2 INVESTING IN ENVIRONMENTALLY SUSTAINABLE AGRICULTURE

Recommendation Summary

Canada has the potential to become a trusted global leader in sustainable food production while delivering critical environmental and social benefits, such as climate mitigation and adaptation, water quality, biodiversity, and food security. The Canadian Agricultural Partnership (CAP) and A Food Policy for Canada (FPC) present important opportunities for the federal government to play a leadership role in enabling the growth of an environmentally sustainable, climate resilient and competitive agricultural sector that meets the needs of Canadians now and into the future.

The Green Budget Coalition recommends that Budget 2018 contributes to the environmental and socio-economic priorities of the CAP and the FPC with a significant investment in programs, scientific research and policy development that support environmentally sustainable agriculture.

Specifically, GBC recommends that Agriculture and Agri-Food Canada (AAFC), in collaboration with other departments, invests $558 million over five years (starting 2018-2019) in:

1. Agri-Environmental Programs to Protect the Ecological Function of Agricultural Landscapes & Improve Sector Competitiveness

Investment Required:

For 2018/19:	$90 million
For 2018 to 2023:	$450 million (total)

2. Science Capacity, Research & Monitoring to Reduce Environmental Risks and Increase Public Trust in Canada's Agriculture

Investment Required:

For 2018/19:	$24 million
For 2019/20:	$21 million
For 2018 to 2023:	$108 million (total)

GBC Feature Recommendations – Alignment with Political Priorities

2 Agriculture

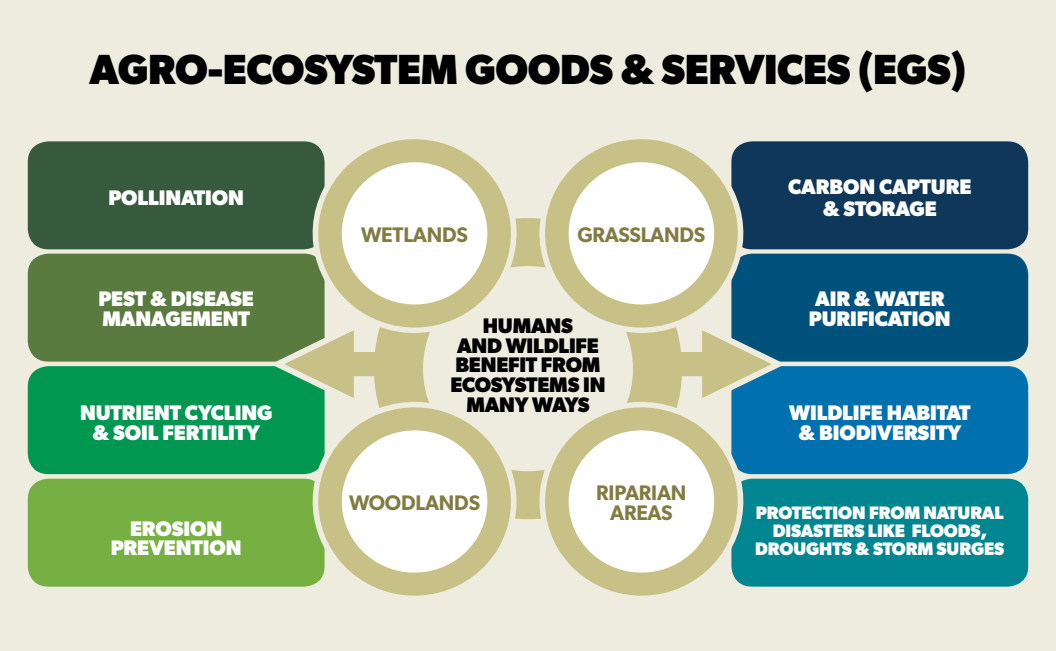
Reducing GHG Emissions	✔
Climate Resilience	✔
Reconciliation with Indigenous Peoples	
Meeting Public Expectations	✔
Healthy Waters	✔
Jobs for the Middle Class	✔
Improving Health & Wellbeing	✔
Protecting Nature & Wildlife	✔
Clean Growth & Innovation	✔
Economic Growth for Rural & Remote Communities	✔

Background and Rationale: Why is this important?

Canada's agricultural productivity and our well-being relies on a foundation of ecological health. As stewards of the land, farmers face increasing challenges in balancing the need to produce more food with that of protecting Canada's air, soil, water and biodiversity.

A lack of adequate policy and program support for sustainable agricultural practices has contributed to a growing number of environmental challenges on the farm and beyond. For example, ongoing drainage of wetlands and streams - a common practice used to create more crop land and control water - has resulted in significant habitat and biodiversity loss, water pollution and more severe flood events. Many of these environmental issues are compounded by a changing climate and farmers are already facing many challenges including crop loss, reduced yields and decreases in farm income. Canada's communities are also feeling the negative effects of environmental degradation, including increasing risks of food insecurity and resultant health impacts, as well as increasing costs of new infrastructure to replace water filtration and other lost ecosystem services. Lastly, on-farm habitat and biodiversity loss is hurting Canadian wildlife, evidenced by a growing number of listed, threatened or endangered species, including pollinators and other agriculturally beneficial insects.

In the face of climate and economic uncertainty, government support for conserving the ecological integrity and resilience of Canadian farmlands through environmentally sustainable agriculture practices has never been more urgent. Sustainably-managed agricultural landscapes can generate a number of ecosystem goods and services (EGS) that will benefit farmers directly and create long-term mutually-reinforcing economic, environmental and social benefits for Canadians.



Sustainable management of agro-ecosystems & their services can increase agricultural productivity and strengthen the resilience of farmlands, rural communities and their natural resource base.

The Benefits of Environmentally Sustainable Agriculture

Supporting sustainable management of agro-ecosystems and investing in environmentally sustainable agriculture can generate important environmental, economic, and social benefits for all Canadians, and at the same time, help advance a number of important government priorities, including:

- Increasing agricultural competitiveness, market access and climate resiliency
- Mitigating climate change and reducing GHG emissions
- Supporting farmers and rural community development
- Safeguarding species at risk critical habitat & enhancing biodiversity
- Reducing environmental and (occupational) exposure to toxic chemicals
- Increasing food security and enhancing access to healthy and safe foods
- Protecting Canada's wetlands, rivers, lakes and streams
- Meeting the UN and Federal Sustainable Development Goals

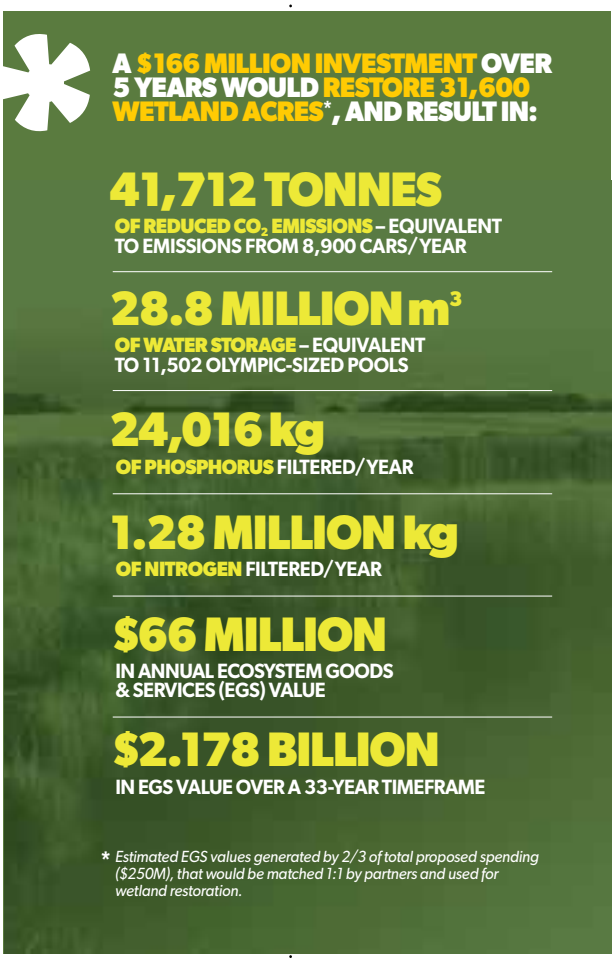
Photo: © Georgia McNeil, Ecology Action Centre

Recommended Investments

The Green Budget Coalition recommends a federal investment of $558 million over five years in agri-environmental programs, policies and scientific research to provide long-term ecological, social, and economic benefits while enhancing climate change resiliency and native species diversity.

1. Invest $450 million over five years in Agri-Environmental Programs to Protect the Ecological Function of Agricultural Landscapes & Improve Sector Competitiveness

The last agricultural policy framework, *Growing Forward 2,* invested a total of $320 million (of which $192 million was federal funding) over five years to support agri-environmental measures on Canadian farms. When divided across Canada's agricultural land area (67.5 million hectares), this investment amounted to less than $1 per hectare per year. The GBC believes that this level of investment is insufficient to address the above-mentioned environmental challenges and climate change impacts facing the sector.



Improving environmental conditions on Canadian farms is also critical to the sector's future competitiveness at home and abroad. Increasingly, producers are being asked to demonstrate that their farming methods meet several environmental standards or criteria. To better meet these types of consumer demands, build public trust and take advantage of emerging markets, Canadian farmers need to show measurable environmental improvements on their farms related to water, GHG emissions, land management and biodiversity.

As such, the GBC recommends an increase in funding allocations to various incentive tools that would help protect agriculture's ecological function and enhance on-farm environmental stewardship. The design and delivery of these incentive programs should be supported by results- and systems-based approaches as well as legal and policy frameworks to ensure that maximum environmental and socio-economic benefit is derived from each investment.

a) Establish a National Perennial Cover Incentive program to improve grassland management practices, protect water quality, reduce GHG emissions and enhance biodiversity and wildlife habitat. AAFC can model this investment on the former GreenCover Canada program (2003-2008), which paid producers for converting physically and economically marginal cropland to pasture land or native cover land for at least a decade. (est. $120M/5 years)

b) Establish a National Land Management and Stewardship Program[18] in collaboration with Environment and Climate Change Canada (ECCC) to restore lost or degrade wildlife habitats (e.g. wetlands, woodlands and hedgerows) and their many ecosystem goods and services (EGS). Under this initiative, partners would match federal funds (1:1) to restore EGS on properties in areas that have experienced high historical habitat loss. Incentive payments would only be provided to landowners who agree to restore and subsequently maintain EGS on their land through long-term habitat conservation easements. (federal est. $250M/5 years)

c) Leverage insurance mechanisms to promote environmentally Beneficial Management Practices (BMPs) on farmland.

1. The GBC recommends that AAFC work with its provincial and territorial counterparts to design a risk management program that would give preferential premium insurance rates to producers who have adopted environmental BMPs, including habitat restoration, in order to increase agricultural resilience against climate change impacts.
2. The GBC recommends that AAFC design, promote and provide financial backing for a new pooled insurance scheme to reduce financial risks to farmers transitioning away from priority pesticides, modelled after the Corn Mutual Fund (Il fondo mutualistico per il mais) program piloted in Italy. This approach reduces the financial risk of significant pest damage to crops, while avoiding the environmental costs of pesticide use and encouraging integrated pest management (IPM) practices. To be eligible for coverage, farmers must buy into the scheme, avoid the use of priority pesticides and demonstrate rigorous implementation of IPM practices. ($3M/year)

d) Rebuild education and outreach capacity to deliver BMP incentive programs. To increase uptake of federal and provincial BMP incentive programs and ensure that they are delivered in a more environmentally strategic and integrative manner, it is recommended that AAFC support the expansion of provincial capacity for knowledge transfer to and among farmers. These well-trained extension specialists would apply the latest scientific research and systems knowledge to provide information and expert advice to producers on how to optimize operational and environmental functionality on their farm. ($8M/year)

e) Support innovation and competitiveness in organic and agro-ecological methods. The GBC recommends that AAFC provide adequate funds for timely maintenance of organic standards and their enforcement to ensure Canadian organic producers can depend on the integrity of the Canada Organic Brand and to help increase their access to the expanding global market for organic products in line with government priorities.[19] ($5M/year)

18 The infographic provides an example of the potential ecosystem service value that would be created over a 33-year timeframe from 31,600 acres of restored wetlands, assuming that two-thirds of total program funding ($116M out of $250M) is matched and used for wetland restoration.

19 As advised by Canadian Organic Growers, Canada Organic Trade Association, USC Canada & Organic Federation of Canada.

2. Invest $108 Million over five years in Science Capacity, Research & Monitoring to Reduce Environmental Risks and Increase Public Trust in Canada's Agriculture

The growth of an environmentally sustainable and climate resilient agricultural sector must be based on, and supported by, sound science, reliable information and comprehensive analysis and evaluation of environmental impacts and benefits. However, budget cuts over the last decade have weakened science capacity in this area. The federal government must maintain, or in some cases restore, and expand scientific research, monitoring, and continuous evaluation related to the following key environmental issues, as they relate to agriculture: climate change, species and habitat loss, pesticide use, water quality and the need for integrated, landscape-level responses to these challenges. Former successful scientific research projects, like the National Agri-Environmental Standards Initiative (NAESI)[20] which developed environmental performance standards for agricultural production, should be revisited and used to enhance agri-environmental policy and programs. Such research is essential to supporting the development of on-farm sustainability metrics and facilitating access to emerging markets for environmentally sustainable products.

a) Support research to evaluate the environmental and economic benefits and costs of implementing BMPs on farmland. To address knowledge gaps identified by the Commissioner of the Environment and Sustainable Development,[21] the GBC recommends that AAFC invest in research evaluating the ecological as well as the economic costs and benefits of various BMPs. As well, we recommend examining how this research can be best applied to generate landscape-scale environmental benefits for society and economic benefits for the producer. Investing in this type of research will support BMP program design and systems-based program implementation. ($5M/year)

b) Support research and knowledge transfer of ecologically sustainable farming practices and approaches (e.g., integrated pest management and organic farming practices[22]) that will reduce farmers' heavy reliance on chemical pest management and improve soil health, water quality, biodiversity and habitat. The GBC recommends that AAFC invest in research to find more environmentally-friendly and economically-viable pest management approaches, including: integrated pest management, organic or holistic farming practices (such as diverse crop rotation and shelterbelts), and the use of native wildlife species as pest control.

c) Establish the Pollinator Conservation Initiative to conserve pollinator biodiversity, and increase food security and sustainability of agro-ecosystems. The GBC recommends that AAFC and ECCC establish a Research Fund ($8M/year) to

20 The National Agri-Environmental Standards Initiative was a $25 million investment (2002-2008) that developed 98 environmental performance standards in support of agri-environmental programming. While the initiative generated state-of-the art scientific information, it was never applied or implemented in program or policy.

21 2008 report of the Commissioner of the Environment and Sustainable Development, "Chapter 3: Managing Environmental Programming - Agriculture and Agri-Food Canada".

22 Examples of organic farming practices: diverse crop rotation, hedgerows & shelterbelts, trap crops and roguing).

enable independent scientific research and innovation in support of managed and wild native pollinators and their habitat in the context of expanding agricultural production and climate change. This Fund would also help fill knowledge gaps related to impacts of managed bees on wild pollinators. This should be accompanied by a Pollinator Protection Program that provides increased scientific capacity operationally ($4M/year) to deliver national baseline monitoring and reporting, set population and habitat targets for wild pollinators, develop national policy and ensure policy coherence.

d) Contribute to the development of decision-support tools (e.g. National Ecosystem Mapping & Monitoring[23]) to enable integrated land-use and watershed management, climate change adaptation and mitigation, sustainable resource development and biodiversity conservation. The GBC also recommends that AAFC, in collaboration with provinces and territories, create a **Pesticides Use Data Collection System** to enable monitoring and reporting of pesticide use by applicators. Key upfront costs of $5 million in 2018. In 2019 and onward, $2M/ year would be required for expert personnel to manage and promote the program to stakeholders.

e) Invest in expanded monitoring of environmental exposure to pesticides. The GBC recommends a carve-out under the CAP to revive and expand ECCC's National Pesticides Monitoring and Surveillance Network. This is needed to support effective assessment and regulation of agricultural pesticides and reduce environmental risks. ($2M/ year)

CONTACT

Agri-Environmental Programming & BMP Research:

Recommendation Lead:
Milana Simikian
National Policy Analyst
Ducks Unlimited Canada
m_simikian@ducks.ca

Jack Imhof
Director of Conservation Ecology
Trout Unlimited Canada
jimhof@tucanada.org

Cameron Mack
Executive Director
Wildlife Habitat Canada
cmack@whc.org

Carolyn Callaghan
Senior Conservation Biologist
Canadian Wildlife Federation
carolync@cwf-fcf.org

Pollinator Conservation and Organic Farming:

Beatrice Olivastri
Chief Executive Officer
Friends of the Earth Canada
beatrice@foecanada.org

Food Policy for Canada:

Satya Ramen
Senior Coordinator, Community Food
Ecology Action Centre
satya@ecologyaction.ca

Pesticides Management and Water Monitoring:

Kathleen Cooper
Senior Researcher
Canadian Environmental Law Association
kcooper@cela.ca

Lisa Gue
Senior Researcher and Analyst
David Suzuki Foundation
lgue@davidsuzuki.org

23 For more information please see "Complementary Cross-Cutting Recommendations Section - Sharing Environmental Data & Science System" later in this document.