



**Food and Agriculture
Organization of the
United Nations**



**International Treaty
on Plant Genetic Resources
for Food and Agriculture**

**Second Reporting Cycle
Report on the implementation of the International
Treaty on Plant Genetic Resources for Food and
Agriculture (ITPGRFA)
CANADA**

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STANDARD REPORTING FORMAT COUNTRY REPORT ON COMPLIANCE –

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Article 4: General Obligations

1. Are there any laws, regulations procedures or policies in place in your country that implement the Treaty?

Yes X

No

If your answer is 'yes', please provide details of such laws, regulations, procedures or policies:

Agriculture and Agri-Food Canada is the Government of Canada's lead Department for the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA). The Department maintains plant genetic resources in the three genebank collections as part of the Canadian National Plant Germplasm System: Plant Gene Resources of Canada in Saskatoon, Saskatchewan; the Canadian Clonal Genebank in Harrow, Ontario; and the Canadian Potato Gene Resources in Fredericton, New Brunswick. All germplasm material from these collections is distributed using the Standard Material Transfer Agreement of the ITPGRFA.

2. Are there any other laws, regulations, procedures or policies in place in your country that apply to plant genetic resources?

Yes X

No

If your answer is 'yes', please provide details of such laws, regulations, procedures or policies:

There are various policies and legislations that relate to sustainable use and conservation of plant genetic resources for agriculture as well as those related to plant breeding, plant protection and seeds. They include:

- **Canada Grain Act:** An Act that regulates Canada's grain quality and handling standards. Grains regulated under the Canada Grain Act are: Barley, Beans, Buckwheat, Canola, Chick peas, Corn, Faba-beans, Flaxseed, Lentils, Mixed grain, Mustard seed, Oats, Peas, Rapeseed, Rye, Safflower seed, Soybeans, Sunflower seed, Triticale, Wheat. Crops that are not on the list would not be subject to regulations under the Canada Grain Act. Examples include: forages, spices, canary seed, camelina, solin, *Brassica carinata* (known as Ethiopian mustard), quinoa, spelt and KAMUT® khorasan wheat.
- **Canadian Environmental Protection Act:** The Act provides a legislative basis for pollution prevention, as well as the protection of the environment and human health. The goal of the Act is to contribute to sustainable development to meet the needs of the present generation without compromising the needs of future generations.
- **Department of Agriculture and Agri-Food Act:** The Act that establishes the Department of Agriculture and Agri-Food within the Government of Canada, over which the Minister of Agriculture and Agri-Food appointed by commission under the Great Seal shall preside.

- **Health of Animals Act:** Regulations under the Act are intended to protect animals and animal health. They provide for the control of diseases and toxic substances that may affect terrestrial and aquatic animals or that may be transmitted by animals to persons.
- **Human Pathogens and Toxins Act:** This Act establishes a safety and security regime to protect the health and safety of the public against the risks posed by human pathogens and toxins.
- **Plant Breeders' Rights Act:** The Act and its regulations provide legal protection to plant breeders for new plant varieties as a form of intellectual property.
- **Plant Protection Act:** The purpose of this Act is to protect plant life and the agricultural and forestry sectors of the Canadian economy by preventing the importation, exportation and spread of pests and by controlling or eradicating pests in Canada. The Canadian Food Inspection Agency is the responsible agency for issuing permits to import live microbial cultures/insects.
- **Plant Protection Regulations:** Regulations to address the prevention of the importation, exportation and spreading of pests injurious to plants and provision for their control and eradication, as well as the certification of plants.
- **Safe Food for Canadians Act:** This act covers food commodities including their inspection, safety, labelling and advertising, import, export and interprovincial trade, the establishment of standards, the registration or licensing of persons who perform certain activities related to them, the establishment of standards governing establishments where those activities are performed and the registration of establishments where those activities are performed.
- **Seeds Act:** Under this act, except as provided by the regulations, no person shall: (a) sell, import into, or export from, Canada any seed unless the seed conforms to the prescribed standard and is marked and packed and the package labelled as prescribed; or (b) sell or advertise for sale in Canada or import into Canada seed of a variety that is not registered in the prescribed manner.
- **Seeds Regulation:** Made under the authority of the Seeds Act, regulates the quality of seeds including seed potatoes, as well as the testing, inspection, and sale thereof.
- **Species at Risk Act:** The main purpose of the Act is to protect wildlife species from being extirpated or becoming extinct and to help re-establish lost species. It includes lists of organisms for each kingdom, by species, that have been categorized as being extinct, extirpated, endangered, threatened or of special concern.
- **Transportation of Dangerous Goods Act:** The regulations under this Act are a set of rules that prescribe safety standards and shipping requirements for thousands of different dangerous goods. The Regulations also provide a means of communicating the nature and level of hazard and risk associated with these dangerous goods.
- **Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act:** The purpose of is Act is to protect Canadian and foreign species of animals and plants that may be at risk of overexploitation due to illegal trade and also to safeguard Canadian ecosystems from the introduction of species considered to be harmful. It accomplishes these objectives by controlling the international trade and interprovincial transport of certain wild animals and plants, as well as their parts and derivatives.

3. Is there any law, regulation, procedure or policy in place in your country that needs to be adjusted / harmonized¹ to ensure conformity with the obligations as provided in the Treaty?

¹ For the purpose of this report, a Contracting Party may choose whichever term (adjusted or harmonized) is appropriate in relation to their legal systems.

Yes

No

If your answer is 'yes', please provide details of such adjustments and any plans to make those adjustments:

Article 5: Conservation, Exploration, Collection, Characterisation, Evaluation and Documentation of Plant Genetic Resources for Food and Agriculture

4. Has an integrated approach to the exploration, conservation and sustainable use of plant genetic resources for food and agriculture (PGRFA) been promoted in your country?

Yes

No

5. Have PGRFA been surveyed and inventoried in your country?

Yes

No

If your answer is 'yes', please provide details of your findings, specifying species, sub-species and/or varieties, including those that are of potential use:

The three genebanks of the Canadian National Plant Germplasm System report annually on their *ex situ* germplasm holdings of PGRFA for global monitoring of progress on the Sustainable Development Goals (SDG), Indicator 2.5.1a of the Global Indicator Framework for SDG adopted by the UN General Assembly in July 2017. The information is published by the FAO Commission on Genetic Resources on the WIEWS website ([WIEWS - World Information and Early Warning System on Plant Genetic Resources for Food and Agriculture | Food and Agriculture Organization of the United Nations \(fao.org\)](http://www.wIEWS.org)).

If your answer is 'no', please indicate:

- Any difficulties encountered in surveying or inventorying PGRFA;
- Any action plans to survey and inventory PGRFA;
- The most important PGRFA that should be surveyed and inventoried:

6. Has any threat to PGRFA in your country been identified?

Yes

No

If your answer is 'yes', please indicate:

- The species, subspecies and/or varieties subject to such threats;
- The sources (causes) of these threats;
- Any steps taken to minimise or eliminate these threats;
- Any difficulties encountered in implementing such steps:

Canada recognizes the ongoing need to pay attention to the effects of urbanization, climate change on crop wild relatives.

Agriculture and Agri-Food Canada's Strategic Plan for Science, released in 2022, is a vision for how research and development activities can tackle the grand challenges of today and tomorrow, and reflect current Government priorities ([Agriculture and Agri-Food Canada's Strategic Plan for Science - agriculture.canada.ca](https://www.agriculture.canada.ca)). Within the Science and Technology Branch, a science portfolio dedicated to Biodiversity which, among other topics, covers PGRFA related issues including the conservation and sustainable use of genetic resources.

7. Has the collection of PGRFA and relevant associated information on those plant genetic resources that are under threat or are of potential use been promoted in your country?

Yes

No

If your answer is 'yes', please provide details of the measures taken:

Sporadic collections of native Canadian species that are plant genetic resources for food and agriculture have been conducted by Agriculture and Agri-Food Canada. This has included germplasm of forages, rangeland species, crucifers and crop wild relatives of flax and sunflower. Relevant information is provided in:

Canada's Country Report for the Third Report on the State of the World's Plant Genetic Resources for Food and Agriculture. AAFC, Ottawa 106 p.

([https://agriculture.canada.ca/sites/default/files/documents/2022-](https://agriculture.canada.ca/sites/default/files/documents/2022-07/Canadas_Country_Report_for_3rd_Rpt_on_State_of_the_World_PGRFA_EN-Final.pdf)

[07/Canadas Country Report for 3rd Rpt on State of the World PGRFA EN-Final.pdf](https://agriculture.canada.ca/sites/default/files/documents/2022-07/Canadas_Country_Report_for_3rd_Rpt_on_State_of_the_World_PGRFA_EN-Final.pdf)) /

Rapport du Canada en vue du Troisième Rapport sur l'état des ressources phylogénétiques pour l'alimentation et l'agriculture dans le monde. Ottawa, Agriculture et Agroalimentaire Canada. 120 p. [https://agriculture.canada.ca/sites/default/files/documents/2022-](https://agriculture.canada.ca/sites/default/files/documents/2022-07/Rapport_du_Canada_en_vue_du_3e_Rpt_sur_l%27etat_RPGAA_FR-Final.pdf)

[07/Rapport du Canada en vue du 3e Rpt sur l'état RPGAA FR-Final.pdf](https://agriculture.canada.ca/sites/default/files/documents/2022-07/Rapport_du_Canada_en_vue_du_3e_Rpt_sur_l%27etat_RPGAA_FR-Final.pdf)).

8. Have farmers and local communities' efforts to manage and conserve PGRFA on-farm been promoted or supported in your country?

Yes

No

If your answer is 'yes', please provide details of the measures taken:

Agriculture and Agri-Food Canada collaborates with non-government organizations (NGOs) that promote on-farm conservation of PGRFA. A Memorandum of Understanding exists with one Canadian NGO and the Plant Gene Resources of Canada (PGRC) genebank. PGRC stores security back-up samples of germplasm for this NGO. PGRC has also cooperated on projects that involve another Canadian NGO and a local community in germplasm regeneration. Information and germplasm exchange with NGOs occurs on an ongoing base.

There has been additional collaboration with Seeds of Diversity Canada, in which a list of priority heirloom potato varieties has been suggested for preservation at PGRC.

For detailed information please consult:: [Canada's Country Report for the Third Report on the State of the World's Plant Genetic Resources for Food and Agriculture \(PDF 2.4MB\)](https://agriculture.canada.ca/sites/default/files/documents/2022-07/Canadas_Country_Report_for_3rd_Rpt_on_State_of_the_World_PGRFA_EN-Final.pdf)
(https://agriculture.canada.ca/sites/default/files/documents/2022-07/Canadas_Country_Report_for_3rd_Rpt_on_State_of_the_World_PGRFA_EN-Final.pdf).

9. Has *in situ* conservation of wild crop relatives and wild plants for food production been promoted in your country?

Yes

No

If your answer is 'yes', please indicate whether any measures have been taken to:

Promote *in situ* conservation in protected areas;

Support the efforts of indigenous and local communities.

If such measures have been taken, please provide details of the measures taken:

Several workshops initiated by the Department of Agriculture and Agri-Food have been conducted with participation of Canadian Indigenous people and local communities to support their efforts in developing viable economic models involving indigenous plant genetic resources. See also: [Canada's Country Report for the Third Report on the State of the World's Plant Genetic Resources for Food and Agriculture \(PDF 2.4MB\)](https://agriculture.canada.ca/sites/default/files/documents/2022-07/Canadas_Country_Report_for_3rd_Rpt_on_State_of_the_World_PGRFA_EN-Final.pdf)
(https://agriculture.canada.ca/sites/default/files/documents/2022-07/Canadas_Country_Report_for_3rd_Rpt_on_State_of_the_World_PGRFA_EN-Final.pdf).

10. Are there any *ex situ* collections of PGRFA in your country?

Yes X

No

If your answer is 'yes', please provide information on the holder and content of such collections:

See all holdings of PGRFA at the Canadian National Plant Germplasm System of Agriculture and Agri-Food Canada (<http://pgrc.agr.gc.ca/>).

11. Has the development of an efficient and sustainable system of *ex situ* conservation of PGRFA been promoted in your country?

Yes X

No

If your answer is 'yes', please indicate the measures taken to promote *ex situ* conservation, in particular any measures to promote the development and transfer of technologies for this purpose:

There has been ongoing communication with general public nationally and internationally through workshops, publications and other contacts with stakeholders. See also: [Canada's Country Report for the Third Report on the State of the World's Plant Genetic Resources for Food and Agriculture \(PDF 2.4MB\)](#) (https://agriculture.canada.ca/sites/default/files/documents/2022-07/Canadas_Country_Report_for_3rd_Rpt_on_State_of_the_World_PGRFA_EN-Final.pdf).

The Potato Gene Resources Newsletter, an annual publication from the Canadian Potato Gene Resources located at Agriculture and Agri-Food Canada's Fredericton Research and Development Centre located in New Brunswick, provides information on potato germplasm held in the collection, solicits new material, provides a forum for discussion of issues related to maintaining potato germplasm, and other issues related to the genetic diversity of potatoes. Electronic versions are available at The Government of Canada Publications site: [Potato gene resources newsletter / Published by Potato Research Centre. : A47-8E - Government of Canada Publications - Canada.ca](#)

(<https://publications.gc.ca/site/eng/9.515723/publication.html>)

12. Has the maintenance of the viability, degree of variation, and the genetic integrity of *ex situ* collections of PGRFA been monitored in your country?

Yes X

No

If your answer is 'yes', please provide details of the main conclusions of these monitoring activities:

On an ongoing basis, the quality of recent regenerations of *ex situ* germplasm is assessed and decisions regarding future regeneration needs are made at the Canadian national genebanks of the Canadian National Plant Germplasm System in accordance with FAO Genebank Standards.

13. Has your country cooperated with other Contracting Parties, through bilateral or regional channels, in the conservation, exploration, collection, characterization, evaluation or documentation of PGRFA?

Yes

No

If your answer is 'yes', please indicate the other Contracting Parties with whom the cooperation was undertaken (where additional to cooperation through the Governing Body or other Treaty mechanisms) and, where possible, details of any relevant projects:

There is close cooperation within North America. The Inter American Institute for Agriculture hosts the PROCINORTE (Cooperative Program in Agricultural Research and Technology)/NORGEN Taskforce on Genetic Resources, which is a forum for Mexico, Canada and the US to cooperate on genetic resources issues: [Genetic Resources - PROCINORTE](#)

(<https://www.procinorte.net/estrategic/genetic-resorces>)

Canada also participates in the regular meetings of the Plant Germplasm Operating Committee of the National Plant Germplasm System of United States Department of Agriculture.

Article 6: Sustainable Use of Plant Genetic Resources for Food and Agriculture

14. Are there any policy and legal measures² in place in your country that promote the sustainable use of PGRFA?

Yes

No

² For the purpose of this report, legal measures may include regulations.

If your answer is 'yes', please indicate whether such policy and legal measures include:

Pursuing fair agricultural policies that promote the development and maintenance of diverse farming systems that enhance the sustainable use of agricultural biological diversity and other natural resources;

Strengthening research that enhances and conserves biological diversity by maximizing intra- and inter-specific variation for the benefit of farmers;

Promoting plant breeding efforts, with the participation of farmers, that strengthen the capacity to develop varieties particularly adapted to social, economic and ecological conditions, including in marginal areas;

Broadening the genetic base of crops and increasing the range of genetic diversity available to farmers;

Promoting the expanded use of local and locally adapted crops, varieties and underutilised species;

Supporting the wider use of diversity of varieties and species in on-farm management, conservation and sustainable use of crops and creating strong links to plant breeding and agricultural development;

Reviewing and adjusting breeding strategies and regulations concerning variety release and seed distribution.

If such policy and legal measures are in place, please provide details of the measures taken and any difficulties encountered in implementing them:

Canada promotes the measures above but not under specific legislation for PGRFA.

Article 7: National Commitments and International Cooperation

15. Has the conservation, exploration, collection, characterization, evaluation, documentation and sustainable use of PGRFA been integrated into your country's agriculture and rural development programmes and policies?

Yes

No

If your answer is 'yes', please provide details of the integration of such activities:

Conservation

Exploration

Collection

Characterization

Evaluation

Documentation

Sustainable use

Please indicate into which type of programmes and policies: Agriculture and rural development

Food security

Biodiversity conservation

Climate change

Other Additional details:

Such activities are integral part of the AAFC Strategic Plan for Science ([Agriculture and Agri-Food Canada's Strategic Plan for Science - agriculture.canada.ca](https://www.agriculture.canada.ca)).

16. Has your country cooperated with other Contracting Parties, through bilateral or regional channels, in the conservation and sustainable use of PGRFA?

Yes

No

If your answer is 'yes', please indicate whether the aim of such cooperation is to:

Strengthen the capability of developing countries and countries with economies in transition with respect to conservation and sustainable use of PGRFA;

Enhance international activities to promote conservation, evaluation, documentation, genetic enhancement, plant breeding, seed multiplication, and sharing, providing access to and exchanging PGRFA and appropriate information and technology, in conformity with the Multilateral System of Access and Benefit-sharing under the Treaty.

If, in addition to cooperation through the Governing Body or other Treaty mechanisms, your country has cooperated with other Contracting Parties directly or through FAO and other relevant international organizations, please indicate such other Contracting Parties and, where possible, details of any relevant projects:

Internationally, Canada supports our developing country partners in this objective through initiatives such as:

- Canada is a member of the CGIAR System Council and thereby cooperates on the conservation and sustainable use of PGRFA with other Contracting Parties which are also members of the System Council. This cooperation is done through the support of CGIAR's Portfolio of Research, which includes the CGIAR Research Initiative on Genebanks that contributes to the conservation and sustainable use of PGRFA. Canada's current institutional support to CGIAR's Portfolio of Research is CAN 55 million over 2022-2024.

- Canada provided CAN 10 million from 2003-2013 for the initial operational resources to establish the Global Crop Biodiversity Trust and to leverage funds from other donors.
- PABRA: Canada contributed CAN 15 million (2009-2015) to the Pan-Africa Bean Research Alliance which work towards supporting improved nutrition, health, gender equality and food security in several African countries through the development and dissemination of bean varieties that are resistant to drought, disease and pests. Since 1996, [PABRA has released over 550 new bean varieties.](#)
- The Canadian International Food Security Research Fund (CIFSRF) has been a CAD 124.5 million research for development program implemented by the International Development Research Centre (IDRC) and Global Affairs Canada (GAC) since 2009. CIFSRF has contributed to the development of more productive, sustainable, and gender-sensitive agricultural techniques for women subsistence farmers, with the ultimate goal of making food sources more secure and accessible, and the food produced more nutritious, for poor households – particularly for women and girls, who face the heaviest burden of chronic hunger and malnutrition in developing countries. CIFSRF has contributed directly to capacity building on PGRFA including the sustainable production and utilization of underutilized vegetables to enhance rural food security in Nigeria (to assess 18 varieties of indigenous vegetables harvested in the wild and commonly consumed in southwest Nigeria to determine their production potential, nutritional content, drought tolerance and disease resistance). It has also supported the synergistic use of fertilizer micro-dosing and indigenous vegetable production to enhance food and economic security of West African farmers (to promote innovation in field production practices including fertilizer micro dosing and optimum water management, to innovation in food processing and value addition).
- Canada provided CAD 8.2 million (2012-2020) to promote regional opportunities for produce through enterprise and linkages (PROPEL). Canada’s contribution supported economic growth in the Caribbean through increased sales of fresh produce by small-scale local farmers to high value markets. The project helped small farmers in Jamaica, Trinidad and Tobago, St. Lucia, Grenada, St. Vincent and the Grenadines, Dominica, Barbados and Guyana to increase the quality and quantity of fresh, regionally grown fruits and vegetables, linking them to buyers such as regional grocery chains, cruise lines, airlines, hotels and restaurants.
- Canada contributed CAD 14.9 million (2015-2020) to scale up the CSO – USC Canada’s “Seeds of Survival” program in Central America and Africa. USC (now SeedChange) works with smallholder farmers (women, men and youth) in Africa, South and Central America, Asia and Canada, to strengthen their knowledge and their food and seed systems through participatory plant breeding, community seed banks and agroecological practices. This project reached an estimated 293 communities and over 44,000 beneficiaries, improving their food security and climate resilience, with particularly strong results in Ethiopia and Honduras.

Article 8: Technical Assistance

17. Has your country promoted the provision of technical assistance to developing countries and countries with economies in transition, with the objective of facilitating the implementation of the Treaty?

Yes

No

If your answer is 'yes', please provide details of the measures taken:

Exchange of information

Access to and transfer of technology

Capacity building

Please explain

Through Canada's current institutional funding to CGIAR's Portfolio of Research of CA 55 million over 2022-2024, Canada is supporting CGIAR's technical assistance to numerous developing countries and countries with economies in transition. Key CGIAR activities aligned with the objective of Treaty implementation include the provision of training events, workshops and support to National Agricultural Research and Extension Services (NARES).

Human resources development is also provided through training in plant genetics/breeding at Canadian universities of graduate and undergraduate students as well as Postdoctoral Fellows from developing countries and countries with economies in transition.

18. Has your country received technical assistance with the objective of facilitating the implementation of the Treaty?

Yes

No

Not applicable

If your answer is 'yes', please provide details of such technical assistance: Exchange of information

Access to and transfer of technology

Capacity building

Please explain:

If your answer is 'yes', please provide details of such technical assistance:

Article 9: Farmers' Rights

19. Subject to national law, as appropriate, have any measures been taken to protect and promote farmers rights in your country?

Yes

No

If your answer is 'yes', please indicate whether such measures were related to:

X Recognition of the enormous contribution that local and indigenous communities and farmers of all regions of the world have made and will continue to make for the conservation and development of plant genetic resources;

X The protection of traditional knowledge relevant to PGRFA;

X The right to equitably participate in sharing benefits arising from the utilisation of PGRFA;

X The right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of PGRFA;

X Any rights that farmers have to save, use, exchange, and sell farm-saved seed / propagating material.

If such measures were taken, please provide details of the measures taken and any difficulties encountered in implementing them:

(Numbers in brackets refer to Articles of the ITPGRFA)

(9.1) Recognition of the enormous contribution that local and indigenous communities and farmers of all regions of the world have made and will continue to make for the conservation and development of plant genetic resources

Internationally, Canada actively acknowledges the contributions of Indigenous communities and farmers from all regions in the conservation and development of Plant Genetic Resources for Food and Agriculture (PGRFA). Through its involvement in various international agreements, collaborations, and commitments, Canada demonstrates its understanding of the important role that sustainable agricultural practices play in maintaining biodiversity and ensuring global food security. Key international agreements and collaborations that Canada supports include:

- The International Treaty on Plant Genetic Resources for Food and Agriculture
- The Convention on Biological Diversity
- The United Nations Declaration on the Rights of Indigenous Peoples
- Partnerships with global research institutions like the Consultative Group on International Agricultural Research (CGIAR)

By actively participating in these treaties, declarations, financial contributions, and partnering with global institutions, Canada underscores the indispensable role of Indigenous communities and farmers in safeguarding PGRFA. These efforts reflect Canada's dedication to promoting sustainable agriculture and biodiversity conservation on a global scale.

Domestically, Canada acknowledges Indigenous rights to land and resources through the Constitution ([Section 35 of the Constitution Act, 1982](#)) and [treaties and agreements](#) many of which emphasize the importance of traditional knowledge and stewardship in conservation. These agreements enable Indigenous communities to maintain sovereignty over their traditional lands and the biodiversity within them.

An example of an initiative in this effort is the [Indigenous-led Conservation Support Funding](#), announced in 2021 with a CAD 340 million investment over five years. This funding aims to empower Indigenous communities by supporting their leadership in nature conservation, protecting ecosystems, fostering sustainable economies, and preserving the deep connections between natural landscapes and Indigenous cultures.

In addition to supporting local and Indigenous communities conservation and sustainable use efforts, Canada also provides extensive support to farmers and agricultural businesses through the **Sustainable Canadian Agricultural Partnership (Sustainable CAP)**. This is a CAD 3.5 billion, five-year agreement (April 1, 2023, to March 31, 2028) between the federal, provincial, and territorial governments aimed at strengthening the competitiveness, innovation, and resilience of the agriculture and agri-food sectors. A key component of Sustainable CAP is the [Resilient Agriculture Landscape Program](#), a CAD 250 million designed to help farmers conserve and enhance the resiliency of agricultural landscapes.

Canada demonstrates a strong and comprehensive commitment to the conservation and development of PGRFA both internationally and domestically. These efforts collectively strengthen Canada's role in preserving biodiversity, promoting food security, and fostering resilient agricultural landscapes for future generations.

(9.2 a)) The protection of traditional knowledge relevant to PGRFA

Canada's protection of Traditional Knowledge (TK) related to PGRFA is complex and evolving. In Canada, TK, in this context, refers to the innovations, practices, and cultural insights that local and Indigenous communities have developed over generations, linked to biodiversity and agricultural systems. Canada protects TK through international commitments, domestic legislation, and ongoing policy development.

Internationally, Canada participates in several international agreements and frameworks that, while not solely focused on PGRFA, play a significant role in protecting TK. One of the most influential agreements is the [Convention on Biological Diversity \(CBD\)](#), which obligates signatories to respect and protect TK and ensure that benefits arising from the use of genetic resources are shared equitably. While not specific to agriculture, the CBD's broad focus on biodiversity supports the safeguarding of TK related to PGRFA.

The [Nagoya Protocol](#), an extension of the CBD, further establishes rules for **Access and Benefit Sharing** concerning genetic resources and associated TK. Although Canada has not ratified the Nagoya Protocol, its principles guide Canadian policies on respecting TK and ensuring that Indigenous communities benefit when their knowledge or resources are utilized. Moreover, the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#) provides a comprehensive framework for protecting Indigenous rights, including TK relevant to PGRFA. On June 21, 2021, the *United Nations Declaration on the Rights of Indigenous Peoples Act* received Royal Assent in Canada's Parliament and immediately came into force. This has since shaped Canada's approach to Indigenous rights, including those related to TK and biodiversity.

Domestically, Canada has several laws that contribute to the protection of TK, especially in the context of biodiversity and environmental management. The [Species at Risk Act](#) incorporates Indigenous knowledge into decision-making processes for the conservation of species, which indirectly supports the protection of TK related to plant biodiversity. Similarly, the [Canadian Environmental Protection Act](#) recognizes the importance of Indigenous participation and the role of their knowledge in environmental governance, reinforcing the protection of agricultural and ecological TK.

Furthermore, the passage of the [UNDRIP Act](#) in June 2021 represents a major step forward in Canada's commitment to Indigenous Peoples' rights. This legislation mandates the federal government to ensure Canadian laws are consistent with UNDRIP, requiring the development

of action plans that recognize and respect Indigenous Peoples' rights, including those related to traditional agricultural practices and knowledge systems. This development marks a clear shift toward greater protection of TK related to PGRFA under Canadian law.

The [Truth and Reconciliation Commission of Canada \(TRC\)](#) has also played a crucial role in shaping Canada's approach to Indigenous TK. The TRC's [Calls to Action](#) emphasize the importance of incorporating Indigenous perspectives into regulatory and policy development, especially in areas affecting biodiversity, agriculture, and resource management. This has led to increased consideration of Indigenous people and local communities in decision-making processes, particularly when it comes to environmental protection and cultural preservation.

While Canada has made progress in recognizing TK through international commitments, domestic legislation, and ongoing policy development, ongoing dialogue continues. Canada remains committed to building on international commitments and refining domestic legislation to gradually strengthen its protection of TK, with particular attention to the role that TK plays in sustaining agricultural diversity and food security.

(9.2 b)) The right to equitably participate in sharing benefits arising from the utilization of PGRFA

In Canada, benefits arising from the utilization of Plant Genetic Resources for Food and Agriculture (PGRFA) encompass a broad range of monetary and non-monetary benefits. These benefits play an important role in food security, agricultural sustainability, and the development of resilient farming systems. Some of these benefits include:

Improved crop varieties

Breeding programs utilize diverse PGRFA and play an important role in improving and developing new varieties of cultivated plants. These programs produce crop varieties with higher yields, directly benefiting farmers by ensuring productivity and increasing income. In addition to improved yields, use of PGRFA enable the development of crops with enhanced nutritional value, such as higher levels of vitamins, minerals, or proteins, which contribute to better health for consumers. Moreover, the utilization of PGRFA is important for breeding crops with improved resistance to diseases and pests, reducing the need for chemical inputs and promoting more sustainable, resilient agricultural practices. In addition, breeding introduces new crops to Canadian agriculture, enhancing biodiversity as well as the ecological and economic resilience of the sector.

Increased resilience to climate change

Breeding programs that utilize PGRFA are vital for developing crops that can thrive under extreme weather conditions, such as droughts, floods, and temperature extremes, thus enabling farmers to adapt to changing climates. This genetic diversity is also essential for creating crops that can resist abiotic stresses like soil salinity and waterlogging, fostering greater agricultural sustainability in the face of environmental challenges.

Access to new markets

Access to new markets have been achieved through the diversification of crops by utilizing a broader range of plant genetic resources. This allows farmers to grow new or niche crops that align with market demand for diverse products, creating added income opportunities. In the future, the conservation and use of traditional and Indigenous PGRFA can open up markets for heritage foods, supporting the preservation of cultural values while delivering economic benefits to local communities.

(9.2 c)) The right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of PGRFA

In Canada, the right of farmers to participate in decision-making on matters related to the conservation and sustainable use of PGRFA is encouraged and facilitated through a combination of consultation mechanisms, advisory committees, research partnerships, and collaborative policy development. These avenues provide farmers with a role in shaping agricultural and environmental policies that affect PGRFA.

Consultative Processes in Policy Development

Canada engages stakeholders, including farmers, through public consultations and stakeholder engagement processes during policy development, regulatory amendments, and legislative changes.

Advisory Committees and Working Groups

Canada utilizes various advisory committees and working groups where farmers are represented, allowing them to participate in the decision-making process on agricultural biodiversity and the use of PGRFA.

Participatory Research and Farmer-Led Initiatives

Farmers in Canada have a strong presence in participatory research and community-led initiatives related to the conservation and sustainable use of PGRFA. These initiatives often involve close collaboration with government agencies, universities, and research organizations, giving farmers a voice in shaping research priorities and outcomes.

Collaboration with Indigenous and Local Communities

Indigenous and local communities, including smallholder farmers, are often directly involved in PGRFA conservation efforts. In recent years, Canada has made efforts to ensure that Indigenous peoples and local communities have a role in decision-making processes regarding the conservation of biodiversity, which includes PGRFA.

Farmer Organizations and Advocacy Groups

Farmer organizations and advocacy groups in Canada play a crucial role in representing farmers' interests in national decision-making processes related to PGRFA. Some of these organizations include Canadian Federation of Agriculture, the Fruit and Vegetable Growers of Canada, the Canadian Seed Growers' Association, the Canadian Organic Growers, and the National Farmers Union

Canada provides several avenues for farmers to participate in decision-making at the national level on matters related to the conservation and sustainable use of PGRFA. These include consultations, advisory committees, participatory research, and farmer organizations. However, while participation is encouraged, it often occurs through informal or indirect means, and there remains room for improvement in ensuring that the voices of all farmers, especially local and Indigenous communities, are fully integrated into decision-making at the national level, on matters related to the conservation and sustainable use of PGRFA.

(9.3) Any rights that farmers have to save, use, exchange, and sell farm-saved seed / propagating material

In Canada, while farmers have the ability to save, use, exchange, and sell farm-saved seed and propagating material, this is not considered an unrestricted right without limitations. Instead, it is subject to national laws, international agreements, and regulatory frameworks. However, dependent on crop type, these restrictions often apply to only a small portion of the seeds and propagating materials available in the marketplace. Additionally, these limitations are carefully targeted, with clear and transparent objectives designed to balance the interests of farmers, the industry, and consumers as a whole. Additionally, farmers often play a key role in supporting these restrictions in order to achieve beneficial public policy goals (e.g. high-quality seed, access to innovation, and access to disease free propagating material.)

An example of how national legislation limits the ability of a farmer to save, use, exchange, and sell farm-saved seed and propagating material is the Canadian [Seeds Act](#). The act exists to regulate the quality, safety, and trade of seeds in the country. The act plays a crucial role in maintaining the integrity of the agricultural system and ensuring that seeds sold and used meet certain standards. In essence, the *Seeds Act* is vital for maintaining the foundation of Canada's agricultural sector, ensuring seed quality, protecting plant health, and supporting economic growth and sustainability in farming.

Another example is Canada's [Plant Breeders' Rights Act](#) which balances protecting plant breeders' rights while safeguarding farmers' ability to save, use, exchange, and sell farm-saved seed under specific conditions. While the *Plant Breeders' Rights Act* only applies to a small minority of varieties in the marketplace, the act provides a legal framework for plant breeders to recoup their investment, while incorporating key exemptions that support farmers. These exemptions enable practices, such as promoting the local adaptation of seed varieties. Provisions like the Breeders' Exemption, the Private and Non-commercial Use Exemption, and the Experimental Purposes Exemption ensure that seed-saving practices can continue in certain contexts, fostering both innovation and agricultural diversity. In the end, the Canadian agricultural system thrives on diversity and choice, allowing farmers to grow both PBR protected or publicly available varieties. The PBR framework plays a crucial role in supporting a resilient and sustainable agricultural system that benefits everyone.

In conclusion, while farmers in Canada have the ability to save, use, exchange, and sell farm-saved seed under certain circumstances, this ability is governed by national laws and regulations such as the **Seeds Act** and **Plant Breeders' Rights Act**. These laws maintain seed quality, protect plant health, and promote innovation while ensuring that farmers can continue important practices like seed saving under certain conditions. By balancing the interests of farmers, plant breeders, and the industry, Canada's regulatory framework supports a diverse and sustainable agricultural system that benefits the entire sector and the consumer.

Article 11: Coverage of the Multilateral System

20. Has your country included in the Multilateral System of Access and Benefit-Sharing (MLS) all PGRFA listed in Annex I to the Treaty that are under the management and control of your Government and in the public domain?

All

Partially

None

If your answer is 'all', please provide details of any difficulties encountered in including Annex I PGRFA in the MLS:

No difficulties. Canada uses the SMTA for all shipments of PGRFA from its national collections to genebank clients nationally and internationally.

The holdings of the three Canadian national genebanks amount to more than 120,000 accessions covering close to 1000 botanical species of PGRFA, including cultivated species and crop wild relatives of cereals, pulses, oilseeds, forages and many other crops. About 70% of the germplasm holdings are cereals and wild relatives of barley, oat and wheat. An online database can be used to examine all germplasm holdings and make requests to the three

genebanks for samples ([Search accessions - GRIN-Global-CA - Agriculture and Agri-Food Canada \(AAFC\)](#)). From 2002 to 2023, PGRC distributed more than 150,000 seed samples for research, breeding, and education to requesters in 71 countries. About 83% of the seed samples were shipped to Canadian clients. This illustrates that there is a considerable need and interest for PGRC genetic resources both in Canada and around the world.

The Potato Gene Resources Newsletter, an annual publication from the Canadian Potato Gene Resources at Agriculture and Agri-Food Canada's Fredericton Research and Development Centre located in New Brunswick, provides information on potato germplasms held in the collection, solicits new material and provides a forum for discussion of issues related to maintaining potato germplasm, and issues related to the genetic diversity of potatoes.

Electronic versions are available at The Government of Canada Publications site: [Potato gene resources newsletter / Published by Potato Research Centre. : A47-8E - Government of Canada Publications - Canada.ca](#)

(<https://publications.gc.ca/site/eng/9.515723/publication.html>)

If your answer is 'partially', please provide details of:

- The extent to which Annex I PGRFA have been included in the MLS;
- The crops that have been included in the MLS; and
- The difficulties encountered in including Annex I PGRFA in the MLS:

If your answer is 'none', please provide details of the difficulties encountered in including Annex I PGRFA in the MLS:

Lack of guidelines for the identification and inclusion of material;

There is no national genebank;

Lack of catalogue of PGRFA in the country

Lack of specialised human resources;

Limited economic resources and the need for capacity building;

Other, please explain

21. Has your country taken measures to encourage natural and legal persons within your jurisdiction who hold Annex I PGRFA to include those resources in the MLS?

Yes X

No

If your answer is 'yes', please provide details of:

- The natural or legal persons within your jurisdiction that included Annex I PGRFA in the MLS;
- The crops that have been included in the MLS by these persons; and
- Any difficulties these persons encountered in including Annex I PGRFA in the MLS:

Incorporation of deregistered cultivars in the Canadian National Plant Germplasm System maintained by Agriculture and Agri-Food Canada is encouraged on a voluntary basis.

If your answer is 'no' please provide details, in particular details of any difficulties encountered in encouraging these persons to include Annex I PGRFA in the MLS:

Article 12: Facilitated access to plant genetic resources for food and agriculture within the Multilateral System

22. Has your country taken measures to provide facilitated access to Annex I PGRFA, in accordance with the conditions set out in Article 12.4 of the Treaty?

Yes

No

If your answer is 'yes', please provide details of such measures:

Canada uses the SMTA for all shipments of PGRFA from its national collections to genebank clients nationally and internationally. This includes 128,233 accessions provided from 2008 to 2023 by PGRC to clients in 63 countries. This was done under 1598 SMTAs with clients in 63 countries including Canada.

If your answer is 'no', please provide details of any difficulties encountered in providing facilitated access to Annex I PGRFA:

23. Has facilitated access been provided in your country to Annex I PGRFA pursuant to the standard material transfer agreement (SMTA)?

Yes

No

If your answer is 'yes', please provide the number of SMTAs entered into:

The genebanks of the Canadian National Plant Germplasm System as provider enter about 100 SMTAs annually.

If your answer is 'no', please provide details of any difficulties encountered in providing facilitated access to Annex I PGRFA pursuant to the SMTA:

24. Has the SMTA been used voluntarily in your country to provide access to non-Annex I PGRFA?

Yes

No

If your answer is 'yes', please indicate the number of such SMTAs entered into:

Included in number above.

25. Does the legal system of your country provide an opportunity for parties to material transfer agreements (MTAs) to seek recourse in case of contractual disputes arising under such agreements?

Yes

No

If your answer is 'yes', please provide details of the relevant laws, regulations or procedures:

Any valid contract, including valid MTAs, is legally binding in Canada and the court system respects them.

26. Does the legal system of your country provide for the enforcement of arbitral decisions related to disputes arising under the SMTA?

Yes

No

If your answer is 'yes', please provide details of the relevant laws, regulations or procedures:

Canada is a contracting state to the New York Convention, or one can apply to the relevant Superior Court of Justice within Canada for enforcement.

27. Have there been any emergency disaster situations in respect of which your country has provided facilitated access to Annex I PGRFA for the purpose of contributing to the re-establishment of agricultural systems?

Yes

No

If your answer is 'yes', please provide details of such emergency disaster situations and the Annex I PGRFA to which access was provided:

Article 13: Benefit-sharing in the Multilateral System

28. Has your country made any information available regarding Annex I PGRFA?

Yes

No

If your answer is 'yes', please provide details of any information made available regarding Annex I PGRFA (e.g. catalogues and inventories, information on technologies, results of scientific and socio-economic research, including characterisation, evaluation and utilisation):

The Canadian National Plant Germplasm System provides all information using the GRIN-Global-CA genebank information system, hosted at the Plant Gene Resources of Canada, which provides information on passport, characterization and evaluation data on its website using the GRIN-Global CA genebank information system (<https://pgrc-rpc.agr.gc.ca/gringlobal/landing>).

29. Has your country provided or facilitated access to technologies for the conservation, characterisation, evaluation and use of Annex I PGRFA?

Yes

No

If your answer is 'yes', please indicate whether your country:

X Has established or participated in crop-based thematic groups on utilisation of PGRFA;

X Is aware of any partnerships in your country in research and development and in commercial joint ventures relating to the material received through the MLS, human resource development and effective access to research facilities.

If access to technologies was provided, please provide details of the access provided:

Various collaborations and training initiatives occur in Canada at Universities and at governmental research facilities.

30. Has your country provided for and/or benefitted from capacity building measures in respect of Annex I PGRFA?³

Yes

No

If your answer is 'yes', please indicate whether such measures were related to:

X Establishing and/or strengthening programmes for scientific and technical education and training in conservation and sustainable use of PGRFA;

X Developing and strengthening facilities for conservation and sustainable use of PGRFA;

X Carrying out scientific research and developing capacity for such research.

If your country provided for and/or benefitted from such measures, please provide details:

Canada participated/organized several training sessions for GRIN-Global, the genebank information system that will be implemented at PGRC.

<https://www.grin-global.org/>

Article 14: Global Plan of Action

³ Please note that this question differs from question 15 as it only concerns Annex I PGRFA and is more specific.

31. Has your country promoted the implementation of the Global Plan of Action for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture?

Yes

No

If your answer is 'yes', please indicate whether the implementation of the plan was promoted through:

X National actions;

X International cooperation;

Other actions

If the implementation of the plan was promoted, please provide details:

There has been engagement with national and international stakeholders in plant genetic resources for agriculture related activities.

AAFC has signed an MOU with the International Potato Center ([dating from 1997](#)).
[International Potato Center \(cipotato.org\)](http://cipotato.org)

Article 15: Ex Situ Collections of Plant Genetic Resources for Food and Agriculture held by the International Agricultural Research Centres of the Consultative Group on International Agricultural Research and other International Institutions

32. Has facilitated access to Annex I PGRFA been provided in your country to the International Agricultural Research Centres of the Consultative Group on International Agricultural Research (IARCs) or other international institutions that have signed agreements with the Governing Body of the Treaty?

Yes

No

If your answer is 'yes', please indicate:

- To which IARCs or other international institutions facilitated access was provided;
- The number of SMTAs entered into with each IARC or other international institution:

The SMTA was implemented by PGRC in July 2008. Since then, the SMTAs with IARCs were the following:

2015 World Agroforestry Centre (Kenya): one SMTA

2014: ICARDA (Morocco): one SMTA

2016: ICRISAT (India): one SMTA

2013: ICRISAT (India): one SMTA

2012: CYMMIT (Mexico): one SMTA

Beyond that, Plant gene Resources of Canada has sent material to more than 70 countries worldwide since 2002.

If your answer is 'no', please provide details of any difficulties encountered in providing facilitated access to Annex I PGRFA to IARCs and other international institutions that have signed agreements with the Governing Body of the Treaty:

Sending material to some countries requires a lot of paperwork. There have been circumstances of shipments being confiscated or returned to PGRC despite having met all import requirements for sending seed material to the country.

33. Has access to non-Annex I PGRFA been provided in your country to IARCs or other international institutions that have signed agreements with the Governing Body of the Treaty?

Yes

No

X

If your answer is 'yes', please indicate:

- To which IARCs or other international institutions access was provided;
- The number of MTAs entered into with each IARC or other international institution:

If your answer is 'no', please provide details of any difficulties encountered in providing access to non-Annex I PGRFA to IARCs and other international institutions that have signed agreements with the Governing Body of the Treaty:

unknown

Article 16: International Plant Genetic Resources Networks

34. Has your country undertaken any activities to encourage government, private, non-governmental, research, breeding and other institutions to participate in the international plant genetic resources networks?

Yes

X

No

If your answer is 'yes', please provide details of such activities:

Canada engages actively in international plant genetic resources networks.

Canada's current institutional support to CGIAR's Portfolio of Research is CAD 55 million over 2022-2024. A portion of this contribution directly advances the implementation of the Treaty. As approved in April 2024 by System Council, CGIAR's total pooled budget (excluding designations to specific Research Initiatives and bilateral contributions to Research Centres) is US 383 million. An amount of USD 83.6 million is allocated to the "Genetic Innovation" group of Research Initiatives (e.g. Breeding and Genebanks).

Regional cooperation in the Americas was enhanced in 1998 with the Cooperative Program in Research and Technology for the Northern Region (PROCINORTE: <https://www.procinorte.net/estrategic/genetic-resorces/>) of the Inter-American Institute for Cooperation on Agriculture (IICA). It is a trilateral network of federal agricultural, agri-food and food system research bodies in Canada, Mexico, and the USA. It aims to promote cooperation in research and technology in the Northern Region of the Americas through exchanges and partnerships for competitive and sustainable agricultural development by incorporating science, technology, innovation, and knowledge-sharing in areas of trilateral relevance. This program is under the auspices of IICA which acts as Executive Secretariat.

Agriculture and Agri-Food Canada, the USDA Agricultural Research Service, and the Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias participate in the PROCINORTE Task Force on Genetic Resources for Food and Agriculture (NORGEN). NORGEN has the following objectives:

- (1) encourage the communication and collaboration among personnel involved in National Genetic Resource Systems,
- (2) identify and address training and educational needs,
- (3) integrate with other genetic resources networks in the Americas and around the world,
- (4) develop projects of interest to the three countries,
- (5) encourage reciprocal participation of national experts in each country's operational and advisory genetic resources committees,
- (6) establish contact with other task forces of PROCINORTE, and
- (7) support the development of an Integrated Genetic Resources System in Mexico.

Article 18: Financial Resources

35. Has your country provided and/or received financial resources for the implementation of the Treaty through bilateral, regional or multilateral channels?

Yes

No X

If your answer is 'yes', , where possible, please provide details of such channels and the amount of the financial resources involved:

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36. Has your country provided financial resources for national activities for the conservation and sustainable use of PGRFA?

Yes

No

If your answer is 'yes', please provide details of such national activities and the amount of the financial resources involved:

<p>Each year Canada allocates approximately CAD 2 million to operate the national genebank system (CAD 1.3 million on operational costs including salaries and CAD 0.7 million on fixed costs).</p>

37. Has your country received financial resources for the implementation of the International Treaty?

Yes

No:

If your answer is 'yes', where possible, please provide details of such channels and the amount of the financial resources involved during the last 5 years:

Total amount:

Channel:

Bilateral

Regional

Multilateral

Please provide details:

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General remarks on the implementation of the ITPGRFA

38. You may use this box to share any advice you may have arising from your country's experience with implementation of the Treaty:

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39. You may use this box to share any additional information that may be useful to provide a broader perspective of difficulties in implementation of the Treaty:

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40. You may use this box to share any additional information that may be useful to provide a broader perspective of measures that could help to promote compliance:

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--- Question to be administered separately ---]

About this reporting

41. Have you encountered any difficulties in completing this reporting format?

Yes

No

If your answer is 'yes', please provide details on such difficulties:

If you have suggestions for improvement of this reporting format, please share them:
