

Eight (8) Recommended Priority Actions for the Next Policy Framework for Canadian Agriculture

To action and incentivize (1) climate change mitigation, (2) biodiversity preservation & enhancement, (3) sustainability enhancement, and (4) resiliency capacity on Canada's farms and ranches

August 19, 2021

POLICY BRIEFING NOTE

Developed and proposed by:



With input and review from supporting industry partners:



WHO WE ARE

The **Canadian Wildlife Federation's** (CWF) mission is to conserve and inspire the conservation of Canada's wildlife and habitats for the use and enjoyment of all. The Canadian Wildlife Federation conducts its activities through a cooperative approach – working with people, business, non-government organizations, and government to inspire collaboration in achieving wildlife conservation. CWF uses the best available science-based information to develop policies, programs and communications. CWF has over 300,000 supporters and reaches over 2.5 million Canadians each year.

Ducks Unlimited Canada (DUC) is a grassroots, science-based conservation organization that has been working across Canada for over 80 years to conserve, restore and manage wetlands and associated habitats for North America's waterfowl. These habitats benefit other wildlife, people and our environment. DUC has over 110,000 supporters nationally and works in all provinces and territories across Canada.

OUR ASK – ACTIONING AND INCENTIVIZING 8 RECOMMENDED PRIORITY ACTIONS IN THE NEXT POLICY FRAMEWORK FOR CANADIAN AGRICULTURE

Given current federal government policy and spending priorities for agriculture, economic recovery and environmental stewardship, the Canadian Wildlife Federation and Ducks Unlimited Canada, in consultation with several agriculture stakeholders, request that the Minister of Agriculture and Agri-Food with her provincial and territorial counterparts, action and incentivize four priority focal areas – Mitigating Climate Change, Preserving Biodiversity, Enhancing Sustainability, Increasing Farm and Ranch Resiliency – through eight recommended priority actions, in the Next Policy Framework (NPF) for Canadian Agriculture.

These eight recommended priority actions are:

1. **Negotiate an “everyone wins” approach to limit conversion of prime agricultural lands, grasslands, wetlands and forested areas.**
2. **Increase emphasis for optimizing water use through sound agricultural policy and programming.**
3. **Reinstate funding for a National Perennial Forage Conversion Program.**
4. **Establish a Marginal Areas Program (MAP) to naturalize land with little or no return on investment.**
5. **Bolster technology transfer in areas with high public good value which are not adequately supported to accelerate adoption of Best Management Practices (BMPs).**
6. **Support new socio-economic & scientific research to quantify the economic and environmental benefits of BMPs.**
7. **Prioritize the resilience, productivity, and carbon storage capacity of Canada's soils.**
8. **Facilitate the development of a market-based system for valuating ecological services derived from the agriculture sector, including carbon capture.**

These eight priority actions will enhance governments' ability to deliver in each of the four priority focal areas by: i) enhancing multiple stakeholders' adoption of common approaches to protect ecological goals while ensuring ongoing agricultural profitability and productivity, ii) encouraging the majority of farmers and ranchers to adopt BMPs in their operations through meaningful incentives and, iii) stimulating investment in innovation to kick-start new, and accelerate existing, initiatives that enhance both profitability and environmental gains on lands used for agriculture.

THE NEXT POLICY FRAMEWORK NEEDS TO ATTRACT ALL FARMERS AND RANCHERS

Under the Canadian Agricultural Partnership (CAP), in effect since April 1, 2018, the federal government has reached out to the provinces and to farmers and ranchers across Canada to formalize a framework for programs and initiatives to advance pressing economic, environmental, and social objectives in the agriculture and agri-food sector.¹

Since then, this government has set out further policy and spending priorities which impact agriculture, economic recovery and environmental stewardship generally.² These policy priorities have been given prominence in the Supplementary Mandate Letters to the federal Minister of Agriculture and Agri-Food and the Minister of Environment and Climate Change, and in the Mandate Letter to the newly created post of the Special Representative for the Prairies issued by the Prime Minister on January 15, 2021.³ In the Minister of Agriculture and Agri-Food's Supplementary Mandate Letter, the importance of government action in the agriculture and agri-food sector to "fight climate change," "stop biodiversity loss," "strengthen... sustainable food supply chains" and "build resilience" are all expressly articulated.

As well, Canada's Industry Strategy Council has recently singled out agriculture as having an important role in the recovery and reimagining phases of a post-COVID-19 Canada.⁴ It is expected that agriculture will have a significant role in contributing not only to Canadian economic growth, but also in meeting our international climate change and biodiversity commitments. Agriculture has been identified as being a sector that can embrace innovation to bring about both economic and environmental successes.⁵ Policies and measures to concretize climate change mitigation and adaptation, biodiversity preservation, more sustainable production systems, and resilience against future economic, social, political and biological shocks are ones that this government foresees as key to Canada's future prosperity.

So do we.⁶

Along with our supporting industry partners whose logos appear below, we believe that success in securing true economic, environmental, and social sustainability in the multi-faceted aspects of Canadian agriculture requires a thoughtful reimagining of public policy and delivery options for achieving desired outcomes.

However, reimagining and implementing policies and measures to achieve these ends is complex. First, sound policies and measures need to resonate not only with aims and aspirations of the federal government, provincial/territorial governments, and the general public, but also with Canadian farmers and ranchers. Environmental policy and programs for agriculture need to be tempered by experienced voices from Canadian farmers and ranchers themselves. This is even more true as we move forward to tackle the complex challenges we face with climate change mitigation, biodiversity preservation, environmental sustainability of our production systems and the resilience of Canadian farmers and ranchers, their families and rural communities.

Canadian farms provide vital habitat for wildlife in the most heavily altered landscapes in Canada. How we grow our food affects wildlife and climate change. Sustainable food systems must have healthy environments. A changing climate is bringing stressors affecting land resilience, food production and wildlife. Encouraging environmentally sustainable food production systems in Canada would result in greater climate change resilience for the sector, which also will assist the federal government to meet our international commitments.

Some consider that Canada, with the marked exception of the excellent implemented schemas of the Canadian Roundtable on Sustainable Beef, the Dairy Farmers of Canada and the emerging work of the Canadian Roundtable for Sustainable Crops, Canada's Agri-Food Index and the Canadian Agri-Food Sustainability Initiative, is currently lagging behind certain key international trading partners, including Europe and the United States, in demonstrating environmental sustainability with tangible benchmarking within the agriculture and agri-food sector. Should we fail to lay down a comprehensive sustainable food production policy, it could lead us to being dictated to by countries or blocks that do. Instead, the development of a comprehensive Next Policy Framework for Canadian Agriculture is the moment for Canada to assert itself as a global leader in sustainable agriculture. In so doing, Canada would position itself for achieving economic targets for the agriculture and agri-food sector, especially given the increasing demands of food consumers for proof of environmental sustainability of production systems.

We believe that an obvious initiative in which to concretize new aspirations, commitments, policies and programs for the agriculture and agri-food sector is in the Next Policy Framework for Canadian Agriculture. If the whole of the sector can be engaged in adoption of initiatives agreed to under the next framework (and CWF and DUC feel strongly that uptake of measures should focus on the entire agricultural landscape), then Canadian farms and ranches can be strong contributors to the economic and environmental objectives desired by this government. In short, agriculture and agri-food will, and must, be part of the solution.

All sizes and styles of farm operations and ranches will benefit from tangible encouragement to engage in practices which simultaneously enhance profitability and promote stewardship of our natural capital. Based on the 2016 Census of Agriculture, 7.6 per cent of farms accounted for over 60 per cent of gross receipts. Yet, while Canada's larger farms and agri-businesses exert a massive influence on the landscape, operators of these enterprises appear to under-participate in BMP programming and, in some cases, may not even be eligible to participate in some of them. Engaging larger-scale farmers and ranchers represents a vital opportunity moving forward, and if the NPF, and other programming, does not engage these operators, an opportunity to make meaningful impacts on the landscape will be dramatically reduced. Of course, encouraging full spectrum participation in government programming aimed at promoting BMPs will need to be fiscally sound for governments and financially attractive for large farms, ranches and smaller operations alike. Sound government policy initiatives must make clear efforts to demonstrate that BMPs supporting sustainable agricultural practices have a sound business case to encourage their adoption by a majority of farmers and ranchers, and particularly by those who manage a large proportion of the working agricultural lands in Canada.

Additionally, DUC and CWF also support investments and efforts that would support smaller farm operations, as well as other production systems, that have the potential to inform and positively influence large-scale agriculture. Some best practices learned from smaller production systems may have scale-up potential where the benefits and attributes of these production methods can make meaningful impacts on the overall landscape. These, of course, will be some of the win-win BMPs for land management, where the practices will then impact 100 per cent of Canada's farming and ranching landscape. Ultimately, what is most desirable is identifying and promoting BMPs that produce desired outcomes regardless of the production system employed.

To this end, what follows are two annexes which set out in further detail why and how agriculture can more fully become "part of the solution, not part of the problem."

In Annex 1, we explore how strategic policy actions for Canada’s agricultural future can contribute “wins” in each of the four focal priority areas – (1) mitigating climate change; (2) preserving & enhancing biodiversity; (3) enhancing environmental sustainability of production systems; and (4) increasing resilience among Canadian farmers and ranchers.

Annex 2 sets out and expands upon how this can be achieved through actioning and incentivizing eight priority actions that must be included in the NPF for Canadian Agriculture. These eight actions, if implemented, have the potential to deliver significant positive impacts on the agricultural landscape and to the operations on it while achieving Canada’s environmental and economic goals.

We realize that our recommendations will require further study, consultation, and negotiation to successfully overcome any legal and operational complexities posed by federal-provincial agreements. The time is at hand for the federal government to demonstrate a strong collaborative approach with the provinces to ensure that practices and priorities important to all Canadians are acted on within the NPF for Canadian Agriculture. Given that federal funding is already used to support provincially administered environmentally friendly farming practices under the CAP, the NPF for Canadian Agriculture should expand environmental initiatives and also articulate clearer expectations and stronger reporting requirements for provinces to demonstrate their meaningful contribution to Canada’s economic, environmental and social commitments and aspirations.

Finally, we believe that this entire discussion needs to be urgently addressed at the departmental as well as ministerial levels of federal and provincial agriculture ministries and should therefore be an agenda item at the next First Ministers of Agriculture meeting, slated for later in 2021.

Proponents



Supporting Industry Partners



ANNEX 1 - 4 PRIORITY FOCAL AREAS FOR ACTION IN THE NPF

There are four priority focal areas where AAFC can lead meaningful improvements to the environmental performance of agricultural land while supporting both economic and social benefits to Canadian farmers and ranchers, large or small. These areas are:

- **Climate Change** – CWF, DUC and supporting industry partners realize that Canadian agriculture can and must play a meaningful role in achieving Canada’s GHG reduction goals by fostering science-based, incentivized practices that encourage soil-based carbon storage in soils and wetlands, and by employing technologies and management approaches that reduce overall emissions and the intensity of emissions.
- **Biodiversity** – Canada’s agricultural land biodiversity scores are in decline, particularly on cropped landscapes. CWF, DUC and supporting industry partners see that these trends can be flattened and reversed through adoption of BMPs.
- **Sustainability** – CWF, DUC and supporting industry partners view environmental sustainability as an important opportunity to advance agriculture and the environment in Canada. AAFC has made important investments in both the Canadian Roundtable for Sustainable Crops and the Canadian Roundtable for Sustainable Beef. Both groups have identified opportunities where, by employing targeted supports, Canadian farmers and ranchers can improve their sustainability. Most recently, AAFC’s convening of a new Sustainability Sector Engagement Table promises to be a place for dialogue on the issues and policies that most urgently need to be addressed across the agriculture and agri-food sector. Important tenets of sustainability include simultaneously increasing production on existing agricultural lands while reducing environmental impacts of agriculture and encouraging stewardship practices, like 4R Nutrient Stewardship. This will enable Canada to ensure the health and productive capacity of the agriculture landscape to meet the demands of a world population through 2100 and beyond. As well, players in the agriculture and the agri-food sector need to continue to adopt technological innovation to achieve better economic and environmental outcomes, including actions to reduce production losses. Increasingly as market demands for minimum sustainability practices are required by trading partners, this can create export opportunities for Canadian producers.
- **Resilience** – The shocks of trade irritants and market closures, of human and animal disease pandemics, and the risks and ramifications of global social and political unrest, have brought into stark focus the necessity for Canadian agriculture to be resilient. Canadian agriculture resilience and its ability to withstand system-wide shocks requires several layers ranging from a general suite of Business Risk Management (BRM) programs for cyclical pricing and natural disaster relief, to the adequacy of the human resource base underpinning the Canadian agriculture sector, to a resilience that comes from protecting the natural resource base that is vital to Canadian agriculture. Our policy recommendations focus on the resilience that comes from protecting the natural resource base, which is the lifeblood of Canadian agriculture. Practices and production systems that favour soil health, access to adequate water resources, and maintenance of them, need further attention and development to support a productive and resilient agricultural sector.

With these four priority focal areas in mind, CWF and DUC, with support from industry partners, recommend eight priority actions to be actioned and incentivized in the Next Policy Framework.

ANNEX 2 - 8 SPECIFIC RECOMMENDATIONS TO ACTION AND INCENTIVIZE IN NPF

Under Growing Forward 1 and 2 and now under CAP, policy and program initiatives have focused on BRM measures⁷, and on policies and programs to advance the goals of “growing trade and expanding markets,” “innovative and sustainable growth in the sector,” and “supporting diversity and a dynamic, evolving sector.”⁸ Under the NPF for Canadian Agriculture, the policy and program initiatives must preserve and advance existing envelopes and add to them an additional envelope for encouraging “environmental sustainability.” The pieces of the framework “pie” should not be made respectively smaller to accommodate this, but instead the pie should be expanded to further the important government priorities for economic and environmental benefits to accrue from Canadian agriculture. To achieve these outcomes, we see the following eight recommendations as achievable and necessary objectives for engagement of the entire sector.

“Finding common ground” to protect environmental values while supporting agricultural profitability and productivity

1. **Negotiate an “everyone wins” approach to limit conversion of prime agricultural lands, grasslands, wetlands and forested areas.** Urban sprawl, as in the past, continues to convert productive and sustainable farmland, grasslands, wetlands, and forested areas into urban spaces. Conversion of threatened ecosystems in these areas, whether due to urban development or other significant agricultural land use changes, is a net loss for habitat preservation. More is needed to protect these vulnerable habitats. Canada currently lacks, and would benefit from building, a comprehensive land use strategy for Canada, which would engage farmers on strategies that discourage the loss of agricultural land and habitat and encourage smart urban growth and sustainable cropland agricultural uses.
 - **Climate Change**: Drainage and land clearing are major contributors to GHG emissions. Limiting land use changes like losses of farm and ranch land and biodiversity to urban sprawl are primary concerns, but measures, such as the inclusion of perennial crops in cropping rotations, must also be considered for implementation.
 - **Biodiversity**: Drainage and land clearing remove the most important habitats from the landscape in some of the most highly altered areas. Habitat loss is the main driver of declining biodiversity scores on Canadian farms and ranches. Loss of native grasslands and wetlands are of particular concern.
 - **Sustainability**: Canada is woefully behind on addressing land use change from a sustainability perspective. However, discussions need to be advanced, and standards established on a national or regional basis to advance objectives of limiting inappropriate land conversion. This would be in preference to adopting other international or foreign national standards which may not be appropriate for the Canadian context.
 - **Resilience**: Fragile lands, whether newly converted or ones traditionally farmed but for which annual financial returns are very low or negative are often subject to vulnerabilities of weather (flood, drought) and contribute little to overall resilience of an agricultural operation.

2. **Increase emphasis for optimizing water use through sound agricultural policy and programming.** The strategy should protect the presence and quality of water in Canada and, while regionally developed and applied, should be based on a cohesive national perspective. This could be facilitated through, or at least include a role, for the new Canada Water Agency. This was a recommitment in the Government of Canada’s most recent Throne Speech.⁹ In order to be effective, a focus on water should include development of a sectoral strategy for water quantity and quality both on the farm and leaving the farm. As production systems intensify in Canada in response to increasing demand for agricultural products, there is a potential that increased wetland drainage and/or runoff of agricultural inputs will occur. Agriculture inputs entering waterways can have effects on water quality. Using 4R Nutrient Stewardship (Right Source @ Right Rate, Right Time, Right Place[®]) can help reduce unwanted nutrients entering the waterways while sustainably intensifying productive systems. Similarly, maintaining wetlands on the landscape provide a first, and last, line of defense from runoff of agricultural inputs.
- Climate Change: Drainage and land clearing are major contributors to GHG emissions through loss of carbon stocks and equipment emissions. The inclusion of perennial crops in cropping rotations can optimize water use and would increase carbon stocks.
 - Biodiversity: Wetlands and riparian vegetation are biodiversity treasures within agricultural landscapes. Protecting their presence and water quality are critical to ensuring their value is maintained or improved.
 - Sustainability: As Canada’s climate changes, water is projected to be increasingly limiting. A strategy to ensure that wetlands continue to serve their ecological functions will simultaneously support agricultural production.
 - Resilience: The role of available and optimized water access is essential for a Canadian agriculture system. This increased focus on water should be mindful of the pressures that might unduly suggest that irrigation be advocated as a productivity solution over current ecologically sound practices of using native cropland for animal protein production. Inappropriate use of irrigation may exacerbate the practice of bringing fragile lands under cultivation.

“Offering carrots” to encourage all farmers and ranchers to adopt BMPs

3. **Reinstate funding for a National Perennial Forage Conversion Program**, like the former GreenCover Canada. A forage conversion program would aim at actual field-scale conversion and have a ready application to the cattle industry. Such a program, perhaps more targeted than its predecessor, would clearly articulate and pursue sound principles to realize the following objectives: (1) a net increase in perennial crop coverage; (2) protection and support for maintaining existing native grasslands; (3) increased cropping of tame perennials in agricultural crop rotations; (4) financial rewards for beneficial practices falling fairly to all those who steward grasslands as part of their production systems; and (5) improvements to the integrity of grasslands, such as rewarding practices that encourage the elimination of invasive species. Where the goal is to keep landscape out of annual crop production, such a program should be designed to prevent the distribution of perverse incentives, for example where producers might be tempted to seek benefits for conversion of their grasslands and then to bring it into permanent cover, while other landholders who keep their native grasslands received no incentive.

- Climate Change: Conversion of some fragile cropped land to perennial cover for hay and pasture has the potential to make meaningful contributions to Canada’s GHG mitigation goals.
- Biodiversity: Enhancing cropped land with interspersed productive crop land and perennial cover, including both native and some tame grass species, directly increases grassland habitat and indirectly supports the retention and stewardship of native grasslands. Grasslands restored adjacent to wetlands and watercourses has particularly high value.
- Sustainability: Removing fragile lands from crop production and establishing perennial cover in those areas should provide superior economic returns and reduce production risk while improving the economic performance and productivity of the agricultural landscape.
- Resilience: Restoring soil carbon through perennial forage production will advance the overall resilience of the Canadian agricultural land base.

4. Establish a Marginal Areas Program (MAP) to naturalize land with little or no return on investment (ROI).

A new MAP could aim at removing small areas (<30 acres per quarter section (160 acres)) from production, with the target audience being grain farmers. In a 2000 study, the Prairie Farm Rehabilitation Administration of AAFC identified 3 to 5 million hectares of “economically and environmentally unsustainable cultivated marginal land in crops” plus an additional 4 to 6 million hectares of “economically unsustainable cultivated land in crops” on the Canadian Prairies alone.¹⁰ Precision/Smart agriculture has the potential to precisely delineate (assuming readily accessible and reliable broad band internet services) these areas within fields, determine those areas that can be removed from production with minimal impact on field efficiency and forecast the economic benefit to the farmer. Programs like “Farm Your Best Acre” of the Canadian Forage and Grassland Association should be encouraged. We recommend strategic investment so farmers and ranchers can see advantages to converting fragile areas away from cropland and with the assistance of Precision/Smart agriculture technology, can assess which lands are productive and which are fragile providing little or no ROI.

- Climate Change: Removing fragile areas from crop production directly reduces GHG emissions associated with crop production while simultaneously creating a carbon sink by establishing perennial cover, restoring wetlands and riparian areas.
- Biodiversity: Areas restored to perennial cover and/or wetlands will disproportionately contribute toward biodiversity within cropped landscapes. Biodiversity values, such as pollination and water storage provide tangible benefits to producers.
- Sustainability: Removing lands from production that provide a negative return on investment results in a net economic gain for the production system while improving environmental performance of the landscape.
- Resilience: Encouraging producers to keep fragile lands out of crop production will advance the overall resilience of the Canadian agricultural land base.

“Investing in innovation” to kick-start new, and accelerate existing, agro-eco initiatives

5. Bolster technology transfer in areas with high public good value which are not adequately supported to accelerate adoption of Best Management Practices (BMPs).

This priority is particularly acute when BMP adoption is slower than desired, when public good is high and where industry may require support for implementation. The adoption and application of Integrated Pest Management (IPM), 4R Nutrient Stewardship (including variable rate application of crop inputs and enhanced efficiency fertilizers), and buffer zones could enjoy accelerated implementation with appropriate technology being made available to producers. This investment could be supported or undertaken by the private sector, the public sector or a combination thereof. Fertilizer Canada has done good work in promoting 4R Nutrient Stewardship, but would benefit from increased capacity, particularly in Western Canada. Another piece of the puzzle is addressing the lack of uniform high-speed broad band internet service to all Canadian farmers and ranchers who often need such service to take up new technologies.

- Climate Change: Broad adoption of 4R Nutrient Stewardship will make meaningful contributions toward Canada’s GHG mitigation goals without sacrificing productivity.
- Biodiversity: Broad application of IPM will decrease impacts of pest control on non-target species. 4R Nutrient Stewardship can spare land for nature through its support of higher yields and will decrease nutrients leaving fields that could diminish aquatic and terrestrial biodiversity off-farm. Buffer zones protect existing habitats while providing additional habitat within cropped fields. Re-establishing buffer zones around terrestrial and aquatic habitats will also sequester carbon.
- Sustainability: IPM is one area where the Canadian Roundtable for Sustainable Crops Metrics Platform identified as a low area of uptake and/or understanding on Canadian farms. IPM is a criterion in many international sustainability platforms.
- Resilience: Improving soil nutrient profiles and providing pest control choices to producers will enhance soil and operator health and farm and ranch resilience.

6. Support new scientific research to quantify the economic and environmental benefit of BMPs.

Complementary research should be conducted to determine ROIs for adoption of BMPs, that is the incentive value at which farmers will enroll in the BMP. This research will support optimization of future investments in agri-environmental programming and will require the formation and deployment of a team specializing in agri-environmental management. Perhaps this can be one of the roles contemplated by AAFC’s new Sustainability Sector Engagement Table. It is becoming clear that our trading partners, particularly the United States, the European Union, Britain and Australia, are directing more public funds to enhance the provision of ecological goods and services (EGS) from rural landscapes.

- Climate Change: Quantifying carbon sequestration benefits from BMPs will support future investments aimed to reduce Canada’s carbon footprint and can shed light on how emissions per unit of production could be a useful measure in understanding this footprint.
- Biodiversity: Environmental programming, from both governments and ENGOs, is often conducted with very scarce funding. Ensuring that efforts and investments from

government, academia and the private sector are coordinated and/or complementary would result in maximized benefits for Canada.

- Sustainability: Investments in science and data, including the completion of partial or dated geospatial data that can accurately delineate crops and habitat types will be critical for any effective management or quantification of environmental values on the agricultural landscape. Such investments are essential for communication, incentivization, supporting sustainable sourcing metrics and regulatory purposes.
- Resilience: Facilitating better decision-making for operators through better data will support operator resilience through optimization of future investments in agri-environmental programming.

7. **Prioritize the resilience, productivity and carbon storage capacity of Canada’s soils.** Soils are the basis for agricultural production in Canada. Canada’s government has not had a focused effort on soil health since the 1984 Senate Committee Report “Soil at Risk”¹¹. Establishing a National Strategy for Soil Health, adoption of zero and minimal tillage as suggested by past and present reports and activities of the Senate of Canada and of the Soil Conservation Council of Canada should be a high priority.

- Climate Change: Healthy soil managed under reduced tillage, diverse rotations, proper maintenance of soil nutrients, inclusion of cover crops and/or perennials in rotation, and modified grazing practices can make meaningful contributions toward Canada’s climate change mitigation goals.
- Biodiversity: Farming practices that increase soil organic material like zero tillage, diverse crop rotation and BMPs for livestock grazing and which permit extended periods where there are live growing roots in the ground demonstrate enhanced soil biodiversity. Below-ground biodiversity should be an important focus.
- Sustainability: Increased productivity with decreased environmental impact are cornerstones to sustainable production systems. Healthy Canadian soils will ensure productivity, profitability and resilience in food production for future generations.
- Resilience: Soil health is the natural capital asset of greatest importance to agricultural production. Without maintaining and improving this resource, resiliency is impossible.

8. **Facilitate the development of a market-based system for valuating ecological services derived from the agriculture sector, including carbon capture,** to bring value to Canadians and transparency to international food consumers. These could include GHG reductions, carbon storage, biodiversity, and water quality/quantity improvement. Developing and consolidating reliable indices of ecological services across the country would be of great assistance in operationalizing this endeavour.

- Climate Change: Several protocols are in place in some jurisdictions in Canada recognizing GHG reductions from practices such as 4R Nutrient Stewardship, forage conversion, the grasslands protocol and zero tillage.
- Biodiversity: Currently no marketplace exists that provides security to Canada or to Canadian companies to make investments with an assured outcome. Establishment of such a market system that would allow Canadians to make credible claims and investments to improve our overall biodiversity.

- Sustainability: Canada is rich in ecological goods and services, which has the potential to position Canada very favourably in its ability to market sustainable products. Consumers are now motivated to buy products that they perceive as providing improved environmental performance. Establishing a Canadian standard for the production and trade of ecological services could provide an economic advantage to those farmers and ranchers producing superior environmental value. It could also help ensure that investments intended to produce a desired environmental state actually produce that outcome.
- Resilience: Developing a market system that would allow Canadians to make credible claims and investments to improve our overall biodiversity and which could provide monetary incentives to Canadian farmers and ranchers will increase sector resilience and optimize future investments in agri-environmental programming.

ENDNOTES

¹ “Canadian Agricultural Partnership: Innovate. Grow. Prosper. (2018-2023)”, Agriculture and Agri-Food Canada (AAFC) website, <https://www.agr.gc.ca/eng/about-our-department/key-departmental-initiatives/canadian-agricultural-partnership/?id=1461767369849>, in force as of April 1, 2018.

² **2019**: “Moving Forward Together - Speech from the Throne” (December 5, 2019); “Minister of Agriculture and Agri-Food Mandate Letter” (December 13, 2019); “Minister of Environment and Climate Change Mandate Letter” (December 13, 2019); **2020**: “National Inventory Report 1990-2018: Greenhouse Gas Sources and Sinks in Canada - Canada’s Submission to the UN Framework Convention on Climate Change” (April 14, 2020); “A Stronger and More Resilient Canada - Speech from the Throne” (September 23, 2020); “Supporting Canadians and Fighting COVID-19; Fall Economic Statement 2020” (November 30, 2020), “Restart, Recover and Reimagine Prosperity for all Canadians”, Report from Canada’s Industry Strategy Council (December 11, 2020). In particular, Throne Speech 2020 at pages 23-24, states that “The Government will ... recognize farmers, foresters, and ranchers as key partners in the fight against climate change, supporting their efforts to reduce emissions and build resilience.”

³ All three mandate letters were issued by the Office of the Prime Minister on January 15, 2021 and are available at <https://pm.gc.ca/en/mandate-letters>.

⁴ In Canada’s Industry Strategy Council Report, the Council clearly identified the economic and environmental importance of the agriculture and agri-food sector and specifically sets out a targeted analysis for the sector’s contribution under “Pillar 4: Leverage our agri-food advantage to feed the planet” at pages 60-61.

⁵ Canada’s Industry Strategy Council Report, under Pillar 4 and “Pillar 3: Build innovative and high-value manufacturing where we can lead globally” at pages 56-59.

⁶ Those organizations whose logos are affixed to this document have engaged in active discussion with CWF and DUC over the past several months, have reviewed and edited the document with us and are in general agreement with our recommended priority actions. As well, other industry organizations were consulted including the Canadian Roundtable on Sustainable Beef, the Canadian Roundtable on Sustainable Crops, the Dairy Farmers of Canada, and the Grain Growers of Canada. While there was interest from these organizations in the document’s contents, certain reasons prevented each from actively commenting on or formally endorsing the wording or recommendations of this document. Overall, we were very pleased to see such a broad consensus on proposed actions and to have heard so many supportive comments from those we have consulted in preparing this document.

⁷ See AAFC website, Business Risk Management Programs, <https://www.agr.gc.ca/eng/agricultural-programs-and-services/business-risk-management-programs/?id=1490812852619>.

⁸ See AAFC website, Canadian Agricultural Partnership, <https://www.agr.gc.ca/eng/about-our-department/key-departmental-initiatives/canadian-agricultural-partnership/?id=1461767369849>.

⁹ Throne Speech 2020 at page 26, which states that “When the Prairie Farm Rehabilitation Administration was closed by a previous government, Canada lost an important tool to manage its waters. The Government will create a new Canada Water Agency to keep our water safe, clean, and well-managed. The Government will also identify opportunities to build more resilient water and irrigation infrastructure.”

¹⁰ “Prairie Agricultural Landscapes: A Land Resource Review” by Agriculture and Agri-Food Canada – Prairie Farm Rehabilitation Administration (Canada, 2000) at page 15, available at <http://biblio.uqar.ca/archives/30466423.pdf>.

¹¹ “Soil at Risk: Canada's Eroding Future: a Report on Soil Conservation” by the Senate Standing Committee on Agriculture, Fisheries, and Forestry to the Senate of Canada (Canada: 1984).