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Discussion Document for the Further Development of Federal Access and Benefit Sharing Policy

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Introduction

This document outlines a proposed draft domestic policy on access and benefit sharing for genetic resources and for traditional knowledge associated with genetic resources, with a focus on federal roles and responsibilities. The proposed policy reflects many of the elements of the *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity* (Nagoya Protocol) but is not a comprehensive plan to implement the Protocol in Canada. Rather, this document has been produced as a draft for discussion with the aim of advancing the dialogue in Canada on the further development of domestic access and benefit sharing policy and to contribute to an increased understanding of the potential implications of the Nagoya Protocol for Canada.

Background

The United Nations Convention on Biological Diversity (CBD) has three main objectives:

1. The conservation of biological diversity,
2. The sustainable use of its components and
3. The fair and equitable sharing of the benefits arising out of the utilization of genetic resources.

Article 1, CBD

The Nagoya Protocol, which addresses the third objective of the Convention, was adopted by the Conference of the Parties to the CBD by consensus in October, 2010. The objective of the Nagoya Protocol is:

The fair and equitable sharing of benefits arising from the utilization of genetic resources¹ including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding, thereby contributing to the conservation of biological diversity and the sustainable use of its components.

Article 1²

Under the Protocol, the fair and equitable sharing of benefits is implemented through measures to provide prior informed consent, when required by the Party³ holding rights over the genetic resources, and the establishment of mutually agreed terms between users and providers of genetic resources. There are several key elements of the Protocol:

¹ Genetic resources are defined as material of animal, plant, microbial or other origin that contain functional units of heredity and are of actual or potential value. (Article 2, CBD) "Utilization of genetic resources" means to conduct research and development on the genetic and/or biochemical composition of genetic resources, including through biotechnology as defined in Article 2 of the CBD

² Unless noted otherwise, in this proposal "Articles" refer to Articles of the Nagoya Protocol.

³ "Party" is used in this document to refer to countries that have ratified, acceded to, or accepted the Nagoya Protocol, once in force.

1. Access provisions. These affirm that Parties have the right to require users to obtain prior informed consent for access to genetic resources and to establish mutually agreed terms. However, there is no requirement to put in place measures regarding prior informed consent in all regions of a country or for all genetic resources. Parties must also aim to ensure that the prior informed consent or approval and involvement of indigenous and local communities for access to genetic resources located on lands to which these communities have the established right to grant access is obtained.
2. User compliance provisions. These require each Party to take measures to provide that genetic resources utilized within its jurisdiction are accessed in accordance with the requirements regarding the granting of prior informed consent and the establishment of mutually agreed terms of the Party from which the genetic resources was accessed.
3. Traditional Knowledge. These require each Party to take measures with the aim of ensuring that traditional knowledge associated with genetic resources is accessed with the prior informed consent or approval and involvement of the indigenous and local community holding the knowledge. The Protocol also requires Parties to take measures to provide that traditional knowledge associated with genetic resources utilized within their jurisdiction is accessed in accordance with the requirements regarding the granting of prior informed consent or approval and involvement of indigenous and local communities and the establishment of mutually agreed terms of the Party from which the traditional knowledge associated with genetic resources was accessed.

In addition, the Protocol contains provisions related to monitoring and reporting the use of genetic resources, the establishment of Competent National Authorities, who would be responsible for granting access or issuing written evidence that prior informed consent has been granted and mutually agreed terms established, as well as the establishment of a National Focal Point, who would be responsible for disseminating information on rules and procedures related to access and benefit sharing in Canada.

Ninety-two Parties to the CBD including, Australia, the European Union, Japan, Norway and Switzerland have signed⁴ the Protocol. The Protocol will enter into force ninety days after the 50th instrument of ratification, acceptance, approval or accession has been deposited. As of September 29th, 2013, 25 countries had ratified, acceded to or accepted the Nagoya Protocol. Canada is a Party to the CBD but elected not to sign the Nagoya Protocol during the signature window. Canada has the option to accede⁵ to the Protocol at a later date if it so chooses.

Scope of the Document

In Canada, numerous entities have the authority to require prior informed consent for or to approve and be involved in decisions regarding access to genetic resources. This proposal suggests that, with respect to access to genetic resources in Canada, the federal government focus its attention on federal genetic

⁴ Signature expresses the willingness of the signatory state to continue the treaty-making process and commits the state to refrain, in good faith, from acts that would defeat the object and the purpose of the treaty.

⁵ Accession has the same legal effect as ratification, and would bind Canada to the provisions of the Protocol. It is the procedure undertaken for becoming bound by the Protocol for countries that are not signatories to the Protocol.

resources⁶, which include genetic resources which the federal government would have a role to play in establishing access and benefit sharing procedures. This document also describes a proposed federal role in implementing the access provisions of the Protocol on Aboriginal land⁷ and in developing access provisions for genetic resources on public lands and water bodies in the Territories.

The proposed federal policy outlined in this document also provides a model to help other Canadian jurisdictions, Aboriginal communities and private entities to develop their own approach to access and benefit sharing. It does not address access to genetic resources which are under the management and control of other jurisdictions or private entities in Canada. However, the federal government will continue to coordinate discussions with provincial and territorial governments, work with Aboriginal communities, and engage key stakeholders on the further development of national access and benefit sharing policy.

To address the utilization of genetic resources accessed in other countries, the proposal recommends the use of existing federal legislation to ensure that genetic resources from wild plants and animals that were possessed, transported or distributed in contravention of a foreign state law are not imported into Canada and therefore cannot be used in Canada. This will be coupled with a policy approach to provide that illegally accessed genetic resources from domesticated and cultivated plants and animals and micro-organisms are not used in Canada. This federal approach would create a level playing field for users across the country and help ensure Canada would be compliant with the Nagoya Protocol should Canada choose to accede to the Protocol.

Finally, the proposal addresses the federal role related to traditional knowledge associated with genetic resources, and the establishment of a national focal point and the designation of competent national authorities as envisioned by the Nagoya Protocol.

Access to Federal Genetic Resources

The Nagoya Protocol does not require Parties to put in place measures to require those accessing genetic resources to obtain prior informed consent and to establish mutually agreed terms for the use of genetic resources. Rather the Nagoya Protocol affirms that Parties⁸ have the option to establish these

⁶ The Protocol provides that where a specialized international access and benefit-sharing instrument applies that is consistent with, and does not run counter to the objectives of the Convention and the Protocol, the Protocol does not apply for the Party or Parties to the specialized instrument in respect of the specific genetic resource covered by and for the purpose of the specialized instrument (Article 4.4). Canada has ratified one such instrument, the International Treaty on Plant Genetic Resources for Food and Agriculture. Additionally, The World Health Organization's *Pandemic Influenza Preparedness Framework for the sharing of influenza viruses and access to vaccines and other benefits*, is applicable to the sharing of H5N1 and other influenza viruses with human pandemic potential. Canada supported the adoption of this framework at the 2011 World Health Assembly.

⁷ This document uses the term "Aboriginal land" to refer to federal reserves under the *Indian Act* or the *First Nations Land Management Act* or other agreements as well as land covered under federal land claims agreements and self-government agreements.

⁸ "Party" is used in this document to refer to countries that have ratified, approved, acceded to, or accepted the Nagoya Protocol, once in force.

requirements for genetic resources on some or all of their land and in water bodies and for some or all types of genetic resources.

Under Article 6.3 of the Protocol, where a Party requires prior informed consent it must put in place a number of measures, including:

- Providing for the issuance at the time of access of a permit or equivalent that will serve as written evidence that prior informed consent has been granted and mutually agreed terms have been established.
- Establishing clear rules and procedures for requiring and establishing mutually agreed terms. Such terms shall be in writing and may include, inter alia, terms on benefit sharing.
- Providing for legal certainty, clarity and transparency of the domestic access and benefit-sharing legislation or regulatory requirements, and providing for fair and non-arbitrary rules and procedures for accessing genetic resources.

Federal genetic resources are genetic resources for which the federal government would have a role to play in establishing access and benefit sharing procedures. They include genetic resources that are solely under the administration and control of the federal government, genetic resources where the federal crown has legislative authority but no ownership, and genetic resources where the federal government shares ownership or jurisdiction over the resources in some way. The degree to which the federal government would play a role in the establishment of access and benefit sharing provisions for these genetic resources will vary with the extent of its authority to provide access and/ or share in the benefits from the utilization of the those resources.

For federal genetic resources where the federal government is the sole entity with authority to provide access to and to share in the benefits from the utilization of the genetic resources, for example for genetic resources in marine fisheries, national parks, and national wildlife areas, the policy that follows is proposed.⁹ Where the federal government shares authority to grant access to or share in the benefits from the utilization of genetic resources, it is envisioned that the relevant federal agency would endeavour to develop an access and benefit sharing approach that is mutually agreeable with the relevant partner or partners and that the policy proposals in this document will form the basis for those discussions.

Under the CBD, access to genetic resources is generally discussed under two conditions, *in situ* and *ex situ*. The CBD defines *in situ* conditions as the conditions where genetic resources exist within ecosystems and natural habitats, and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties (Article 2, CBD). *Ex situ* genetic resources refer to components of biological diversity which are outside their natural habitats (e.g. in a collection or in culture). Each of these cases must be considered separately.

⁹ The further development of access and benefit sharing policy for federal genetic resources does not impact existing environmental laws or provisions in place to protect traditional rights of Aboriginal peoples in Canada. This proposal assumes that the harvesting of genetic resources will have minimal environmental impacts and will lead to negligible depletion of the biological resources from which the genetic resources are taken. Should this not be the case existing environmental laws will be applied and impacts on Aboriginal rights considered through existing mechanisms.

In Situ Genetic Resources

For a number of federal genetic resources, it is suggested that the licensing and/or application systems that the federal government already has in place will provide the basis for developing access and, in some cases, benefit sharing arrangements. Permits or equivalents may include material transfer agreements, permits or licences issued under existing legislation, contractual documents, bills of sale, purchase orders and other documentation granting access.

It is proposed that:

- 1) Federal departments and agencies managing federal genetic resources identify any existing permitting or equivalent processes that are consistent with the Protocol's obligations to issue written evidence of the decision to grant prior informed consent and of the establishment of mutually agreed terms.**
- 2) Federal departments and agencies managing federal genetic resources that do not have permitting or equivalent processes in place or whose processes are insufficient to meet the Protocol's obligations to issue written evidence of the decision to grant prior informed consent and of the establishment of mutually agreed terms, develop and put in place mechanisms for granting prior informed consent for access to genetic resources under their control and the establishment of mutually agreed terms.**

In order for departments and agencies to use existing permitting or equivalent processes to provide prior informed consent, they will need to ensure that their existing processes provide consent to the utilization of genetic resources, as defined by the Protocol, for the genetic resources which they administer and control. Prior informed consent can be provided in the same document as the mutually agreed terms, in a separate document or implicitly.

To help support this work:

- 3) Environment Canada in collaboration with other federal departments will develop and make available general model templates for issuing prior informed consent and establishing mutually agreed terms to provide guidance to federal departments and agencies to further their access and benefit sharing procedures. These model templates may also be of use to Provinces, Territories, Aboriginal communities and private entities wishing to further develop their access and benefit sharing procedures.**

Benefits from genetic resources can take the form of monetary or non-monetary benefits:

- Non-monetary benefits – could include, for example, access to scientific information relevant to conservation and the sustainable use of genetic resources, collaboration and cooperation in education and training, participation in research, transfer of knowledge, technology and capacity building, and benefits to the local economy.¹⁰

¹⁰ While the Annex to the Nagoya Protocol indicates that joint ownership of relevant intellectual property rights can fall under the category of either monetary or non-monetary benefits, for the purposes of the policy proposed in this paper, intellectual property rights are viewed as falling under the category of monetary benefits only.

- Monetary benefits – could include, for example, access fees, fees per sample collected, up-front royalty payments, or milestone payments. (Annex, The Nagoya Protocol)

The Protocol also requires Parties to encourage users and providers to direct benefits arising from the utilization of genetic resources towards the conservation of biological diversity and the sustainable use of its components (Article 9).

Non-monetary benefits that could result from access and benefit sharing provisions can be of use to scientists worldwide as well as the communities in which the research is taking place and the general public. Given the many different forms that non-monetary benefits can take, it is difficult to envisage a single policy for capturing non-monetary benefits from all federal genetic resources. It is likely that those best placed to identify the information that ought to be gathered and shared are the ones that work on the ground in the region or sector where the resource is being accessed. Therefore, in order to implement provisions to grant prior informed consent and establish mutually agreed terms it is proposed that:

- 4) Departments and agencies managing federal genetic resources should determine, either as a function of an overarching policy or on a case by case basis, the manner in which non-monetary benefits will be included in the terms of the permits or equivalents.¹¹**

Monetary benefit provisions have been introduced into the access and benefit sharing policies of some other countries. In Canada, monetary benefits from the utilization of some genetic resources are already being shared in certain circumstances. However, at this stage it is difficult to know the extent to which further substantial monetary benefits could flow from the utilization of Canadian genetic resources. Therefore, in order to assist in the development of access and benefit sharing policy making:

- 5) A process will be undertaken that is aimed at further understanding whether or not capturing additional monetary benefits from the utilization of federal genetic resources is advisable in some or all instances, and the parameters for doing so.**

Nonetheless, implementation of the framework should not be delayed in anticipation of these results.

- 6) Additional monetary benefit provisions for federal genetic resources will be considered once there is further clarity on the question of whether or not it is advisable to capture additional monetary benefits from the utilization of federal genetic resources and the parameters for doing so.**

Should a determination be made that monetary benefits from federal genetic resources could or should be captured, consideration should be given to the obligation under the Protocol to encourage users and providers to direct benefits from the utilization of genetic resources to the conservation of biological diversity and the sustainable use of its components.

¹¹ With respect to this recommendation, “non-monetary benefits” does not include the joint ownership of any relevant intellectual property rights.

***Ex situ* Genetic Resources**

It is Canada's view that the Nagoya Protocol does not apply retroactively. Therefore, federal collections of genetic resources, e.g. federal *ex situ* genetic resources, acquired prior the entry into force of the Nagoya Protocol for Canada are excluded from this proposal. This is consistent with Article 28 of the *Vienna Convention on the Law of Treaties*.

It is proposed that:

- 7) Federal collections acquiring genetic resources after the entry into force of the Nagoya Protocol for Canada that are not covered under a specialized international access and benefit sharing instrument, will ensure that there are measures in place to provide that:**
- **When these genetic resources are acquired from a Party to the Nagoya Protocol the genetic resources are accessed in accordance with prior informed consent, and mutually agreed terms have been established as required by the domestic access and benefit sharing legislation or regulatory requirements of that Party. When accessed from Canadian sources, domestic legislative, regulatory or administrative access and benefit sharing provisions will be adhered to.**
 - **Any subsequent transfers of these genetic resources will occur in accordance with any mutually agreed terms that have been established;**

Best practice guidance will be developed to assist collections in meeting the above requirements.

The choice of best practice guidance to be used will be made by the federal department or agency that manages and controls the collection.

The Territories

With respect to the Territories, the authority to control access to public lands and in respect of water has either already been devolved or work on devolution is ongoing. The devolution process also lays out the rights with respect to sharing in the benefits from natural resources.¹² Therefore, in these cases it is proposed that:

- 8) The Territories will be responsible for the further development of access and benefit-sharing policies applicable to genetic resources on land or in respect of water bodies under their control.**

Access to Genetic Resources on Aboriginal Land and to Traditional Knowledge Associated with Genetic Resources and the Sharing of Benefits Arising from their Use

Under the Nagoya Protocol, Parties must take measures in accordance with domestic law that aim to ensure that the prior informed consent or approval and involvement of indigenous and local

¹² See for example, *Improving and Devolving Northern Governance*, Government of Canada.
<http://www.northernstrategy.gc.ca/gov/index-eng.asp>

communities¹³ is obtained for access to genetic resources where they have the established right to grant access to such resources (Article 6.2). This document focuses on implementing this Article with respect to Aboriginal communities.

On Aboriginal land, Aboriginal communities will provide permission for access to genetic resources and will negotiate mutually agreed terms, where so desired by the community. In order to assist Aboriginal communities in this regard, the federal government would:

- 9) Help raise awareness of access and benefit sharing issues in collaboration with Aboriginal communities in Canada.**
- 10) Make general model templates for issuing consent to and establishing mutually agreed terms available to Aboriginal communities and, where appropriate, develop related capacity.**

In addition:

- 11) The Federal government would ensure the necessary measures will be in place to enable Aboriginal communities to grant permission to access genetic resources on Aboriginal land and to establish mutually agreed terms.**

The Nagoya Protocol also contains several provisions related to managing access to traditional knowledge associated with genetic resources and the sharing of benefits arising from its use. Under the Protocol, in accordance with domestic law, each Party would commit to take measures, as appropriate, with the aim of ensuring that traditional knowledge associated with genetic resources that is held by Aboriginal communities is accessed with the prior informed consent or approval and involvement of these communities and that mutually agreed terms have been established (Article 7). Therefore, the federal government may provide some support to Aboriginal communities to: develop new systems or further develop existing systems to manage access to and enable them to benefit from the use of this knowledge. Therefore the federal government will:

- 12) Seek to raise the awareness of Aboriginal communities with respect to their ability to control access to and benefit from the use of the traditional knowledge associated with genetic resources held by these communities.**
- 13) Provide examples of systems that have been applied by Indigenous communities in Canada and elsewhere to control access to and to share in the benefits from the use of traditional knowledge associated with genetic resources and, where appropriate, explore options to develop related capacity.**

Competent National Authorities and the National Focal Point

The Nagoya Protocol requires Parties to put in place certain systems related to the oversight of the national access and benefit sharing approach and the issuance of permits or equivalents associated with access and benefit sharing.

¹³ For the purposes of this document indigenous and local communities is read to mean Aboriginal communities as no urgency to develop measures related to "local communities" is seen to exist at this time.

The National Focal Point is responsible for making information available for applicants seeking to access genetic resources or traditional knowledge associated with genetic resources anywhere in Canada including information on competent national authorities. It will also be responsible for liaising with the CBD Secretariat, including providing information on competent national authorities (Article 13).

14) Environment Canada will continue to be the National Focal Point for the Nagoya Protocol and will provide information to the public regarding procedures for accessing genetic resources and associated traditional knowledge in Canada.

Canada must also identify one or more competent national authorities. These will be responsible for advising on applicable procedures and requirements for obtaining prior informed consent and entering into mutually agreed terms for specific genetic resources. The competent national authorities will also be responsible for granting access to or, as applicable, for issuing written evidence that access provisions have been met (Article 13.2). A permit or equivalent issued by a competent national authority and made available to the Access and Benefit Sharing Clearing-House will then constitute an internationally recognized certificate of compliance (Article 17.2). The internationally recognized certificate of compliance is intended to provide legal certainty that genetic resources have been obtained in conformity with the providing country's legislative, administrative or policy measures related to access and benefit sharing.¹⁴

15) Canada will create internationally recognized certificates in two ways:

- A. A permit or equivalent is issued at the time of access by a competent national authority, the permit or equivalent contains all of the information required of an internationally recognized certificate under Article 17.4 of the Nagoya Protocol¹⁵ and the Access and Benefit Sharing Clearing-House is notified by the Competent National Authority accordingly. In this case the permit or equivalent becomes the internationally recognized certificate of compliance after such notification, or**
- B. A permit or equivalent is issued at the time of access that provides written evidence that prior informed consent was granted and mutually agreed terms were established. This written evidence can be presented by a user to the competent national authority at Environment Canada (EC-Competent National Authority) along with the additional information that must be listed on the certificate in accordance with Article 17.4. The EC-Competent National Authority will then notify the Access and Benefit Sharing Clearing-House and these documents become an international certificate of compliance.**

In addition:

¹⁴ According to the Protocol, international certificates of compliance must include information on: the issuing authority, the date of issuance, the provider, a unique identifier, the person or entity to whom prior informed consent was granted, the subject matter or genetic resources covered by the certificate, confirmation that mutually agreed terms were established, confirmation that prior informed consent was obtained and the commercial and/or non-commercial use of the genetic resource. (Article 17.4)

¹⁵ The inclusion of this information may be an iterative process as the precise nature of this information will become clearer as the international regime develops further through intergovernmental meetings.

16) A number of other entities including federal agencies, Provinces, Territories, and Aboriginal communities may be designated by Environment Canada as Competent National Authority provided they can meet the necessary criteria including:

- **Issuing written evidence of prior informed consent and that mutually agreed terms have been established.**
- **Including in their permit or equivalent the information required by Article 17.4 of the Nagoya Protocol, where required for the international certificate of compliance.**
- **Notifying the Access and Benefit Sharing Clearing-House of the issuance of such permits or equivalents.**

Agriculture and Agri-Food Canada will be the Competent National Authority for genetic resources for food and agriculture under its control and management, and other entities wishing to become Competent National Authorities will be designated as access and benefit sharing policy develops in the future.

Utilization Provisions

Article 15 of the Nagoya Protocol requires that each Party take appropriate, effective and proportionate legislative, administrative or policy measures to provide that genetic resources utilized within its jurisdiction have been accessed in accordance with prior informed consent and that mutually agreed terms have been established as required by the regulatory or legislative requirements of the other Party. The Protocol also requires that Parties take appropriate, effective and proportionate measures to address situations of non-compliance with these measures. Finally, the Protocol includes analogous provisions related to traditional knowledge associated with genetic resources. Specifically, it requires that Parties take appropriate, effective and proportionate legislative, administrative or policy measures, as appropriate, to provide that traditional knowledge associated with genetic resources utilized within their jurisdiction has been accessed in accordance with prior informed consent or approval and involvement of indigenous and local communities and that mutually agreed terms have been established, as required by domestic access and benefit-sharing legislation or regulatory requirements of the other Party where such indigenous and local communities are located (Article 16).

Implementation of Article 15 is proposed to occur through measures related to wild plants and animals as well as measures related to genetic resources from domesticated and cultivated plants and animals and micro-organisms. The Wild Animal Plant Protection and Regulation of International and Interprovincial Trade Act (WAPPRIITA) and its Wild Animal and Plant Trade Regulation (WAPTR) prohibit the import of wild plants and animals and parts and derivatives of wild plants and animals that were possessed, distributed or transported in contravention of a foreign state law. The definitions that apply to this import prohibition are broad, the definition of animal includes any specimen, whether living or dead, of any wild species of the animal kingdom (kingdom *Animalia*), including any egg, sperm, tissue culture or embryo of any such animal. The definition of plant is analogous but refers to wild plants in the plant kingdom (kingdom *Plantae*). It is proposed that:

17) WAPPRIITA and WAPTR be employed as the “...appropriate, effective and proportionate...” measure to provide that wild animal and plant genetic resources of a foreign Party utilized in Canada have been accessed in accordance with requirements regarding prior informed consent and that mutually agreed terms have been established, as required by the domestic access and benefit-sharing legislation or regulations of the foreign Party.

Measures will also be put in place to address other genetic resources as well as traditional knowledge associated with genetic resources. Specifically:

- 18) The federal government will advise users of genetic resources across the country that they ought to employ best practices to ensure that they are not using illegally accessed genetic resources and associated traditional knowledge. Guidelines to help users to comply with this recommendation will be developed and made available by the federal government.**

Monitoring the Utilization of Genetic Resources

The Nagoya Protocol requires that Parties take measures, as appropriate, to monitor and enhance transparency around the utilization of genetic resources, including the designation of one or more checkpoints (Article 17). It also affords considerable flexibility to Parties in designating checkpoints. To fulfill this function, it is suggested that the national focal point collect information on utilization in Canada of genetic resources that have been the object of internationally recognized certificates of compliance.

- 19) The national focal point will take on the role of checkpoint required by Article 17 of the Protocol. It will invite users of genetic resources that have obtained international certificates of compliance from other Parties or from the Access and Benefit Sharing Clearing-House by accessing genetic resources in their jurisdictions to submit a copy of these certificates. Federal collection managers will also submit information on the genetic resources that they acquire after the federal access and benefit sharing system is in place to the National Focal Point. Having due regard to obligations regarding confidential information, the national focal point will publish aggregate information taken from these certificates, as well as information from international certificates of compliance on its website and submit this information to the Access and Benefit Sharing Clearing-House where it will be made publicly available. Any other information users wish to submit related to prior informed consent, the establishment of mutually agreed terms and/ or the utilization of genetic resources would be welcomed and could also be published by the national focal point.**

Other existing monitoring mechanisms may also be used to provide additional information on genetic resources.

- 20) Information gathered using all pertinent existing permitting and monitoring processes will be used, as appropriate, to complement other monitoring methods employed in this proposal and to inform any further development of measures in this area.**

Reviewing Nagoya Protocol Implementation

Each Party is required to monitor the implementation of its obligations under the Protocol, and, at intervals and in the format to be determined by the Meeting of Parties, to report to the Meeting of the Parties on the measures it has taken to implement the Protocol. Through this process, Canada would, as a Party, have the opportunity to adjust its implementation over time and ensure the domestic access and benefit sharing policy's continued relevance into the future. Therefore:

- 21) Should Canada become a Party, Environment Canada in cooperation with other departments should coordinate a comprehensive review of the implementation of the Nagoya Protocol every seven years, by engaging the input of the Provinces, Territories and Aboriginal communities and key stakeholders, in order to maximize the benefits of the Protocol for Canadians and ensure continued effective implementation of the Protocol .**

Potential Applications of the Policy

Genetic resources often contribute to new discoveries, including a wide range of applications in the pharmaceutical, agricultural or industrial sectors. Studying the characteristics of genetic resources can also be an important part of scientific research activities. For example, the Pacific Yew (*Taxus brevifolia*) is an evergreen tree, with two species indigenous to Canada. Until recently, this tree was considered a nuisance weed as it was not valuable for lumber or pulp. However in 1962, the bark of the Pacific Yew was found to contain the compound taxol (paclitaxel) which has powerful anti-cancer properties. In essence, taxol actively prevents cancer cells from reproducing and can significantly improve the care of patients with lung, ovarian and breast cancer.¹⁶

This proposal is intended to enable the negotiation of mutually agreed terms to share benefits that arise from the utilization of genetic resources that are owned by governments, communities or individuals. The approach proposed in this document builds on practices that are already in place in certain sectors in Canada. For example, Agriculture and Agri-food Canada issues Standard Material Transfer Agreements (SMTAs) under the terms of the International Treaty on Plant Genetic Resources for Food and Agriculture for access to genetic resources under its management and control. Their Saskatoon Research Center has issued between 81 and 131 SMTAs per year since August, 2008.

Traditional knowledge associated with genetic resources can also assist research and development efforts related to genetic resources or offer insight into conservation activities. For example, the Canadian Institute for Health Research has supported research into the anti-diabetic effects of some medicinal plants used in Aboriginal communities in northern Quebec. The aim of the study is to combine modern science and traditional knowledge in order to develop natural health products to prevent and treat diabetes. This research has been conducted in collaboration with the Cree of Eeyou Istchee (CEI) in northern Quebec. A research agreement has been developed to facilitate close collaboration on many aspects of the research, including training and helping to establish local facilities for processing plant preparations.¹⁷

The policies proposed in this document could help Aboriginal communities develop mutually agreed terms for the utilization of the traditional knowledge which they hold, similar to the research agreement concluded by the Cree of Eeyou Istchee.

¹⁶*Taxus brevifolia* Nutt. (*Pacific Yew*), Agriculture and Agri-food Canada, available at <http://www.agr.gc.ca/eng/science-and-innovation/science-publications-and-resources/resources/canadian-medicinal-crops/medicinal-crops/taxus-brevifolia-nutt-pacific-yew/?id=1301435640373>

¹⁷ CIHR Team in Aboriginal Anti-diabetic Medicines, available at http://www.taam-emaad.umontreal.ca/publications/publication_mediacoverage.htm

Finally, as the Nagoya Protocol nears entry into force, countries around the world are putting in place legislation and regulations regarding the granting of prior informed consent for access to genetic resources and the establishment of mutually agreed terms. If implemented, this proposal would assist Canadian users of genetic resources in knowing, understanding and living up to their obligations regarding access to genetic resources, wherever they may be found.