



## **ENVIRONMENTAL GOODS AND SERVICES IN AGRICULTURE**

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Environmental Goods and Services, sometimes referred to as Ecological Goods and Services, is a term that is receiving more and more attention recently. Several definitions have been formulated, and have slightly different meanings, depending on the perspective of the ones doing the defining. For example, one significant view is that:

“Ecological Goods and Services are the sum total benefits or outputs society receives through ongoing natural processes from the natural capital of a landscape, including clean water and air, food production, fuels, carbon storage, flood and erosion control, waste treatment, wildlife habitat, timber, recreation and biodiversity.”

However, the real purpose of discussing EGS is to evaluate and examine the human impact on these outputs of clean water, clean air, reduced greenhouse gases, improved biodiversity, good quality soil, and a certain aesthetic quality. That’s why they are called goods and services, which has direct economic implications, since it is from the study of economics that these terms come.

In the context of agriculture, there are two basic reasons for the discussion of Environmental Goods and Services. One is to provide remuneration or rewards or additional income for providing these goods and services. The other reason is the question of whether rewards or financial incentives can increase or enhance the production of these environmental goods and services in agriculture.

Several categories of adding revenue to agriculture for producing these environmental goods and services exist:

- Added product value for environmental attributes (eg. Organic, “Natural”, “green” malt barley)
- Access to markets (GMOs, “green”, livestock welfare)
- Market payments (carbon offsets, NAWMP, DUC, ACA)
- Government incentives (CAFSP, Green Cover)

Some examples:

- NAWMP
- CAFSP
- Carbon credits
- Biofuels
- New York Watershed
- Australia auctions (reverse auction)
- Switzerland payments
- Netherlands example

From identification of opportunities, to validation and valuation of these services, to examining marketability and setting up verification systems, these environmental goods and services require some work and time to connect to marketplaces. Experience tells us that many of the biggest markets to date are actually governments, who as representatives of the public, sometimes undertake to provide a mechanism as well as incentives for certain actions that benefit the general public.

However, there are also other significant markets, and indications are that these opportunities are increasing. Some of these markets will be niche markets, partly because One person’s environmental nirvana is another person’s environmental nightmare. Eg. Organic vs zero-till , Eg. Biofuels vs natural lands.

Some recent examples include: Unilever has initiated a series of field-level pilot projects to implement and develop sustainable practices. Patrick Cescau, Group Chief Executive of Unilever, has said to Unilever’s suppliers that “sustainable farming practices work, because they are business-based and promote efficiencies while at the same time benefiting both the environment and society.”

Sapporo Breweries has developed a “collaborative contract farming system that tightly tracks and monitors all malt barley production inputs and quality”. The value chain is made up of fifty-nine malt barley producers from Alberta and Saskatchewan plus other industry partners.

The Grains Research & Development Corporation (GRDC) of Australia is urging growers to reveal the grain industry’s green image. The Grains Council in conjunction with GRDC is asking growers to contribute to a national farming practices database. Growers will receive a productivity and sustainability report that is benchmarked against district, regional, state and national practices.



The Keystone Centre in Colorado has initiated a project to identify criteria for sustainable agriculture and to support implementation of production systems that lead to improvements against the criteria.

There are many more examples of interest in this topic around the globe.

Questions of paying for existing farming practices, or for systems, or paying for actual water and air quality, looking at whole life cycle analyses, and can there be payments for more than just costs, are being asked. What are the implications for trade policy, and trade opportunities.

The question for Alberta is can Alberta become a leader in this area? Who will participate and be partners in the markets and policies surrounding this topic?



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