, etc.). While it is clear that biodiversity and ecosystem services are inextricably linked and that policies and programs that conserve biodiversity can help to maintain ecosystem services, the intent of this survey was to identify those programs or policies that have been developed with the main purpose of maintaining or enhancing ecosystem services. [Biodiversity policies and programs](#) are addressed in a separate indicator.

Because ecosystem services touch on the mandates of several ministries, they often require an integrated and collaborative approach. Where more than one ministry had a role in the implementation of a policy or program, the policy or program was assigned to the lead ministry. Responses were received from 13 OPS ministries, including one ministry that did not identify any programs or policies.

Results:

Trend: Baseline	Data Confidence: Medium	Geographic Extent: Provincial
------------------------	--------------------------------	--------------------------------------

Status:

- In 2014, the OPS Biodiversity Network identified six policies or programs that explicitly work to maintain or enhance ecosystem services. These include policies to safeguard our water, as well as protect important ecosystem services through effective land use planning and support climate change mitigation through carbon sequestration.
- These policies are administered by the Ministry of Municipal Affairs and Housing (3), Ministry of the Environment and Climate Change (2) and the Ministry of Natural Resources and Forestry (1).

Links:

Related Targets: 5. By 2020, all relevant policies and programs integrate biodiversity values.

Related Themes: N/A



Web Links:

Biodiversity: It's in Our Nature. Ontario Government Plan to Conserve Biodiversity, 2012-2020
<http://viewer.zmags.com/publication/c8f28fef#/c8f28fef/1>

References:

- Ontario Ministry of Natural Resources. 2014. Valuing nature: A policy lens. Considering the economic value of nature in policy development and resource management. Peterborough, ON.
- Ontario Ministry of Natural Resources. 2012. Biodiversity: it's in our nature: Ontario government plan to conserve biodiversity, 2012-2020. Queen's Printer for Ontario. Toronto, ON.
- Miller, E., and P. Loyd-Smith. 2012. The economics of ecosystem services and biodiversity in Ontario (TEEBO). Ontario Ministry of Natural Resources, Peterborough, ON.
- Troy, A., and K. Bagstad. 2009. Estimating ecosystem services in southern Ontario. Report for Ontario Ministry of Natural Resources. Peterborough, ON.

Citation

Ontario Biodiversity Council. 2015. State of Ontario's Biodiversity [web application]. Ontario Biodiversity Council, Peterborough, Ontario. [Available at: <http://ontariobiodiversitycouncil.ca/sobr> (Date Accessed: May 19, 2015)].