EU submission on the modalities and operation of the Access and Benefit-sharing Clearing-House under the Nagoya Protocol

11 March 2011

The EU[1] is pleased to share with the Secretariat further views on "the modalities and operation of the Access and Benefit-sharing Clearing-House" in preparation for the first meeting of the Intergovernmental Committee (ICNP-1) for the Nagoya Protocol as requested in CBD Notification 2010-216.

First and foremost, the EU believes that the development of the modalities and operation of the Access and Benefit-sharing (ABS) Clearing-House (CH) should be based on the principle that "form should follow function". We are of the opinion that the ABS CH is an important tool to promote and enhance legal certainty, clarity and transparency in the implementation of the Nagoya Protocol. In this respect, we also believe that one of the main goals of the CH should be to support compliance through contributing to clearness, transparency and certainty. Bearing in mind that the Nagoya Protocol foresees the effective implementation, not only of Article 15 of the CBD, but also of Article 8(j), the EU is of the opinion that the CH should adequately address issues related to traditional knowledge (TK) associated with genetic resources (GR) that are relevant for the implementation of the Nagoya Protocol.

1. Organization of the CH

Formally the ABS Clearing-House will be established as part of the Clearing-House Mechanism of the CBD, as is the Biosafety Clearing-House. "Being a part of the CBD Clearing-House" in reality means that it may be technically administered by the same institution administering the CBD Clearing-House Mechanism. However, the ABS Clearing-House will have distinct tasks and features and therefore requires its own structures and channels, taking into account that on the national level the competent authorities or the focal point for ABS may be different to that of the CBD or the Biosafety Protocol. However, there are great similarities of the ABS Clearing-House with the Biosafety Clearing-House, which has a central hub at the CBD Secretariat and national nodes preferably in each Contracting Party. Therefore, the nature of the ABS Clearing-House could be a combination of a **distributed system of national ABS Clearing-House nodes** (the national ABS focal point has an important role to play in this respect) **and a central hub at the CBD Secretariat**.

2. Preparation of a MOP-1 decision on the modalities of the ABS Clearing-House

The mandate of the ABS Clearing-House is based on Article 14 paragraph 1 and its tasks mainly on paragraphs 2 and 3, as well as Articles 6, 12, 13, 17, 21, 22 and 24. However, the modalities of operation of the ABS Clearing-House shall be considered and decided upon by the first MOP meeting and need to be prepared by the First Meeting of the Open-ended Ad Hoc Intergovernmental Committee for the Nagoya Protocol on ABS (ICNP-1) in June this year. It needs to be pointed out that together with the consideration of the modalities and operation of the ABS Clearing-House and its mandate a potential multi-year programme of work may need to be considered by the first meeting of the COP/MOP as done by COP/MOP1 of the Cartagena Protocol.

The EU believes the following potential features and specifications need to be taken into account in the development of the modalities of the ABS CH:

[1] Within the context of this notification, the EU refers to the European Union and its 27 Member States.

2.1 Institutional actors that generate information relevant to the ABS CH

Under the Cartagena Protocol, both a national focal point and a Biosafety Clearing-House (BCH) focal point are in place, although no explicit distinction is made between them in the Protocol text. The main role of the BCH focal point is to ensure the well-functioning of the BCH and to make sure data is entered in a standardised form and by means of a controlled vocabulary. By contrast, the national focal point supervises the general functioning of the Protocol at national level and is responsible for liaison with the CBD Secretariat concerning substantial matters. Users who are authorized on national level (including competent national authorities) can publish information on the BCH, but theoretically only after validation by the BCH focal point.

The Nagoya Protocol refers in its provisions to different actors that have the potential to generate information relevant to the ABS CH: national focal points, competent national authorities. Other relevant actors, in particular Indigenous and Local Communities, will also have the potential to generate such information, for example with regard to community protocols and procedures. The ABS CH should establish a robust and transparent system that facilitates the availability of comprehensive information that clearly identifies and differentiates its source.

2.2 National nodes and the central portal

The BCH operates by means of a central portal, supervised by the CBD Secretariat, and national nodes in the different Parties. In theory there should be an interoperable information-exchange between national nodes and the central portal, meaning that any changes made to national nodes will automatically be reflected in the central portal as well. However, in practice relatively few Parties have established an operational national node that is interoperable with the central portal and many Parties actually publish information directly on the central portal. In this light, the EU believes it is important that the national nodes being set up by Parties for the ABS CH will have an efficient and effective interoperability with the central portal which will be supervised by the CBD Secretariat. For the BCH, the CBD Secretariat has developed interoperable modules that Parties can use when setting up their national nodes. These modules might also be useful for setting up national nodes for the ABS CH.

2.3 How to work with confidential information?

According to Article 17 paragraph 4 of the Nagoya Protocol the minimum information that shall be contained in the internationally recognised certificate of compliance when it is not confidential comprises:

(a) Issuing authority;
(b) Date of issuance;
(c) The provider;
(d) Unique identifier of the certificate;
(e) The person or entity to whom prior informed consent was granted;
(f) Subject-matter or genetic resources covered by the certificate;
(g) Confirmation that mutually agreed terms were established;
(h) Confirmation that prior informed consent was obtained; and(
(i) Commercial and/or non-commercial use.

The EU believes that the above list is the minimum information that, in principle, is not confidential, unless otherwise determined by the respective providers and users (‘*when it is not confidential*’). The EU is of the view that what constitutes confidential information under

the Nagoya Protocol differs significantly from confidential information under the Cartagena Protocol, and therefore believes that the characterisation and treatment of confidential information in the context of the ABS CH will need substantial further work. The EU reserves its right to come back on this with more concrete proposals and recommendations.

2.4 Should translation of information be provided for?

To enable global access to information, the central portal of the ABS Clearing-House at the CBD Secretariat needs to operate in all six UN languages for both reporting and retrieving data. However, to achieve this, a Clearing-House would need to use common formats for reporting information from distributed sources, and standardized terminology or "controlled vocabulary" to categorize the information contained within the databases. This allows the users of the Clearing-House to use the same terms whether they are registering information or searching for it, including synonyms within a language; relationships between terms; and between languages. The EU is of the view that all information should be submitted to the ABS Clearing-House in one of the six official languages of the United Nations, while recognizing that full information sources and documents that are linked to records from the ABS Clearing-House may be available only in a language of the submitting Government and not in an official language of the United Nations.

2.5 What information concerning the national ABS systems, the permit or its equivalent should be notified/made available to the Clearing-House?

The EU believes that by publishing details, including dates of entry into force, of relevant domestic legislation or regulatory requirements on the ABS CH Parties will provide greater clarity and transparency to users and providers of genetic resources and traditional knowledge associated with genetic resources and help fulfil their commitments under Article 6.3 of the Protocol.

Article 14.2.c) of the Protocol requires Parties to make information available, without prejudice to the protection of confidential information, including information about permits or their equivalent issued, while Article 17.2 states that a permit or its equivalent issued and made available to the ABS Clearing-House constitutes an internationally recognised certificate of compliance, which shall serve as evidence that the genetic resource has been accessed in accordance with PIC and that MAT have been established.

Article 17 para. 4 indicates the type of information which shall be contained in the certificate of compliance, which is: the issuing authority, date of issuance, the provider, a unique identifier of the certificate, the person or entity to whom PIC was granted, subject-matter or genetic resources covered by the certificate, confirmation of mutually agreed terms (MAT), confirmation of PIC and lastly about the commercial and/or non-commercial use. All this information covered by the certificate of compliance shall be made available, when it is not confidential, to the ABS Clearing-House when the Party is informing the Clearing-House according to Art. 14.2.c) of the Protocol. A unique identifier could take different forms while still assisting in facilitated identification of where and by whom the original PIC for access to a GR was granted. Therefore, as for the ABS Clearing-House in its entirety the principle of "form follows function" is important.

2.6 Overview of useful sections of the modalities and operation of the Biosafety CH

The EU sees merit in several sections of the modalities and operation of the Biosafety CH, which could be used as a blueprint when developing the ABS CH. These include:

- ***Role of the ABS Clearing-House***

The ABS CH has a great role in the provision and exchange of information and also in awareness-raising in support of the implementation of the Nagoya Protocol. With respect to the information to be made available on the ABS CH, the EU believes the following provisions of the Nagoya Protocol are particularly relevant:

- Article 14.2 and 14.3
- Article 8
- Article 17.1(a) (iii) and 17.2
- Article 21(d).

- ***Characteristics of the ABS Clearing-House***

- ***Reports on activities***

- ***Periodic review***

EU submission on measures to assist in the capacity-building, capacity development and strengthening of human resources and institutional capacities in developing countries

11 March 2011

The EU[1] is pleased to share with the Secretariat further views on "measures to assist in the capacity-building, capacity development and strengthening of human resources and institutional capacities in developing countries" in preparation for the first meeting of the Intergovernmental Committee (ICNP-1) for the Nagoya Protocol as requested in CBD Notification 2010-216.

In order to support an early ratification and coherent implementation of the Nagoya Protocol Parties should engage in an effective and coordinated capacity development process and implement concrete measures to support capacity development and strengthen human resources and institutional capacities. It should be kept in mind that the implementation of the Nagoya Protocol needs the comprehensive involvement of all relevant sectors at national level.

Joint capacity-building and development activities, in particular for developing ABS measures are important to ensure a comprehensive approach to implementation and to the establishment of ownership for implementation of all sectors concerned. In this regard cooperation with the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) as a legally binding instrument that provides for an access and benefit-sharing mechanism is of great importance. The implementation of the Nagoya Protocol could benefit from the expertise and experience of the ITPRGFA in running an international access and benefit-sharing system and related capacity-building activities, and more specifically in establishing technical support to stakeholders and information systems that support implementation. In this regard, besides cooperation with the ITPGRFA Secretariat, involving National Focal Points, or other experts in national capacity-building activities could be beneficial to enhance cooperation and coordination. The ITPGRFA Secretariat has also developed learning modules that can be included into or harmonized with the capacity-building activities of the CBD Secretariat.

Capacity development for ABS could address the following areas of intervention:
- Policy and strategy
- Domestic legislation
- Institutional arrangements
- Transboundary issues
- Adding value to genetic resources and associated traditional knowledge

The individual focus of measures will depend on the status of ABS implementation in the specific country and/or region, and should take into consideration the overall institutional and other capacity development needs (as identified in the initial needs assessments). Activities should address two important elements of capacity building:

- development of national / regional ABS measures, and
- implementation of national / regional ABS measures.

Element 1: Development of national / regional ABS measures

[1] Within the context of this notification, the EU refers to the European Union and its 27 Member States.

What do we have?

Preparations for the national and regional implementation of the Nagoya Protocol could be guided by the following to identify the existing national / regional ABS measures:

1. Assessment of relevant provisions with regards to access to genetic resources (GR) and associated traditional knowledge (TK) and/or benefit-sharing in existing national and regional

   - policies and strategies (mandatory or voluntary) in relevant sectors, such as forestry, fisheries, agriculture, science and technology, pharmacy, cosmetic, traditional medicine (among others)
   - legislation, regulations of relevant sectors – as above including health, property rights (including intellectual property rights), culture, research/science, industry (among others)

2. Stock-taking of ownership and use-rights of GR, TK, and assessment of relevant property rights provisions as specified in constitution, specific legislation and regulations. Transboundary aspects could also be addressed.

3. Assessment of pros and cons for stand-alone domestic ABS legislation vs. integration of ABS provisions in existing sector legislation/regulations.

4. Mapping of institutional actors which need to be involved in the sectoral development of the implementation strategy (e.g. forestry, agriculture, health, cosmetic, science & technology, traditional knowledge, public authorities), including regional organizations that may add value to national implementation.

5. Mapping of current and potential users of GR and TK associated with GR including specific utilizations.

6. Mapping of stakeholders and actors who

   - play a role in GR management and governance (e.g. protected areas authorities, ILCs, plant/animal breeders, gene bank managers, public authorities, scientists),
   - will be affected by national ABS implementation (e.g. as above, health sector, research institutions, private sector utilizing GR and TK associated with GR).

7. Mapping of institutional actors relevant to the utilization of GR and TK associated with GR in relation to monitoring compliance measures.

8. Stock-taking of existing institutional arrangements and assessment which could play a role in permitting processes and GR management and governance, including competent national authorities.

9. Stock-taking of national, foreign and international institutions/universities/research organisations conducting research and/or development on GR, particularly their naturally occurring (bio-)chemical compound resulting from the genetic expression or metabolism of biological resources or GR, even if it does not contain functional units of heredity. This includes also users of traditional knowledge associated with GR

10. What are obstacles to adding value to GR or maximizing values of GR? How to overcome them?

11. Assess the needs towards which to direct in priority the benefits, and the type of benefits to include in mutually agreed terms.

Time and resource requirements for such stocktaking and assessment will largely depend on the administrative structure of a country (federal vs. centralized system) as well as the number of research / development) institutions and (domestic and foreign) companies and others utilizing genetic resources.

What do we need?

Mirroring the outcomes of the above analysis against the obligations under the Nagoya Protocol – resulting in a gap analysis – provides guidance for the development of a national/regional ABS policy/strategy and the necessary steps to undertake for the national and regional implementation of the Nagoya Protocol.

It will be necessary to assess which policy, legal, and regulatory measures should be developed to govern access to the genetic resources and benefit sharing under national and/or domestic jurisdictions and where issues would require regional coordination/harmonization.

Element 2: Implementation of national / regional ABS measures

What should be done to implement the policy decision?

- Adapt/ amend existing policies/legislation/regulation not in conformity.
- Set-up a new framework by developing new measures (e.g. on compliance, certificates, monitoring).

Measures related to access, benefit sharing and compliance could include:

- The development of models of benefit-sharing agreements and clauses including prior informed consent (PIC) and mutually agreed terms (MAT).
- Development of approaches to ensure that TK is accessed with the involvement/participation of indigenous and local communities.
- The development of administrative procedures on how to obtain PIC, when a Party decides to require PIC, and establish MAT between users and providers, and the issuance of a permit or its equivalent as evidence of PIC and the establishment of MAT.
- The development of necessary systems for monitoring access and utilization of genetic resources and associated traditional knowledge.
- Development of appropriate, effective and proportionate measures for users that fail to respect ABS legislations of other Parties, in line with the nature and severity of the misappropriation.
- Development and implementation of voluntary guidelines, codes of conduct, public awareness and education on ABS and the new protocol.
- Support for the development and implementation of pilot agreements.
- Support for monitoring and evaluation.
- Support the identification in the provider country of genetic resources with potential value (commercial or not).
- Improve related R&D capacity at national and/or regional level to add value domestically resulting in access for "users" at higher stages of the value chain.

EU submission on procedures and mechanisms to promote compliance with the Nagoya Protocol on ABS

11 March 2011

The EU[1] is pleased to share with the Secretariat further views on "Cooperative procedures and institutional mechanisms to promote compliance with the Protocol and to address cases of non-compliance, including procedures and mechanisms to offer advice or assistance" (hereinafter "compliance mechanism") in preparation for the first meeting of the Intergovernmental Committee (ICNP-1) for the Nagoya Protocol as requested in CBD Notification 2010-216.

The EU is of the opinion that compliance mechanisms are major tools for ensuring the effectiveness of and improving compliance with Multilateral Environmental Agreements (MEAs). They should promote compliance and address cases of non-compliance *inter alia* through the provision of advice and assistance, in a simple, facilitative, non-adversarial, non-judicial and cooperative manner. Any compliance mechanism should therefore cover those areas where Parties encounter difficulties with the implementation and/or interpretation of the MEA. Furthermore fairness, transparency, expedition, predictability and confidentiality should be ensured by a solution-oriented approach and procedural safeguards where relevant.

However, experience has shown that for a compliance mechanism to be meaningful and effective, it must be tailored to the nature and characteristics of the MEA concerned, and proper links should be established with other relevant processes, such as monitoring and reporting, capacity building and the clearing house mechanism. The EU is of the opinion that this is also the case for the Nagoya Protocol, and that more information is needed to design a compliance mechanism that will contribute to an effective ABS regime. Therefore, the EU suggests that the Intergovernmental Committee in considering cooperative procedures and institutional mechanisms to promote compliance and address cases of non-compliance, should look at:

- the specific characteristics and needs of compliance under the Nagoya Protocol;
- existing compliance mechanisms and innovative options;
- lessons learnt from existing compliance mechanisms; and
- potentially, experiences from other compliance negotiations.

In order to assist the Intergovernmental Committee in its task, the EU would like to suggest that the Executive Secretary:

- prepare an analysis of the Nagoya Protocol with regards to compliance aspects;
- make information on existing compliance mechanisms available, drawing on work done in this regard under the Cartagena Protocol;
- prepare an overview of possible options that would respond to the needs identified in the Protocol, taking into account the analysis referred to above, the available information on existing mechanisms and the submissions received.

The EU supports the correct and full implementation of the Nagoya Protocol and believes that a well-conceived compliance mechanism could be an important element to promote this. It will therefore be important for the ABS ICNP-1 to have all relevant information available in a timely manner to achieve real progress on this issue.

[1] Within the context of this submission, the "EU" refers to the European Union and its 27 Member States.

EU submission on sectoral and cross-sectoral model contractual clauses for mutually agreed terms and existing guidelines and codes of conduct related to access and benefit-sharing; and measures to raise awareness of access and benefit-sharing

11 March 2011

In CBD Notification 2010-216 the Executive Secretary invites Parties to submit at their earliest convenience other information in support of the implementation of the Nagoya Protocol. In this regard the EU is pleased to share with the Secretariat "**existing guidelines and codes of conduct related to access and benefit-sharing**":

- The **International Plant Exchange Network (IPEN) Code of Conduct**[1] is the unified policy of the network of botanical gardens. It covers acquisition, maintenance and supply of living plant material by the gardens as well as benefit-sharing. The Code further provides a Material Transfer Agreement to be used for exchanges with institutions that are not member of the IPEN network for non-commercial uses.
- Another Botanical Gardens initiative is the '**Principles on Access for Genetic Resources and Benefit Sharing for participating Institutions**'[2].
- The **Micro-Organisms Sustainable use and Access regulation International Code of Conduct**[3] (MOSAICC) with a number of partner organizations is a voluntary Code of Conduct to support the implementation of the CBD in microbial work. Its aim is to help facilitate access to genetic resources and to help partners make appropriate agreements when transferring micro-organisms.
- The International Federation of Pharmaceutical Manufacturers and Associations (IFPMA) has established a set of '**Guidelines for IFPMA Members on Access to Genetic Resources and Equitable Sharing of Benefits Arising out of their Utilization**'[4].
- Takes note of the contractual clauses within the **Standard Material Transfer Agreement** (SMTA) of the International Treaty on Plant Genetic Resources for Food and Agriculture as an example for the development of possible model contractual clauses (See: Annex 1).

In the same CBD Notification Parties are invited to provide views on "measures to raise awareness of the importance of genetic resources and traditional knowledge associated with genetic resources, and related access and benefit-sharing issues". The EU is pleased to share with the Secretariat such **"awareness-raising measures of the importance of access and benefit-sharing":**

- Checklist for the implementation of the **AEGIS** (*A European Genebank Integrated System)* Memorandum of Understanding at national level (See: Annex 2).

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[1] Found at http://www.bgci.org/resources/ipen/
[2] Found at http://www.bgci.org/worldwide/article/0007/
[3] Found at http://bccm.belspo.be/projects/mosaicc/
[4] Found at http://www.ifpma.org/Issues/CBD and http://www.ifpma.org/Issues/fileadmin/templates/ifpmaissues/pdfs/2008_05_22_Guidelines_Genetic_Resources_EN.pdf

In the context of the European Cooperative Programme on plant genetic resources for food and agriculture (ECPGR), European countries are engaging in a project to establish a virtual European Collection, AEGIS. This material (from Annex 1 and non-Annex 1 crops of the ITPGRFA) is being made available under the terms and conditions of the Standard Material Transfer Agreement adopted under the International Treaty for Plant Genetic Resources for Food and Agriculture, and thus allows for the sharing of the benefits arising out of their utilization in a fair and equitable manner taking into account the special characteristics of plant genetic resources for food and agriculture.

- The **Report of the International Technical Expert Workshop on "Exploring the need for specific measures for Access and Benefit-Sharing of Animal Genetic Resources for Food and Agriculture"** held in Wageningen, the Netherlands, from 8-10 December 2010 is not to be considered as a negotiated and agreed document but contains relevant information (See: Annex 3).

In December 2010, an International Technical Expert Workshop was held in Wageningen in order to assess the need for specific ABS measures for animal genetic resources for food and agriculture, taking into account the recently adopted Nagoya Protocol and the ongoing work of the FAO Commission on Genetic Resources for Food and Agriculture.

STANDARD MATERIAL TRANSFER AGREEMENT

PREAMBLE

WHEREAS

The International Treaty on Plant Genetic Resources for Food and Agriculture (hereinafter referred to as "the **Treaty**")[1] was adopted by the Thirty-first session of the FAO Conference on 3 November 2001 and entered into force on 29 June 2004;

The objectives of the **Treaty** are the conservation and sustainable use of **Plant Genetic Resources for Food and Agriculture** and the fair and equitable sharing of the benefits arising out of their use, in harmony with the Convention on Biological Diversity, for sustainable agriculture and food security*;*

The Contracting Parties to the **Treaty**, in the exercise of their sovereign rights over their **Plant Genetic Resources for Food and Agriculture**, have established a **Multilateral System** both to facilitate access to **Plant Genetic Resources for Food and Agriculture** and to share, in a fair and equitable way, the benefits arising from the utilization of these resources, on a complementary and mutually reinforcing basis;

Articles 4, 11, 12.4 and 12.5 of the **Treaty** are borne in mind;

The diversity of the legal systems of the Contracting Parties with respect to their national procedural rules governing access to courts and to arbitration, and the obligations arising from international and regional conventions applicable to these procedural rules, are recognized;

Article 12.4 of the **Treaty** provides that facilitated access under the **Multilateral System** shall be provided pursuant to a Standard Material Transfer Agreement, and the **Governing Body** of the **Treaty**, in its Resolution 1/2006 of 16 June 2006, adopted the Standard Material Transfer Agreement.

[1] *Note by the Secretariat*: as suggested by the Legal Working Group during the Contact Group for the Drafting of the Standard Material Transfer Agreement, defined terms have, for clarity, been put in bold throughout.

ARTICLE 1 — PARTIES TO THE AGREEMENT

1.1 The present Material Transfer Agreement (hereinafter referred to as "**this Agreement**") is the Standard Material Transfer Agreement referred to in Article 12.4 of the **Treaty**.

1.2 **This Agreement** is:

BETWEEN: (*name and address of the provider or providing institution, name of authorized official, contact information for authorized official*[*]) (hereinafter referred to as "the **Provider**"),

AND: (*name and address of the recipient or recipient institution, name of authorized official, contact information for authorized official*[*]) (hereinafter referred to as "the **Recipient**").

1.3 The parties to **this Agreement** hereby agree as follows:

ARTICLE 2 — DEFINITIONS

In **this Agreement** the expressions set out below shall have the following meaning:

"*Available without restriction*": a **Product** is considered to be available without restriction to others for further research and breeding when it is available for research and breeding without any legal or contractual obligations, or technological restrictions, that would preclude using it in the manner specified in the **Treaty**.

"*Genetic material*" means any material of plant origin, including reproductive and vegetative propagating material, containing functional units of heredity.

"*Governing Body*" means the **Governing Body** of the **Treaty**.

"*Multilateral System*" means the **Multilateral System** established under Article 10.2 of the **Treaty**.

"*Plant Genetic Resources for Food and Agriculture*" means any **genetic material** of plant origin of actual or potential value for food and agriculture.

"Plant Genetic Resources for Food and Agriculture under Development" means material derived from the **Material**, and hence distinct from it, that is not yet ready for **commercialization** and which the developer intends to further develop or to transfer to another person or entity for further development. The period of development for the **Plant Genetic Resources for Food and Agriculture under Development** shall be deemed to have ceased when those resources are **commercialized** as a **Product**.

"*Product*" means **Plant Genetic Resources for Food and Agriculture** that incorporate[2] the **Material** or any of its genetic parts or components that are ready for **commercialization**, excluding commodities and other products used for food, feed and processing.

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[*] *Insert as necessary. Not applicable for shrink-wrap and click-wrap Standard Material Transfer Agreements.*

A "shrink-wrap" Standard Material Transfer Agreement is where a copy of the Standard Material Transfer Agreement is included in the packaging of the **Material**, and the **Recipient's** acceptance of the **Material** constitutes acceptance of the terms and conditions of the Standard Material Transfer Agreement.

A "click-wrap" Standard Material Transfer Agreement is where the agreement is concluded on the internet and the **Recipient** accepts the terms and conditions of the Standard Material Transfer Agreement by clicking on the appropriate icon on the website or in the electronic version of the Standard Material Transfer Agreement, as appropriate.

[2] As evidenced, for example, by pedigree or notation of gene insertion.

"*Sales*" means the gross income resulting from the **commercialization** of a **Product** or **Products**, by the **Recipient**, its affiliates, contractors, licensees and lessees.

"***To commercialize***" means to sell a **Product** or **Products** for monetary consideration on the open market, and "**commercialization**" has a corresponding meaning. **Commercialization** shall not include any form of transfer of **Plant Genetic Resources for Food and Agriculture under Development**.

ARTICLE 3 — SUBJECT MATTER OF THE MATERIAL TRANSFER AGREEMENT

The **Plant Genetic Resources for Food and Agriculture** specified in *Annex 1* to **this Agreement** (hereinafter referred to as the "**Material**") and the available related information referred to in Article 5b and in *Annex 1* are hereby transferred from the **Provider** to the **Recipient** subject to the terms and conditions set out in **this Agreement**.

ARTICLE 4 — GENERAL PROVISIONS

4.1 **This Agreement** is entered into within the framework of the **Multilateral System** and shall be implemented and interpreted in accordance with the objectives and provisions of the **Treaty**.

4.2 The parties recognize that they are subject to the applicable legal measures and procedures, that have been adopted by the Contracting Parties to the **Treaty**, in conformity with the **Treaty**, in particular those taken in conformity with Articles 4, 12.2 and 12.5 of the **Treaty**.[3]

4.3 The parties to **this Agreement** agree that (*the entity designated by the **Governing Body***),[4] acting on behalf of the **Governing Body** of the **Treaty** and its **Multilateral System**, is the third party beneficiary under **this Agreement**.

4.4 The third party beneficiary has the right to request the appropriate information as required in Articles 5e, 6.5c, 8.3 and *Annex, 2 paragraph 3,* to **this Agreement**.

4.5 The rights granted to the (*the entity designated by the **Governing Body***) above do not prevent the **Provider** and the **Recipient** from exercising their rights under **this Agreement**.

ARTICLE 5 — RIGHTS AND OBLIGATIONS OF THE PROVIDER

The **Provider** undertakes that the **Material** is transferred in accordance with the following provisions of the **Treaty**:

a) Access shall be accorded expeditiously, without the need to track individual accessions and free of charge, or, when a fee is charged, it shall not exceed the minimal cost involved;

[3] In the case of the International Agricultural Research Centres of the Consultative Group on International Agricultural Research (CGIAR) and other international institutions, the Agreement between the Governing Body and the CGIAR Centres and other relevant institutions will be applicable.

[4] *Note by the Secretariat:* by Resolution 2/2006, the Governing Body "invite[d] the Food and Agriculture Organization of the United Nations, as the Third Party Beneficiary, to carry out the roles and responsibilities as identified and prescribed in the Standard Material Transfer Agreement, under the direction of the Governing Body, in accordance with the procedures to be established by the Governing Body at its next session". Upon acceptance by the FAO of this invitation, the term, "the entity designated by the Governing Body", will be replaced throughout the document by the term, "the Food and Agriculture Organization of the United Nations".

b) All available passport data and, subject to applicable law, any other associated available non-confidential descriptive information, shall be made available with the **Plant Genetic Resources for Food and Agriculture** provided;

c) Access to **Plant Genetic Resources for Food and Agriculture under Development**, including material being developed by farmers, shall be at the discretion of its developer, during the period of its development;

d) Access to **Plant Genetic Resources for Food and Agriculture** protected by intellectual and other property rights shall be consistent with relevant international agreements, and with relevant national laws;

e) The **Provider** shall periodically inform the **Governing Body** about the Material Transfer Agreements entered into, according to a schedule to be established by the **Governing Body**. This information shall be made available by the **Governing Body** to the third party beneficiary.[5]

ARTICLE 6 — RIGHTS AND OBLIGATIONS OF THE RECIPIENT

6.1 The **Recipient** undertakes that the **Material** shall be used or conserved only for the purposes of research, breeding and training for food and agriculture. Such purposes shall not include chemical, pharmaceutical and/or other non-food/feed industrial uses.

6.2 The **Recipient** shall not claim any intellectual property or other rights that limit the facilitated access to the **Material** provided under **this Agreement**, or its genetic parts or components, in the form received from the **Multilateral System**.

6.3 In the case that the **Recipient** conserves the **Material** supplied, the **Recipient** shall make the **Material**, and the related information referred to in Article 5b, available to the **Multilateral System** using the Standard Material Transfer Agreement.

6.4 In the case that the **Recipient** transfers the **Material** supplied under **this Agreement** to another person or entity (hereinafter referred to as "the **subsequent recipient**"), the **Recipient** shall

a) do so under the terms and conditions of the Standard Material Transfer Agreement, through a new material transfer agreement; and

b) notify the **Governing Body**, in accordance with Article 5e.

On compliance with the above, the **Recipient** shall have no further obligations regarding the actions of the **subsequent recipient**.

6.5 In the case that the **Recipient** transfers a **Plant Genetic Resource for Food and Agriculture under Development** to another person or entity, the **Recipient** shall:

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[5] *Note by the Secretraiat:* The Standard Material Transfer Agreement makes provision for information to be provided to the **Governing Body**, in the following Articles: 5e, 6.4b, 6.5c and 6.11h, as well as in *Annex 2*, paragraph 3, *Annex 3*, paragraph 4, and in *Annex 4*. Such informationshould be submitted to:

The Secretary
International Treaty on Plant Genetic Resources for Food and Agriculture
Food and Agriculture Organization of the United Nations
I-00100 Rome, Italy

a) do so under the terms and conditions of the Standard Material Transfer Agreement, through a new material transfer agreement, provided that Article 5a of the Standard Material Transfer Agreement shall not apply;

b) identify, in *Annex 1* to the new material transfer agreement, the **Material** received from the **Multilateral System**, and specify that the **Plant Genetic Resources for Food and Agriculture under Development** being transferred are derived from the **Material**;

c) notify the **Governing Body**, in accordance with Article 5e; and

d) have no further obligations regarding the actions of any **subsequent recipient**.

6.6 Entering into a material transfer agreement under paragraph 6.5 shall be without prejudice to the right of the parties to attach additional conditions, relating to further product development, including, as appropriate, the payment of monetary consideration.

6.7 In the case that the **Recipient commercializes** a **Product** that is a **Plant Genetic Resource for Food and Agriculture** and that incorporates **Material** as referred to in Article 3 of **this Agreement**, and where such **Product** is not **available without restriction** to others for further research and breeding, the **Recipient** shall pay a fixed percentage of the **Sales** of the **commercialized Product** into the mechanism established by the **Governing Body** for this purpose, in accordance with *Annex 2* to **this Agreement**.

6.8 In the case that the **Recipient commercializes** a **Product** that is a **Plant Genetic Resource for Food and Agriculture** and that incorporates **Material** as referred to in Article 3 of **this Agreement** and where that **Product** is **available without restriction** to others for further research and breeding, the **Recipient** is encouraged to make voluntary payments into the mechanism established by the **Governing Body** for this purpose in accordance with *Annex 2* to **this Agreement**.

6.9 The **Recipient** shall make available to the **Multilateral System**, through the information system provided for in Article 17 of the **Treaty**, all non-confidential information that results from research and development carried out on the **Material**, and is encouraged to share through the **Multilateral System** non-monetary benefits expressly identified in Article 13.2 of the **Treaty** that result from such research and development. After the expiry or abandonment of the protection period of an intellectual property right on a **Product** that incorporates the **Material**, the **Recipient** is encouraged to place a sample of this **Product** into a collection that is part of the **Multilateral System**, for research and breeding.

6.10 A **Recipient** who obtains intellectual property rights on any **Products** developed from the **Material** or its components, obtained from the **Multilateral System**, and assigns such intellectual property rights to a third party, shall transfer the benefit-sharing obligations of **this Agreement** to that third party.

6.11 The **Recipient** may opt as per *Annex 4*, as an alternative to payments under Article 6.7, for the following system of payments:

a) The **Recipient** shall make payments at a discounted rate during the period of validity of the option;

b) The period of validity of the option shall be ten years renewable in accordance with *Annex 3* to **this Agreement**;

c) The payments shall be based on the **Sales** of any **Products** and of the sales of any other products that are **Plant Genetic Resources for Food and Agriculture** belonging to the same

crop, as set out in Annex 1 to the **Treaty**, to which the **Material** referred to in *Annex 1* to **this Agreement** belongs;

d) The payments to be made are independent of whether or not the **Product** is **available without restriction**;

e) The rates of payment and other terms and conditions applicable to this option, including the discounted rates are set out in *Annex 3* to **this Agreement**;

f) The **Recipient** shall be relieved of any obligation to make payments under Article 6.7 of **this Agreement** or any previous or subsequent Standard Material Transfer Agreements entered into in respect of the same crop;

g) After the end of the period of validity of this option the **Recipient** shall make payments on any **Products** that incorporate **Material** received during the period in which this Article was in force, and where such **Products** are not **available without restriction**. These payments will be calculated at the same rate as in paragraph (a) above;

h) The **Recipient** shall notify the **Governing Body** that he has opted for this modality of payment. If no notification is provided the alternative modality of payment specified in Article 6.7 will apply.

ARTICLE 7 — APPLICABLE LAW

The applicable law shall be General Principles of Law, including the UNIDROIT Principles of International Commercial Contracts 2004, the objectives and the relevant provisions of the **Treaty**, and, when necessary for interpretation, the decisions of the **Governing Body**.

ARTICLE 8 — DISPUTE SETTLEMENT

8.1 Dispute settlement may be initiated by the **Provider** or the **Recipient** or the (*the entity designated by the **Governing Body***), acting on behalf of the **Governing Body** of the **Treaty** and its **Multilateral System**.

8.2 The parties to **this Agreement** agree that the (*the entity designated by the **Governing Body***), representing the **Governing Body** and the **Multilateral System**, has the right, as a third party beneficiary, to initiate dispute settlement procedures regarding rights and obligations of the **Provider** and the **Recipient** under **this Agreement**.

8.3 The third party beneficiary has the right to request that the appropriate information, including samples as necessary, be made available by the **Provider** and the **Recipient**, regarding their obligations in the context of **this Agreement**. Any information or samples so requested shall be provided by the **Provider** and the **Recipient**, as the case may be.

8.4 Any dispute arising from **this Agreement** shall be resolved in the following manner:

a) Amicable dispute settlement: The parties shall attempt in good faith to resolve the dispute by negotiation.

b) Mediation: If the dispute is not resolved by negotiation, the parties may choose mediation through a neutral third party mediator, to be mutually agreed.

c) Arbitration: If the dispute has not been settled by negotiation or mediation, any party may submit the dispute for arbitration under the Arbitration Rules of an international body as agreed by the parties to the dispute. Failing such agreement, the dispute shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce, by one or more arbitrators appointed in accordance with the said Rules. Either party to the dispute may, if it so chooses, appoint its arbitrator from such list of experts as the Governing Body may establish for this purpose; both parties, or the arbitrators appointed by them, may agree to appoint a sole arbitrator, or presiding arbitrator as the case may be, from such list of experts. The result of such arbitration shall be binding.

ARTICLE 9 — ADDITIONAL ITEMS

Warranty

9.1 The **Provider** makes no warranties as to the safety of or title to the **Material**, nor as to the accuracy or correctness of any passport or other data provided with the **Material**. Neither does it make any warranties as to the quality, viability, or purity (genetic or mechanical) of the **Material** being furnished. The phytosanitary condition of the **Material** is warranted only as described in any attached phytosanitary certificate. The **Recipient** assumes full responsibility for complying with the recipient nation's quarantine and biosafety regulations and rules as to import or release of **genetic material**.

Duration of Agreement

9.2 **This Agreement** shall remain in force so long as the **Treaty** remains in force.

ARTICLE 10 — SIGNATURE/ACCEPTANCE

The **Provider** and the **Recipient** may choose the method of acceptance unless either party requires **this Agreement** to be signed.

Option 1 –Signature[*]

I, (*Full Name of Authorized Official*), represent and warrant that I have the authority to execute **this Agreement** on behalf of the **Provider** and acknowledge my institution's responsibility and obligation to abide by the provisions of **this Agreement**, both by letter and in principle, in order to promote the conservation and sustainable use of **Plant Genetic Resources for Food and Agriculture**.

Signature..... Date.....
Name of the **Provider** ……

I, (*Full Name of Authorized Official*), represent and warrant that I have the authority to execute **this Agreement** on behalf of the **Recipient** and acknowledge my institution's responsibility and obligation to abide by the provisions of **this Agreement**, both by letter and in principle, in order to promote the conservation and sustainable use of **Plant Genetic Resources for Food and Agriculture**.

Signature..... Date.....
Name of the **Recipient**……

Option 2 – Shrink-wrap Standard Material Transfer Agreements[*]

The **Material** is provided conditional on acceptance of the terms of **this Agreement**. The provision of the **Material** by the **Provider** and the **Recipient's** acceptance and use of the **Material** constitutes acceptance of the terms of **this Agreement**.

Option 3 – Click-wrap Standard Material Transfer Agreement[*]

□ I hereby agree to the above conditions.

[*] Where the **Provider** chooses signature, only the wording in Option 1 will appear in the Standard Material Transfer Agreement. Similarly where the **Provider** chooses either shrink-wrap or click-wrap, only the wording in Option 2 or Option 3, as appropriate, will appear in the Standard Material Transfer Agreement. Where the "click-wrap" form is chosen, the **Material** should also be accompanied by a written copy of the Standard Material Transfer Agreement.

Annex 1

LIST OF MATERIALS PROVIDED

This *Annex* contains a list of the **Material** provided under **this Agreement**, including the associated information referred to in Article 5b.

This information is either provided below or can be obtained at the following website: (*URL*).

The following information is included for each **Material** listed: all available passport data and, subject to applicable law, any other associated, available, non-confidential descriptive information.

(*List*)

Annex 2

RATE AND MODALITIES OF PAYMENT UNDER ARTICLE 6.7 OF THIS AGREEMENT

1. If a **Recipient**, its affiliates, contractors, licensees, and lessees, **commercializes** a **Product** or **Products**, then the **Recipient** shall pay one point-one percent (1.1 %) of the **Sales** of the **Product** or **Products** less thirty percent (30%); except that no payment shall be due on any **Product** or **Products** that:

(a) are **available without restriction** to others for further research and breeding in accordance with Article 2 of **this Agreement**;

(b) have been purchased or otherwise obtained from another person or entity who either has already made payment on the **Product** or **Products** or is exempt from the obligation to make payment pursuant to subparagraph (a) above;

(c) are sold or traded as a commodity.

2. Where a **Product** contains a **Plant Genetic Resource for Food and Agriculture** accessed from the **Multilateral System** under two or more material transfer agreements based on the Standard Material Transfer Agreement only one payment shall be required under paragraph 1 above.

3. The **Recipient** shall submit to the **Governing Body**, within sixty (60) days after each calendar year ending December 31st, an annual report setting forth:

(a) the **Sales** of the **Product** or **Products** by the **Recipient**, its affiliates, contractors, licensees and lessees, for the twelve (12) month period ending on December 31st;

(b) the amount of the payment due; and

(c) information that allows for the identification of any restrictions that have given rise to the benefit-sharing payment.

4. Payment shall be due and payable upon submission of each annual report. All payments due to the **Governing Body** shall be payable in *United States dollars (US$)*[6] for the following account established by the **Governing Body** in accordance with Article 19.3f of the **Treaty**[7]:

FAO Trust Fund (USD) GINC/INT/031/MUL,
IT-PGRFA (Benefit-sharing),
HSBC New York, 452 Fifth Ave., New York, NY, USA, 10018,
Swift/BIC: MRMDUS33, ABA/Bank Code: 021001088,
Account No. 000156426

[6] *Note by the Secretariat:* The Governing Body has not yet considered the question of currency of payment. Until it does so, Standard Material Transfer Agreements should specify United States dollars (US$).

[7] *Note by the Secretariat:* This is the Trust Account provided for in Article 6.3 of the Financial Rules, as approved by the Governing Body at its First Session (*Appendix E* to IT/GB-1/06/Report).

Annex 3

TERMS AND CONDITIONS OF THE ALTERNATIVE PAYMENTS SCHEME UNDER ARTICLE 6.11 OF THIS AGREEMENT

1. The discounted rate for payments made under Article 6.11 shall be zero point five percent (0.5 %) of the **Sales** of any **Products** and of the sales of any other products that are **Plant Genetic Resources for Food and Agriculture** belonging to the same crop, as set out in Annex 1 to the **Treaty**, to which the **Material** referred to in *Annex 1* to **this Agreement** belong.

2. Payment shall be made in accordance with the banking instructions set out in paragraph 4 of *Annex 2* to **this Agreement**.

3. When the **Recipient** transfers **Plant Genetic Resources for Food and Agriculture under Development**, the transfer shall be made on the condition that the **subsequent recipient** shall pay into the mechanism established by the **Governing Body** under Article 19.3f of the **Treaty** zero point five percent (0.5 %) of the **Sales** of any **Product** derived from such **Plant Genetic Resources for Food and Agriculture under Development**, whether the **Product** is **available or not without restriction**.

4. At least six months before the expiry of a period of ten years counted from the date of signature of **this Agreement** and, thereafter, six months before the expiry of subsequent periods of five years, the **Recipient** may notify the **Governing Body** of his decision to opt out from the application of this Article as of the end of any of those periods. In the case the **Recipient** has entered into other Standard Material Transfer Agreements, the ten years period will commence on the date of signature of the first Standard Material Transfer Agreement where an option for this Article has been made.

5. Where the **Recipient** has entered or enters in the future into other Standard Material Transfer Agreements in relation to material belonging to the same crop[s], the **Recipient** shall only pay into the referred mechanism the percentage of sales as determined in accordance with this Article or the same Article of any other Standard Material Transfer Agreement. No cumulative payments will be required.

Annex 4

OPTION FOR CROP-BASED PAYMENTS UNDER THE ALTERNATIVE PAYMENTS SCHEME UNDER ARTICLE 6.11 OF THIS AGREEMENT

I (*full name of **Recipient** or **Recipient's** authorised official*) declare to opt for payment in accordance with Article 6.11 of **this Agreement**.

Signature..... Date.....[8]

[8] In accordance with Article 6.11h of the Standard Material Transfer Agreement, the option for this modality of payment will become operative only once notification has been provided by the **Recipient** to the **Governing Body**. The signed declaration opting for this modality of payment must be sent by the **Recipient** to the **Governing Body** at the following address, whichever method of acceptance of **this Agreement** (signature, shrink-wrap or click-wrap) has been chosen by the parties to **this Agreement**, and whether or not the **Recipient** has already indicated his acceptance of this option in accepting **this Agreement** itself:

The Secretary,
International Treaty on Plant Genetic Resources for Food and Agriculture
Food and Agriculture Organization of the United Nations
I-00100 Rome, Italy

The signed declaration must be accompanied by the following:

- The date on which **this Agreement** was entered into;
- The name and address of the **Recipient** and of the **Provider**;
- A copy of Annex 1 to **this Agreement**.

Checklist for the implementation of the AEGIS Memorandum of Understanding (MoU) at national level

Signature of the MoU

1. Country is **member of ECPGR.**
2. Country is **Party to the Treaty** or is otherwise willing to make plant genetic resources for food and agriculture under its jurisdiction available under the conditions of the Treaty.
3. For the purposes of this MoU, country identifies the Government official or person or public entity representing the country, which has been appointed by its Government. The level at which the MoU should be signed, should be adequate to carry the commitment of the Government for the establishment of AEGIS and the fulfillment of the responsibilities set out in the MoU.
4. A true copy of the MoU is signed and returned to Bioversity International and/or the original can be signed at any time by a duly authorized official at the Headquarters of Bioversity International.

Establishment of Associate Members Agreements

1. Government **extends the mandate** of the ECPGR National Coordinator to act also as National Coordinator for AEGIS at the national level, and provides appropriate support.
2. **National coordinator identifies and encourages** appropriate public, private and civil society institutions located within the country, to become **Associate Members of AEGIS.**
3. **Associate Membership Agreements** are established between the National Coordinator and Associate Members in the form set out in the Annex to the Memorandum of Understanding. Each signed AEGIS - Associate Membership Agreement is deposited with the National Coordinator and a copy is sent to the Director General of Bioversity International.

Designation of accessions to be registered for the European Collection

1. National Coordinator **promotes and coordinates with the Associate Members** concerned the designation of European Accessions.
2. Associate members**, in consultation with the National ECPGR Coordinator, identify, from among the accessions** they hold, those accessions that are free from any third party obligations or restrictions and meet the selection requirements adopted by the ECPGR Steering Committee, to be proposed for registration as **European Accessions**.
3. National Coordinator, **in consultation with the Associate Members, proposes** to the ECPGR Crop Working Groups/Networks, through the ECPGR Secretariat, **lists of accessions for registration** as **European Accessions**. The discretion to propose accessions lies with the individual member of AEGIS; accessions must meet the selection requirements adopted

by the ECPGR Steering Committee and be **free from any third party obligations** or restrictions.

4. National Coordinator, after considering the recommendations by the ECPGR Crop Working Groups/Networks, ensures that **accessions are registered as European Accessions,** notifying such European Accessions to the European Plant Genetic Resources Search Catalogue (EURISCO), through the National Inventory System.

Management of the European Collection

1. National Coordinator **serves as the focal point** for interactions with the ECPGR Crop Working Groups/Networks and for the implementation of the Crop Conservation Work Plans within his/her country with the participating institutions.
2. National Coordinator **promotes and coordinates with the Associate Members concerned the development and management of the European Collection.**
3. Associate Members **ensure the long-term conservation** of their **European Accessions** according to agreed minimum standards.
4. Associate Members may participate in and / or facilitate **supporting activities** such as regeneration, viability testing and others organized by the respective ECPGR Crop Working Group for the crop/species in question.
5. Associate Members ensure as soon as possible **safety-duplication of their European Accessions** in agreed conditions, under black-box arrangements as appropriate, at another Associate Member genebank, possibly in a different country, and/or at the Svalbard Global Seed Vault.
6. Associate Members **record public domain accession-level information** through the National Inventory System and EURISCO, as well as make available non-confidential characterization and evaluation data through the relevant ECPGR Central Crop Database (ECCDB) or such other system as may eventually be developed for this purpose.
7. Associate Members **facilitate access to and availability of their European Accessions** and related information, using the Standard Material Transfer Agreement (SMTA) for Annex I crops and the same terms and conditions for non-Annex I crops (for purposes of research, breeding and training for food and agriculture) with the explanatory note, as agreed upon by the ECPGR Steering Committee.
8. Associate Members **provide and/or manage,** in accordance with AEGIS approved standards, **such conservation related services as the Associate Member may offer**.

Responsibilities of the ECPGR National Coordinator as a member of the ECPGR Steering Committee

1. Contribute to **oversee the operation of AEGIS**, to approve the administrative budget of AEGIS, and to promote the mobilization of the funds required.
2. Approve the contents of the **Crop Conservation Work Plans**, and oversee their implementation. See that the work plans can be implemented for the part where they rely on national activities.

3. **Adopt minimum agreed standards** for the management of the European Collection on a crop gene pool specific basis.

Responsibilities of the members of the ECPGR Working Groups/Network Coordinating Groups

1. Based on the nomination by the respective National Coordinator, **serve as delegate representative(s) of their country** for the specific crop conservation, documentation and coordination activities that are agreed by each specific ECPGR Working Group/ Network Coordinating Group.
2. Contribute to the adoption of **crop-specific criteria** for the selection of accessions to be proposed for registration as European accessions.
3. Contribute to help **identifying and making recommendations** to the participating countries regarding the accessions proposed for **registration as European Accessions**. It is recommended that the selection of MAAs be made in such a way that the list of MAAs will evolve over the years rather then to try to produce a "final list" at once. This means that "only" accessions that are of a known origin to a given country or that have been bred/created in a given country will be accepted as "genetically unique". Gradually, more accessions will be considered and added to the list if they have been "proven" as genetically unique.
4. Contribute to prepare and coordinate the implementation of **Crop Conservation Work Plans**.
5. Contribute to **propose minimum agreed standards** for the management of the European Collection on a crop genepool specific basis for adoption by the ECPGR Steering Committee.
6. Contribute to organize and implement a **reporting and monitoring system** at the crop level, related to the quality of the European collection (AQUAS).

Annex 3 of EU Submission on sectoral and cross-sectoral model contractual clauses for mutually agreed terms and existing guidelines and codes of conduct related to access and benefit-sharing; and measures to raise awareness of access and benefit-sharing

Report of the International Technical Expert Workshop

Exploring the need for specific measures for Access and Benefit-Sharing (ABS) of Animal Genetic Resources for Food and Agriculture (AnGRFA)

For reasons of efficiency, this report is written by the organizers who take full responsibility for its contents. Whereas the authors have taken every effort to produce an accurate and objective report accommodating all views expressed, it cannot be assumed that all participants fully agree with the entire text of this report.
Sipke Joost Hiemstra, Bert Visser and Kor Oldenbroek

Summary

The adoption and the subsequent need for implementation of the Nagoya Protocol on Access and Benefit-Sharing (ABS), which forms a major component of the international regime on ABS, provides options for specialized international agreements for specific genetic resources (see Article 3bis). Animal Genetic Resources for Food and Agriculture (AnGRFA) exhibit specific features and might thus qualify for a specialized international agreement. Such recognition raises the question *which* specific policies and measures might be developed for AnGRFA. Participants in an international technical expert workshop[1] evaluated specific characteristics and exchange patterns of AnGRFA, and discussed which type(s) of specialized international instrument(s) would be needed to support conservation and sustainable use of AnGRFA.

Globally, both within- and between-breed genetic variation is under threat, while this variation is important for (future) selection programs. Few wild relatives exist which are relevant for animal breeding. Conservation of AnGRFA is an expensive and complex operation. Therefore, conservation by utilization is considered to be an important strategy for AnGRFA.

AnGRFA are mainly under private control and ownership and currently the exchange of AnGRFA is mainly regulated by the transfer of private ownership (by contracts under private law and agreements under customary law) and is strictly controlled and often limited by zoo-sanitary regulations. Most exchanges take place between developed countries. Less frequent is the exchange between developing countries and from developed countries to developing countries. Exchanges from developing countries to developed countries are rare. This implies that the availability of benefit sharing funds, generated through access provided to developed countries, will not accrue substantial benefits to support conservation in developing countries.

Workshop participants considered the costs of developing a specialized, legally binding instrument for AnGRFA to be high in comparison with the

[1] The International Technical Expert Workshop Exploring the Need for Specific Measures on Access and Benefit Sharing in Animal Genetic Resources for Food and Agriculture, held in Wageningen, 8 – 10 December, 2010

expected benefits. Therefore, they recommended that the FAO Commission on Genetic Resources for Food and Agriculture should focus on: the implementation of the Global Plan of Action for AnGRFA to obtain substantial funds for capacity building and to support conservation of AnGRFA in developing countries and countries in transition. Within the framework of the Global Plan of Action it may be considered to develop specific international agreements, such as guidelines for international exchange (including genetic impact assessments) and model Material Transfer Agreements for AnGRFA, in the framework of the Nagoya Protocol, for implementation at the national level, in order to contribute to the conservation and to promote the utilziation of AnGRFA.

Workshop background and objectives

In October 2010, a legally binding protocol on Access and Benefit-Sharing (ABS) was successfully negotiated by the 10th Conference of the Parties to the Convention on Biological Diversity (CBD), the Nagoya Protocol[2]. This Protocol provides a framework for all types of genetic resources, including Animal Genetic Resources for Food and Agriculture (AnGRFA). At its 11th Regular Session, the FAO Commission on Genetic Resources for Food and Agriculture (CGRFA) agreed also on the importance of ABS in relation to all components of biodiversity for food and agriculture, and included work in this field in its Multi-Year Programme of Work (MYPoW). Accordingly, the CGRFA decided to consider arrangements and policies for ABS at its 12th Regular Session (October 2009). To facilitate discussions and debate on ABS at the 12th Regular Session, the Secretariat of the Commission had commissioned several background study papers on use and exchange patterns of genetic resources in the different sectors of food and agriculture and organised a Special Event to discuss these papers immediately prior to this session.

The participants in the Special Event made the observation that it is important not only to claim a special nature of genetic resources for food and agriculture (GRFA) but also to develop and suggest specialized measures warranted by such special nature, if appropriate. In discussing such measures it might be important to take into consideration similarities and differences between different types of GRFA. Compared to other types of GRFA, AnGRFA exhibit some specific characteristics that distinguish them from other GRFA. In the light of further development and implementation of the international regime on ABS and taking into account the Nagoya Protocol, the question was raised *which* specific policies and measures for AnGRFA would be needed to implement the ABS provisions of the CBD and contribute to the international regime that would also effectively support the conservation and sustainable use of AnGRFA.

In this context, the Centre for Genetic Resources, the Netherlands (CGN) of Wageningen University and Research Centre, organized an International Technical Expert Workshop. The workshop was sponsored by the Ministry of Economic Affairs, Agriculture and Innovation of the Netherlands, the Norwegian Ministry for Agriculture and Food, and the Federal Office for Agriculture of Switzerland. The workshop addressed the following main questions:

- What makes Animal Genetic Resources special?
- How does the exchange of Animal Genetic Resources work?
- Which measures on Access and Benefit Sharing are needed to conserve and promote the use of Animal Genetic Resources?

Workshop programme and participants

The Workshop was held in Wageningen, the Netherlands, from 8-10 December 2010. The 60 participants[3] originated from all regions and reflected a wide

[2] 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.

[3] The following persons participated in the workshop and were invited as experts: Teresa Aguero Teare, Paolo Ajmone Marsan, Johan van Arendonk, Workneh Ayalew Kebede, Frank Begemann, Susette Biber-Klemm, Harvey Blackburn, Elli Broxham, Uday Chandra Thakur, Leontine Crisson, Carlos Correa, Kusuma Diwyanto, Tashi Yangzome Dorji, Adam Drucker, Grethe-Helen Evjen, Jianlin Han, Sipke Joost Hiemstra, Irene Hoffmann, Sukhbaatar Jigiidpurev, Pieter Knap, Ilse Köhler-Rollefson, Vanida Khumnirdpetch, Catherine Marguerat, Asko Mäki-Tanila, Arthur Mariante, Elzbieta Martyniuk, Tri

geographic coverage. Furthermore, all sectors (policy, research, breeding, *in situ* and *ex situ* conservation) were represented. A large majority of participants had a direct professional involvement with AnGRFA. Participants were exclusively invited as experts in their field.

After the opening address by the rector of Wageningen University and Research Centre, the morning session of the first day dealt with "The context for the development of AnGR specific ABS measures". The afternoon of the first day discussed "The current international exchange of AnGR – facts and perspectives". The morning session of the second day explored the theme "Characteristics of specific measures: full and minimum approaches", followed by group discussions and reporting in the afternoon session. Conclusions were drawn during the last day in a plenary morning session.

Current international legal framework for the exchange of AnGRFA

Although also not designed specifically for AnGRFA, a number of international legally binding agreements bear on the exchange and conservation of AnGRFA. The Nagoya Protocol provides an international framework for ABS on genetic resources, including for AnGRFA. The workshop participants recognized that the Protocol allows for specialised international agreements for specific genetic resources. Workshop participants recognized other international agreements with a general scope that may also have an impact on the international exchange and conservation of AnGRFA, including the SPS and TRIPS agreements of the World Trade Organization WTO and various treaties under the World International Patent Organization.

Currently, the exchange of AnGRFA is mainly regulated by the transfer of private ownership (by contracts under private law and agreements under customary law) and is in particular influenced by zoo-sanitary regulations. As the implementation of regulations on intellectual property rights and on sanitary issues advance further, these may have an increasingly significant impact on AnGRFA exchange, use and conservation.

Characteristics of AnGRFA

Workshop participants identified the main characteristics distinguishing AnGRFA from other types of genetic resources and discussed these characteristics in detail. The discussions on these main characterstics are presented below.

Consensus existed that global AnGRFA diversity is under pressure. The participants noted that the existence of threats to AnGR is generally accepted, but that debate remains about the nature and severity of genetic erosion. The loss of breeds is only one indicator for the loss of farm animal genetic diversity, since a major part of genetic diversity is found within breeds and significant genetic overlap between breeds, nationally and internationally, occurs.

The global livestock sector is an important contributor to economic development and food security. Whereas public investments in the livestock

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Mastuti, Vera Matlova, Jan Merks, Carlos Mezzadra, Gerald Moore, Javad Mozafari, Benson Mwenya, Anne-Marie Neeteson, Chanda Nimbkar, Cleopas Okore, Kor Oldenbroek, Albert Paszek, Yves Plante, Francois Pythoud, Adrian Raymond, Sabine Reist, Gabriel Rovere, Nina Saether, Marie Schloen, Bhola Shrestha, Jayant Singh, Hans Smolders, Hans Stalhammer, Michelangelo Temmermann, Kim Anh Tempelman, Misikiri Tessema, Markos Tibbo, William Vivanco Mackie, Morten Walloe Tvedt, Bert Visser, Eric Welch.

sector in developing countries are usually found to be inadequate and breeding programs may even be non-existent, globally the organization of poultry, pig and cattle breeding is increasingly concentrated in a few international breeding corporations.

Selection programs for farm animal improvement are incremental and make use of within and between breed variation. Many species have long generation intervals and low regeneration rates. Few wild relatives exist which are relevant for animal breeding, and – compared to Plant Genetic Resources for Food and Agriculture (PGRFA) – conservation is an expensive and complex operation. Conservation by utilization is considered as an important strategy for AnGRFA.

By focusing largely on direct output functions (e.g. production of milk, meat or eggs), the importance of AnGR conservation is likely to be consistently undervalued. Current economic decisions are largely based on *direct use values* of AnGRFA, although *indirect use values, options values, bequest values* and *existence values* may be of equal or greater importance in the context of biodiversity and genetic resources conservation. Not all *values* of AnGRFA are taken into account in market prices, and therefore accrued benefits do not address and support all these values of AnGRFA.

Although historical exchange patterns illustrate the interdependence between countries and regions, a characteristic that is similar to that of PGRFA, unlike for PGRFA there have been very limited flows of AnGRFA from South to North. However, exchange of improved breeding materials between OECD countries and from OECD countries to developing countries contributes substantially to global development of the livestock sector.

Individual animals embodying AnGRFA are in general privately owned, and individual breeding animals exhibit a high value. AnGRFA are mainly under private control and ownership, and cannot generally be considered to be in the public domain. Commercial breeders often protect their investments through 'staying ahead' of competitors and by physically controlling the use of their most valuable breeding animals. Exchange of AnGR between private parties occurs to a large extent under private law agreements. In communal systems, sharing breeding animals is regulated by communal rules. Ownership of an animal or germplasm includes in principle the license to use and sell. At the same time, implementation of the Nagoya protocol, and increasing use of IPR protection (e.g. patents) may have an increasing impact on the (future) exchange of AnGRFA.

Finally, AnGRFA can be characterized as being more closely related to human biology and culture compared to other genetic resources for food and agriculture. This notion in particular illustrates the need to take into account the '*total economic value*' of ANGRFA in further development of policies and regulations.

Recent, current and future exchanges of AnGR

The workshop revisited exchange patterns and this chapter presents some major features.

Substantial exchange of genetic material between developed countries (North to North) occurs, but moreover high performing breeding stock is increasingly exported from North to South, driven by globalization. South to South exchanges have also been extensive and important for livestock

development. However, such exchanges have generally been far less well documented than North-North exchanges. Movements of livestock germplasm from South to North have been rare in the past century, and in most cases the economic benefits of these exchanges to both North and South have been relatively small. This is in contrast to PGRFA, where South to North flows are more prominent.

At first sight, international exchange and use of AnGR might seem to occur relatively unhampered, and without strong government policy interference with the exception of veterinary protection measures. North-North and North-South exchange involves commercial breeds and transfer is rather open. Most international exchange consists of commercial transactions. Basic scientific research is largely carried out in the public domain, whereas companies protect their knowledge generated in more applied research and breeding.

Transfer of improved AnGRFA to the South may result in replacement of local breeds. Sometimes, commercial breeding material is used in environmental conditions to which the animals are not adapted. Farming systems in the South may not be adequate to accommodate the transferred animals with poor adaptation. Sustainability of introduced international breeds is often low. The main reasons for the promoted global use of poorly adapted high-external input breeds are exerted commercial pressure and flaws in decision-making processes at the national and/or breeder levels. Carrying out genetic impact assessments before introduction of improved or exotic genetic material can be considered useful, but so far this tool is not commonly used.

In the context of North-South transfers, information exchange, technology transfer and capacity building are often poorly addressed. As a result, an important reason for the productivity gap between commercial breeding material and local AnGRFA in the South is the lack of breeding capacity, resources, efforts and genetic improvement schemes for local AnGRFA.

South-South exchange is partially poorly documented, but is substantial and has been important in the past. Some limitations to exchanges based on export regulations have been reported.

There is little or no demand in the North for breeding animals or specific (adaptive) traits from the South. The few examples of introduction of breeds from the South into breeding programs in the North have illustrated the difficulty of (large-scale) commercialization of South-North transfer. Some workshop participants pointed at the low success rate of introduction of breeds from the South into breeding programs in the North, suggesting that such introductions had often not been cost-effective and had not generated revenues.

Stakeholder views on fair and equitable exchange

In the workshop views from the different sectors were highlighted.

Participants from the livestock breeding industry indicated that the majority of trade in breeding stock consists of exchange between developed countries. The interaction between genotype and environment is considered as a serious challenge in the case of export from developed countries to developing countries or countries in transition. In developed countries on the one hand, well-functioning recording schemes are present for most traits of economic importance, which is often lacking in developing countries on the other hand, whereas this capacity can be considered as one of the critical factors for the commercial success of international breeds. Participants from the breeding

industry emphasized that their breeding programs are not dependent on introduction of new genes from the South. Genetic improvement programs are largely based on selection within breeding populations. Breeding objectives continuously develop and the breeding industry stresses that existing stocks offer sufficient diversity to attain changing breeding objectives and to produce breeding stock for different production environments. They repeated that only a few examples of successful and commercially viable introductions of developing country germplasm into Northern breeding programs had occurred. Much faster and better results may be expected from 'genomic selection' making use of proper recording of relevant economic and functional traits in different environments.

For the global research community facilitated exchange of research material between countries appeared to be very important. For example, recent scientific research on global farm animal genetic diversity resulted in a much better understanding of the origin and routes of dispersal of biodiversity. Researchers made a plea for the establishment of clear exchange procedures for research materials, including through the use of a model or standard Material Transfer Agreement.

Non-governmental organizations stressed that the global AnGR community should not leave the interests of indigenous and local communities unattended. The need for implementation of 'livestock keepers' rights' was emphasized, and the concept of 'biocultural protocols' were promoted since these protect traditional patterns of AnGR management as well as the ecosystems in which they function.

Presentations on government perspectives illustrated that the potential development of specific ABS measures for AnGRFA often requires further consultation of various national stakeholders and an analysis of specific national needs. It was also mentioned that a very limited number of countries (if any) have implemented specific ABS-related regulations for AnGRFA.

Main issues and type of ABS measures desirable for AnGRFA

Issues associated with the development of AnGRFA-specific ABS measures were discussed during the workshop, taking into account the specific characteristics of AnGRFA and the need to further promote conservation, sustainable use, and fair and equitable benefit-sharing of AnGRFA. Below these issues are highlighted.

1. <u>The limited options for generation of benefits from AnGRFA use, as opposed to the need to support conservation.</u> The volume of South–North exchange of AnGRFA is low, in particular in comparison to other types of genetic resources for food and agriculture. This means that South-North exchange can only generate limited benefits for the purpose of conservation of local genetic diversity and for poor livestock keepers in developing countries. It seemed doubtful indeed that sufficient revenues could be acquired through "classical benefit-sharing mechanisms" to have any substantial impact on conservation, and to contribute substantially to the improvement of food security in the long run. On the contrary, most of the benefits are generated through North-North, North-South of South-South exchange, both on the user side and the provider side, in other words for seller and buyer.

However, negative impacts on genetic diversity as a result of hybridization or replacement have also been associated with current exchange practices, and it

was argued that governments or other stakeholders should carry out 'genetic impact assessments' before introducing improved, exotic breeding material.

The limited options for benefit-sharing through direct use should justify alternative measures to raise funds to support conservation. Several suggestions were made by workshop participants to generate funding and human capacity to directly support conservation and breeding in developing countries and countries in transition. Options mentioned were i) 'public-private partnerships in establishing local breeding programs', ii) a 'tax on international exchange' and foreign introductions and iii) the development of regional and global strategies to also establish a multilateral pool of AnGRFA.

2. The need to use the *Global Plan of Action for AnGRFA* as a proper framework to deal with the main issues of AnGRFA conservation and use. The workshop participants stressed the importance of the Global Plan of Action. In recognition of the need to develop an effective framework for the management of AnGRFA, and to address the threat of genetic erosion, 109 countries came together in Interlaken, Switzerland in September 2007 for the first International Technical Conference on Animal Genetic Resources for Food and Agriculture. The Conference adopted the FAO Global Plan of Action for Animal Genetic Resources for Food and Agricuture, which includes 23 strategic priorities for action to promote the effective management of these vital resources. The Global Plan of Action is in turn based on the *FAO State of the World's Animal Genetic Resources for Food and Agriculture*, the first comprehensive global assessment of livestock diversity and its management. The Conference also adopted the *Interlaken Declaration on Animal Genetic Resources*, which affirms countries' commitment to the implementation of the Global Plan of Action and to ensuring that the world's livestock biodiversity is utilized to promote global food security and will remain available to future generations. Furthermore, the Commission on Genetic Resources for Food and Agriculture (CGRFA), at its 12th Regular Session, adopted the Funding Strategy for the implementation of the *Global Plan of Action* for Animal Genetic Resources and requested FAO to implement it and to establish a FAO Trust Account for this purpose. A first call for proposals to support the implementation of the Global Plan of Action in developing countries and countries in transition is expected after the 13th session of the CGRFA.

The workshop participants agreed that the *Global Plan of Action* offers a proper framework for conservation and breed development needs, as well as efforts to address food security, and the Funding Strategy may offer the necessary means to support the development of conservation and utilization activities financially. For the workshop participants, implementation of the Global Plan of Action seemed to be more (cost-)effective than the development of completely new (legally binding) instruments.

3. The advantages and drawbacks of negotiating a legally binding instrument for AnGRFA is not a first choice. After the successful negotiation of the Nagoya Protocol on ABS, countries will have to implement the Nagoya Protocol. Some participants considered that in order to avoid possible negative effects of the implementation of the Nagoya Protocol for AnGR exchange, conservation and sustainable use, some countries may promote the development of specific international legally binding ABS measures for the exchange of AnGRFA, comparable to the International Treaty for Plant Genetic Resources (PGRFA). However, the participants felt strongly that it might be better to promote conservation and sustainable use within the framework of the Global Plan of Action, and to develop specific voluntary instruments for AnGRFA where felt necessary. This position was motivated by i) significant biological, technical

and institutional differences between PGRFA and AnGRFA, ii) the relatively limited number of problems related to ABS, and iii) the large investments that would be needed to negotiate an international legally binding agreement. It was also argued that the need for specific ABS measures for AnGRFA did not justify the development of an "International Treaty on AnGRFA", although promoting conservation and sustainable use of AnGRFA were regarded crucial issues to tackle.

4. The need to develop voluntary instruments. Three types of voluntary instruments were identified for ABS related to AnGRFA. First, it was suggested to develop guidelines which would be a the disposal of national governments in developing measures applying to the international exchange of AnGRFA at the national level. Such guidelines might provide suggestions to adapt national ABS legislation in such a way that these would serve the specific needs and characteristics of the different sectors. The FAO CGRFA may undertake the effort to develop guidelines for all GRFA in general or specific guidelines related to AnGRFA in particular. Second, there is a need for the harmonization of contracts overseeing international exchanges and for the further development of model Material Transfer Agreements or model contract clauses allowing the exchange of AnGRFA. Such efforts should build on existing instruments and practices (e.g. the Standard MTA of the International Treaty on PGRFA) and should facilitate and promote a fair and equitable exchange of AnGRFA. Third, it was suggested to carry out further work in developing and implementing Biocultural Community Protocols, where also Livestock Keepers' Rights issues should be better addressed.

5. The need for measures to facilitate more North-South collaboration towards capacity building. As already reflected in Priority Area 4 of the FAO Global Plan of Action for AnGRFA, there is a strong need for capacity building, in particular in developing countries, for the purpose of conserving and utilizing AnGRFA. In this context it was recalled that the voluntary Bonn Guidelines on ABS already mentioned the options for both monetary and non-monetary benefit-sharing. Given the specific characteristics of AnGRFA, the interdependence between regions and countries, and the specific global exchange patterns, mechanisms should be developed to better facilitate capacity building in developing countries, as a non-monetary form of benefit-sharing.

Many different options for capacity building were mentioned, including joint research activities, training and education programs, and public-private partnerships with the simultaneous aims to increase livestock productivity and to better conserve livestock genetic diversity. Workshop participants generally felt that non-monetary benefits would probably be much more rewarding, but this would certainly require further coordination at global level.

Required next steps

Suggestions were made how to proceed after the Wageningen workshop. Workshop participants discussed options to proceed with the outcomes of the workshop. It was noted that a need existed to properly analyze the Nagoya Protocol on its possible consequences for the management of AnGRFA. It was also noted that the Nagoya Protocol provides options for development of sectoral measures and that the Protocol contains sufficient flexibility for developing AnGR adapted solutions. Furthermore, it was noted that implementation of the Nagoya Protocol is a national responsibility of countries that ratify the Protocol.

Participants noted that the Nagoya Protocol will also apply to the exchange of AnGRFA unless other more specific legally binding instruments would be adopted. Future monitoring of the implementation of the Nagoya Protocol would allow informed decision-making on the need to develop specific international instruments for AnGRFA, legally binding or not.

Participants decided that the conclusions of the Wageningen workshop would be submitted to the FAO CGRFA, including the advice to develop guidelines and other voluntary instruments under the guidance of the CGRFA, elaborated by the Commission's Intergovernmental Technical Working Group on Animal Genetic Resources. It was also considered that the CGRFA may wish to collaborate with the Intergovernmental Committee for the Nagoya Protocol, in which case the CGRFA might propose to this Intergovernmental Committee to recognize the guidelines or other instruments developed within the framework of FAO, so that these would become part of the international regime on Access and Benefit-Sharing. Finally, the workshop participants considered that adoption of such instrument by the Conference of the Parties to the Protocol would imply that the particular guideline or instrument involved would be recommended for use at the implementation of the Nagoya Protocol at the national level for the purpose of securing conservation, utilization and exchange of AnGRFA.

Bibliography

Detailed information on the contributions presented by the experts can be sourced at the website of the Centre for Genetic Resources, the Netherlands (CGN) under the following hyperlink: http://www.cgn.wur.nl/UK/

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