

The Ecological Services Initiative

The Ecological Services Initiative (ESI) is in the process of developing an incentive based ecosystem services program for agricultural lands in BC and Alberta. This concept is focusing on a model that would function at the regional or watershed scale. The following provides an overview of the ESI:

Ecological Services (ES) are benefits derived from ecological functions of healthy ecosystems, which are globally recognized as necessary for human health and well-being. Globally, incentivising the production of Ecosystem Services is a concept that has been garnering a tremendous amount of interest. There are many long term programs throughout the world that pay agricultural producers to maintain and enhance practices that result in an increase in Ecosystems Services. This type of incentive program is generally referred to as Paid Ecosystem Services (PES). Unfortunately Canada has lagged behind in establishing such programs. The Ecological Services Initiative (ESI) was created to demonstrate and test the concept to determine its viability in the Canadian context. The Ecological Services Initiative's objective is; to research and demonstrate a voluntary incentive-based model that encourages farmers to adopt Beneficial Management Practices (BMPs) for the maintenance and enhancement of ecological services under their management control.

As a farmer-led initiative, the ESI is made up of a team of experts focused on demonstrating, researching, and developing the PES concept for the Canadian context starting with BC and Alberta.

The initial Program Development Team consisted of:

Wanda Gorsuch, EG&S Expert; King Campbell, Ducks Unlimited; Dr Nancy Olewiler, Simon Fraser University; Dr Peter Boxall (Economist) and other EG&S experts from University of Alberta; University of Montana Field School; contracted specialists; Dave Zehnder, Consulting Project Co-ordinator & Rancher; Agricultural Producers (at demonstration sites); and Shizu Futa, Certified Professional Bookkeeper. Pedro Lara Almuedo and Don Gayton, extension specialists with FORREX, are also providing consultation on the program's extension and communication aspects.

Program Phases

The ESI is divided into three phases:

Phase I: Development and Testing of the Model

Phase One started in 2010 with the initiation of a three year demonstration project, funded in part by the East Kootenay Conservation Fund. This project established the initial demonstration site. This phase involved:

- Completing an Environmental Farm Plan for the subject property;
- Conducting an initial assessment of the demonstration site, and
- Establishment of Best Management Practices (BMPs).

The BMP consisted of the construction and maintenance of a fence to exclude cattle from a portion of the riparian zone designated for the project. This also included the fencing off of the nesting site of the endangered painted turtle in the same area. The demonstration owner was then paid an incentive to maintain the area to increase the targeted Ecosystems Services. The site was monitored for three years to quantify the biological and water quality related results. A financial analysis was also completed to determine the costs and benefits to the producer maintaining the BMPs on the site. Other components of this phase include an in-depth literature review, interviews with global ES experts, the establishment

of program management and delivery teams, and engagement with key stakeholders regarding the ES concept and results from the demonstration site.

Phase II: Development of Scaled-up interprovincial ES Research and Demonstration Project

This phase built on what was learned in Phase One and has established an additional 30 demonstration sites with a variety of commodity producers in different regions across the BC and Alberta. The targeted Ecosystem Services include water quality, and quantity, biodiversity/species at risk, and carbon sequestration. Biological and economic results have been monitored and analysed and are being communicated to stakeholders. Some of the highlights include the development of unique funding sources that could be accessed for a long term PES program, creation of monitoring methodologies necessary to provide quantitative results from the BMPs. This phase is helping determine the viability of the concept in the larger inter provincial context and laid the ground work for Phase Three. The preliminary results from the initial demonstration phases indicate that a long-term concept is viable.

Phase III: Program Implementation

This phase was initiated in 2014 and will facilitate the implementation of this long-term PES program for the provinces of British Columbia and Alberta. It is focused on creating a mosaic of regional programs that will achieve the provincial scale. This phase will begin with a 5 year pilot testing and developing the model at a regional scale.

Conclusion

The ESI's main goal is to establish a long-term, financially sustainable, ecological services program. The Initiative is supported by many different funding sources.

Contact Information

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