Next Generation
of Agriculture and Agri-Food Policy

Environment under the Next Generation of Agriculture and Agri-Food Policy Development: A Discussion Paper

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The Next Generation of Agriculture and Agri-Food Policy –
A Federal, Provincial, and Territorial Initiative

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Environment under the Next Generation of Agriculture and Agri-Food Policy Development: A Discussion Paper

1. Introduction

This paper is one of a series of consultation documents designed to stimulate a dialogue amongst all stakeholders about how governments and others can work together to ensure a competitive and profitable Canadian agriculture and agri-food sector that provides safe, innovative and high quality products and services.

There are five thematic papers, covering the topics of: innovation and science; environment; food safety and quality; renewal; and market development and trade. These five areas largely reflect the structure of the existing Agricultural Policy Framework and it is hoped that stakeholders will also provide input on whether a different set of themes would work better in the future.

Additional consultation material includes:

- An overarching discussion paper meant to stimulate dialogue on the broad issues facing the sector and the overall direction of the agriculture and agri-food sector;
- A principles paper meant to stimulate dialogue on guidelines for developing the next generation of agriculture and agri-food policy;
- Consultation material on business risk management (BRM) programming; and
- A series of economic backgrounders.

Thank you for taking the time to review this paper. We welcome your input and ideas. Contact information is provided at the end of the paper.

2. Background

As a major user of land and water resources, agriculture has a significant impact on the environment. Agricultural production, in turn, is affected by environmental issues such as drought, flooding, invasive species and soil, water and air quality.

Environmental issues will likely play a role in the ability of the industry to remain competitive into the future. Long-term environmental trends pose challenges to the industry. Climate change, for example, is expected to affect the availability and quality of land and water, with drought a particular concern in the Prairies. On the demand side, increasing population, urbanization, and industrial use are placing significant demands on the water supply. On the supply side, the increasing consumer demand for products produced using "environmentally friendly" management practices, which may be costly to implement, comes at a time when producers face considerable income pressure. Some sectors are concerned that increased public debate on environmental stewardship issues will pose a direct constraint to growth.

Agri-environmental policy must address both agricultural objectives to promote a profitable and competitive agricultural sector and environmental objectives which seek to reduce the impact of agricultural production on the environment. These are not necessarily in opposition. In fact, there are instances where the opposite is true and producers may increase profits while achieving environmental objectives.

Innovation is providing the sector with opportunities in non-traditional markets which may provide opportunities to increase revenues and reduce net environmental impact. These include trading in carbon sequestration, using agricultural waste by-products (stalks, leaves etc.) to produce renewable energy and manufactured goods (bio-products such as textiles, construction materials and industrial goods), creating on-farm green energy from anaerobic digestion processes (to create biofuels) or wind, and developing useful products for residues from ethanol production.

Creating or enhancing wildlife habitat and biological diversity on farms often requires the removal of land from, or changing the nature of production. In some cases, this can result in a loss of income, while potentially increasing the population of species that prey on the remaining crops or livestock. As a result, some producers have been reluctant to adopt such beneficial management practices, and governments may have an opportunity to provide education and support for on-farm action where market-based incentives do not exist.

More broadly, an opportunity exists to benefit Canadians and the environment by fostering healthy ecosystems, wildlife habitat, programs to preserve and restore groundwater basins, flood and erosion control, carbon sequestration, increased biodiversity, as well as air and water purification.

3. Current Policy and Programs

Under the Agricultural Policy Framework (APF), the Environment Pillar was designed to meet three major objectives. These are:

- achieving meaningful and measurable improvements in soil, water and air quality and the industry's impact on biodiversity;
- researching and developing new on-farm beneficial management practices; and
- making environmental information available for better land use planning and management and the tools to support on-farm action.

In order to achieve these objectives, the APF laid out a suite of 14 national programs (see Annex A) in three broad categories:

A. **On-Farm Action** to support farmers in addressing environmental challenges by developing and implementing environmental plans and securing water supplies;

B. **Building Knowledge and Information** to support on-farm actions and land management decisions;

C. **Measuring Performance and Reporting Results to Canadians** through agri-environmental indicators and benchmarks, improving water quality surveillance and examining the creation of a process which certifies products prepared in an environmentally friendly way

Along with the agri-environmental policies of the APF, the Government of Canada has identified a number of priorities to ensure a healthy environment. For example, the Government of Canada is addressing environmental concerns with an emphasis on new technology and clean air. As part of this objective, the Government is looking to sustainable production and improved agri-environmental practices.

Because implementation of the environmental pillar of the APF was delayed, it is still too early to assess the effectiveness of the APF environmental programs. However, since 2003, there has been an increase in the number of Environmental Farm Plans (EFP) adopted and Beneficial Management Practices implemented. Agri-environmental indicators reveal some encouraging trends with respect to soil conservation, (e.g. the reduced risk of erosion, increased carbon sequestration) and a net reduction in greenhouse gas emissions. However the agri-environmental indicators also indicate that the risk of water contamination by nitrogen has increased and that wildlife habitat capacity on farmland has diminished. A description of Ecological Goods and Services and a planned cost-benefit analysis is attached in Annex C.

4. Roles and Responsibilities

One of the challenges in building a strong agri-environmental policy is its multi-jurisdictional nature. Provinces have responsibility for land and water use management, while the federal government has responsibility for inter-provincial and international impacts (see Annex B). In practice, this has meant that much of the decision-making power related to land use and production is exercised by the provinces, while the main federal government role is to provide information that assists decision-makers to achieve environmental objectives.

There are many federal departments and agencies whose mandate touches on elements of agri-environmental objectives, including Environment Canada (clean air), Natural Resources Canada (alternative energy), the Pest Management Regulatory Agency (pesticide risk reduction), the Canadian Food Inspection Agency (biosecurity, plant and animal health) and Fisheries and Oceans Canada (fish habitat).

Similar complexity exists at the provincial level, with numerous departments, laws and regulations involved in agri-environmental issues. These include a range of mechanisms designed to encourage or require environmentally sound farming practices, such as:

- information documents on best environmental management practices;
- regulations on reducing agricultural impacts;
- legislation to regulate agricultural operations practices; and
- legislation to make the discharge of pollutants illegal.

Even within the same area of jurisdiction, there can be multiple players. While the Pest Management Regulatory Agency is responsible for the regulation and registration of pest management products, there are provincial regulations which govern these products, too, including rules regarding their disposal. Moreover, waste management is usually a municipal responsibility.

Because the sector is affected by such a broad range of players, each with its own priorities and perspectives, it is imperative that national agri-environmental policies be flexible enough to accommodate the unique priorities and requirements of each province. Canada's obligations under international agreements present both opportunities and limitations - opportunities to advance issues that require collaborative action and limitations in constraining our ability to act unilaterally. Because many environmental issues transcend national boundaries, Canada is both limited by and provided opportunities in international agreements. Canada is signatory and party to a number of agreements such as the United Nations Economic Commission of Europe Convention on Long-range Transboundary Air Pollution and the Vienna Convention and Montreal Protocol on Substances that Deplete the Ozone Layer.

5. Considerations in Developing the Next Generation of Agriculture Policy

The next generation of agri-environmental policy will be influenced by several considerations. Foremost among these are the parallel policy development and consultation processes taking place in the areas of innovation and science, food safety, food quality and market development and trade.

One key consideration in agri-environmental policy is assignment of cost to meeting agri-environmental policy objectives. The polluter pays principle states that producers of pollutants and wastes should bear responsibility for their actions. Companies or people that pollute should assume the costs that they impose on society.

Some feel that producers should not shoulder any incremental costs related to improving the environment, and that there should be compensation for environmental services rendered, which they see as public goods. In moving forward, it will be important to consider consistency with other sectors.

6. Proposed Policy Objectives

One lesson learned from the APF was the need to understand how agriculture and the environment interact as a means to identify priority areas for future policy. By clearly distinguishing between agricultural objectives and environmental objectives, governments should be able to incorporate early lessons learned from the APF. It is proposed that the objective of agri-environmental policy in the next generation should be to promote a profitable and competitive agricultural sector while minimizing any negative impact on the environment. The proposed objectives include:

Agricultural policy objectives:

- Promote a competitive and profitable sector that takes advantage of opportunities, meets environmental objectives and improves financial performance;
- Seek to ensure the sector has access to the resources (land, water, air) that it requires;
- Support sector adaptation to the impacts of the changing environment.

Environmental policy objectives:

- Reduce the impact of agriculture on the environment;
- Contribute to broader policy objectives related to the environment, including promoting the health of Canadians.

7. Proposed Policy Options

Given the breadth of issues, governments and industry may want to define four key areas for work: science; encouraging coordinated action; on-farm programs; and reporting.

Science

Governments should continue to develop the scientific knowledge base to support BMPs, especially with respect to emerging issues, like protecting groundwater sources of drinking water. As well, an effective, science-based regulatory system is required to ensure that producers have access to new technologies which can reduce environmental impacts.

In this regard, governments may have a role to play in facilitating the adoption of technologies which improve environmental outcomes, through sound regulation or to support the sector in developing business models that provide a fair return on investment in agri-environmental management.

Coordinated Action

In developing the next generation of agriculture and agri-food policy, it will be important to define and to set goals to achieve common environmental objectives and coordinated action, although it is recognized that this is challenging given jurisdictional and regional differences at play. To this end, governments may want to consider how publically-funded analysis and dissemination of information can form the basis for common environmental objectives and ensure a level competitive playing field. As well, governments may find a role in supporting the sector to developing business models that provide a fair return on investment in agri-environmental management.

On-Farm Programs

On-farm programs seek to influence resource use decisions at the farm level to contribute to regional and/or national environmental objectives. It will be important that on-farm programming be flexible enough to reflect regional priorities.

Reporting

There will be a continued need for objective and reliable information on environmental performance in the agricultural sector. Under the APF, governments developed agri-environmental indicators that have been used to assess the environmental effects of land use and farm management practices on Canadian farms. These indicators can play an important role in assessing the effectiveness of current and future programs and policy. In addition to assessing the effectiveness, it will be important to quantify the economic value of adopting environmentally-friendly practices as a means to encourage their take-up.

In order to make progress in these four areas and foster a profitable and competitive agricultural sector which responsibly manages environmental risks a framework is proposed that would involve a combination of regulatory, voluntary stewardship and market-based instruments.

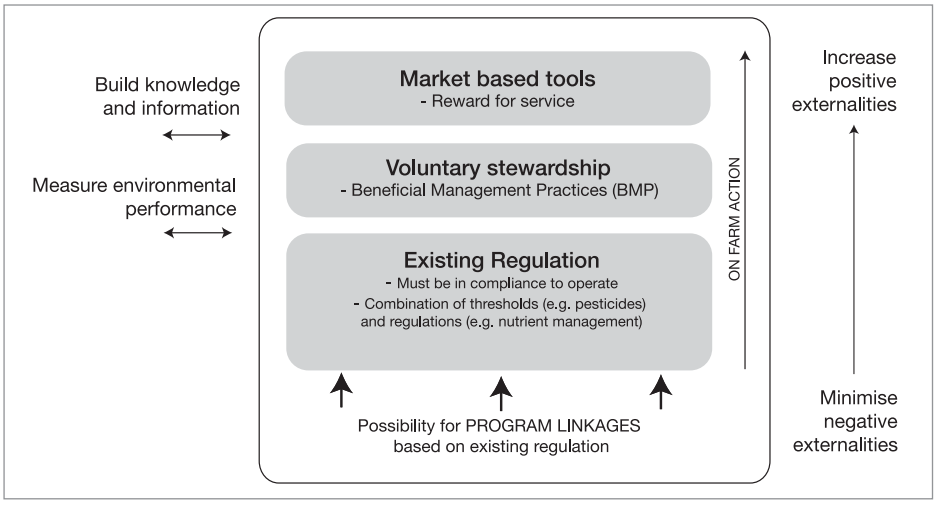
Regulations could form the basis of agri-environmental policy, and should address the minimum requirements that producers must fulfill. They are aimed at minimizing negative effects caused by farm activities, such as contamination of water courses.

Voluntary stewardship can be encouraged through the sharing of information on science and beneficial management practices. For example, under the APF, the main program to encourage voluntary stewardship occurred with the Environmental Farm Plans (EFP) to help producers identify environmental priorities and develop strategies to manage risk. In particular, the National Farm Stewardship Program (NFSP) provided public support for evaluation, information transfer and partial compensation for adoption of environmentally friendly practices. Programs of this type should be considered in developing the next generation of agriculture and agri-food policy.

Market instruments provide financial incentives to meet environmental objectives. Market forces may mean that higher environmental standards are required or that premiums are paid for products that are produced in an environmentally friendly manner. Further, market opportunities may arise through compensation from other sectors, wildlife conservation groups, consumers, or governments, where private incentives are not aligned with public interests. To this end, governments may facilitate the adoption of beneficial practices where these practices may require the removal of lands from production, result in loss of income or loss of production. Governments could work to develop incentive mechanisms such as a water quality trading system. Market instruments are often considered in the context of ecological goods and services (see Annex C).

Any mix of instruments must be financially efficient (meeting objectives at minimum cost), effective (successfully achieves environmental objectives) and regionally flexible (accounting for varied circumstances).

Figure 1: Framework for the next generation of agri-environmental policy



8. Questions for Discussion

1. Is this the right framework to promote agri-environmental policy?
2. If you agree that we are on the right track where would you put emphasis in the elements of strategy?
3. What are the appropriate roles for governments and industry to achieve agri-environmental policy objectives?
   - How can governments ensure policy consistency with other industries regarding environmental outcomes beyond basic regulatory compliance?
4. How can environmental and agricultural policy objectives be integrated as part of a coherent approach to sustainable development across the sector?
5. How can regional agri-environmental objectives be achieved within national policy frameworks?

ADDING YOUR VOICE TO THE DISCUSSION

Federal, provincial and territorial governments look forward to hearing from a wide variety of individuals and organizations, and to working together to develop a solid policy framework that supports a prosperous agriculture and agri-food sector. We encourage you to add your voice to this discussion, beginning in January 2007. For more information on this process:

- Visit our website at http://www.agr.gc.ca/nextgen
- Call 1 800 O-Canada (1 800 622-6232) TTY: 1 800 926-9105
- Contact any federal, provincial, or territorial agriculture office

ANNEX A:
NATIONAL APF ENVIRONMENTAL PROGRAMS

Certification - AAFC is currently exploring options for voluntary farm environmental certification. Certification has the potential to enhance Canada's position in world markets through credibly demonstrating that Canadian farms are meeting a certain level of environmental performance and/or stewardship.

Environmental Farm Plan (EFP) - A program to encourage environmental farm planning in accordance with national standards.

Environmental Technology Assessment for Agriculture (ETAA) - A program to encourage the adoption of new technology in agriculture such as energy co-generation from manure.

Information Gaps in Water Quality and Nutrients (GAPS) - Develop and evaluate environmentally beneficial agricultural production and management practices.

Greencover Canada - A program to convert land marginal for annual crop production to permanent cover, address riparian issues, encourage shelterbelt establishment.

International Exchange - The development of agricultural goods and services that have recognized environmental benefits and develop market opportunities for these goods and services.

Minor Use Pesticides - In cooperation with Health Canada, a program to provide funding to assist with the registration of pesticides for use on minor crops.

National Agri-Health Analysis and Reporting Program (NAHARP) – A program to develop and put in place environmental indicators will be developed and put in place to track and predict environmental performance, support policy and program development, identify environmental conditions in geographic zones and trends attributable to agriculture and increase environmental awareness.

National Farm Stewardship Program (NFSP) - A program to encourage the implementation of Environmental Farm Plans.

National Land and Water Information Service (NLWIS) - A program to make environmental information and decision support tools will be made available to land use managers to support local and regional agricultural land use planning and management.

National Water Supply Expansion Program (NWSEP) - A program to encourage the development and management of water supplies related to agriculture across Canada.

National Agri-Environmental Standards Initiative (NAESI) - In cooperation with Environment Canada, a program to develop agri-environmental standards that support common environmental objectives and support the move to environmental farm certification.

Study of regulations - A national study to examine the way in which jurisdictions regulate agriculture with respect to the environment with the view to sharing best practices.

Water Quality Surveillance - In cooperation with Health Canada, an initiative to develop mechanisms to monitor the impacts of agriculture on Water Quality.

ANNEX B -
ENVIRONMENTAL ACTS AND REGULATIONS

Listed below are some Federal Acts and Regulations related to the environment and agriculture.

Canada Water Act (Administered by the Minister of the Environment) – This Act provides for the management of the water resources of Canada, including research and the planning and implementation of programs relating to the conservation, development and utilization of water resources. In the case of agriculture, management of water resources could include farm water supplies and irrigation.

Canadian Environmental Protection Act (CEPA) (Administered by the Ministers of the Environment and Health) – This Act contributes to sustainable development through pollution prevention and protecting the environment, human life and health from the risks associated with toxic substances. CEPA also recognizes the contribution of pollution prevention and the management and control of toxic substances and hazardous wastes to reducing threats to Canada's ecosystems and biological diversity. It acknowledges for the first time the need tovirtually eliminate the most persistent and bioaccumulative, toxic substances, which are those that remain in the environment for extended periods of time before breaking down, and that accumulate within living organisms. For the agriculture sector, CEPA regulates some substances used in agriculture production, such as ammonia.

Canadian Environmental Assessment Act (CEAA) (Administered by the Minister of the Environment) – The Government of Canada proclaimed the Act in 1995 and amended in 2003 to balance environmental considerations with economic and social considerations in decision-making on projects, to support sustainable development. CEAA places a legal obligation upon federal departments and specified agencies to ensure that environmental assessment of projects and activities is completed while they are still in the planning stages. For AAFC, CEAA is applied to applicable projects where AAFC is the proponent, the project occurs on federal land or where AAFC provides funding for the project.

Fertilizer Act (Administered by the Minister of Agriculture and Agri-Food) – This Act regulates agricultural fertilizers. New agricultural fertilizers must undergo an assessment of potential impacts on the environment and human health.

Fisheries Act (Administered by the Department of Fisheries and Oceans) – This Act regulates fisheries, including fish habitat protection and pollution prevention.

Plant Protection Act (Administered by the Minister of Agriculture and Agri-Food) – The Plant Protection Act controls the importation, exportation and spread of pests injurious to plants. It also provides for the control and eradication of pests, and the certification of plants. The Act is important in protecting the biological diversity of Canadian plants.

Pest Control Products Act (Administered by the Minister of Agriculture and Agri-Food) – The Act regulates products used to control pests and organic functions of plants and animals.

The Migratory Bird Convention Act, Species at Risk Act and the Wild Animal and Plant Protection and Regulation of International and Inter-provincial Trade Act relate to agriculture when these protected species and/or habitats are found on agricultural lands.

Migratory Bird Convention Act (Administered by the Minister of the Environment) – This Act implements the 1916 treaty between Canada and the United States, in which the two countries agree to adopt a co-ordinated system to protect

migratory birds from indiscriminate harvesting and destruction. The Parksville Protocol, an amendment to the Convention, came into force on October 7, 1999.

Migratory Birds Regulations – The Regulations concern the conservation and protection of migratory birds. The Regulations control, for example, hunting and possession of migratory game birds; sale, purchase, or shipment of migratory birds, their nests or eggs; scientific collection, agriculture, and taxidermy; activities designed to reduce the damage migratory birds cause to crops or other property and the danger they pose to aircraft; and requirements for hunters to use non-toxic shots for most migratory game bird species.

Species at Risk Act (SARA) (Administered by the Minister of the Environment) – This Act came into force in June 2003, protects wildlife found on federal lands as well as their critical habitat.

Wild Animal and Plant Protection and Regulation of International and Inter-provincial Trade Act (WAPPRIITA) (Administered by the Minister of the Environment) – The purpose of the Act is to protect Canadian and foreign species of animals and plants that may be at risk of over exploitation because of poaching or illegal trade and to safeguard Canadian ecosystems from the introduction of species designated as harmful.

ANNEX C - EVALUATING POLICY TO ENCOURAGE PROVISION OF ECOLOGICAL GOODS AND SERVICES

Ecological Goods and Services (EG&S) are the benefits human populations derive from healthy ecosystems. These include the products received from ecosystems (e.g. food, fibre, clean air and water), the benefits from ecosystem processes (e.g. nutrient cycling, water purification, climate regulation) and non-material benefits (e.g. recreation and aesthetic benefits).

The close interaction of agricultural production with the natural landscape offers possibilities to improve the provision of EG&S. However, market signals do not always reflect the value of EG&S to society, leading to under-production of these goods and services.

The provision of EG&S from agriculture landscapes may be encouraged by a range of policy tools including voluntary stewardship, market based instruments, incentives and regulations.

A federal-provincial working group has been created to develop a framework for assessing how EG&S can be considered within the broader agricultural and environmental policy context. Some research has already occurred and EG&S pilot projects are being funded to research the use of different EG&S programming ideas. Ministers have agreed to conduct a cost-benefit assessment of initiatives that may encourage the provision of EG&S. The Federal-Provincial Working Group will develop an approach to carry out this work.