

EXECUTIVE SUMMARY



Ecological Goods and Services (EG&S) are benefits that humans receive from their ecosystems, and are essential for healthy, functioning, and sustainable agricultural landscapes. The provision of EG&S is often seen as counter to agricultural productivity; however, they provide major benefits to agricultural landscapes. Natural areas provide trillions of dollars in EG&S globally through carbon sequestration, water purification, reduced soil erosion, and foraging and habitat provision for insects and wildlife, as well as cultural services that support spiritual, mental, and physical well-being, recreation, and other community benefits. EG&S are mainly achieved through farm management (e.g. cover cropping) and the establishment or maintenance of natural habitats (forest, native prairie, wetlands) and semi-natural habitats (buffer strips, woodlots, man-made water features, hedgerows).

There are several program, policy, and market-based solutions within Canada that have attempted to address this issue. Here we present examples of solutions that protect existing-, restore degraded-, and establish new EG&S within existing agricultural landscapes, largely based on monetary incentive structures that provide direct (e.g. payment) or indirect (e.g. tax break) compensation. While these examples provide a starting point, better valuations and measurements are needed that consider the multiple EG&S benefits gained from maintaining a natural or semi-natural area or letting areas of cultivated land naturalize, as well as the time scale required to see benefits. These structures generally also fail to recognize intrinsic and cultural values of existing landscape features and lack strategies for the long-term adoption of ecological practices, such as improving peer-to-peer learning between farmers, involving farmers in agricultural research and policy development, and acknowledging the economic and policy obstacles that farmers face in adopting innovative environmentally based management on their lands.

There are opportunities to develop better incentive structures, and indirectly incentivize ecological practices through improved value-chain support, harmonization with internationally recognized sustainability standards, and improved understanding by farmers, administrators, and the broad public of how land tenure impacts the provision of EG&S.

This discussion paper shares information with policy advisors related to the mechanisms and opportunities to increase Ecological Goods and Services in Canadian agricultural landscapes and develop collaborative research.

WHAT YOU WILL LEARN

- Limitations restricting widespread adoption of programs delivering Ecological Goods and Services in agriculture.
- Challenges to policy and program development for promoting Ecological Goods and Services.
- Solutions to increasing Ecological Goods and Services through policy, markets and behavioural shifts.
- Future research collaborations and key opportunities for policy advisors.