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COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

TEAM OF TECHNICAL AND LEGAL EXPERTS ON ACCESS AND BENEFIT-SHARING

First Session

Rome, 8 – 10 July 2014

SUBMISSIONS OF STAKEHOLDERS ON VOLUNTARY CODES OF CONDUCT, GUIDELINES AND BEST PRACTICES AND/OR STANDARDS IN RELATION TO ACCESS AND BENEFIT-SHARING FOR ALL SUBSECTORS OF GENETIC RESOURCES FOR FOOD AND AGRICULTURE

The Commission, at its Fourteenth Regular Session, requested its Secretary to invite stakeholder groups to report on voluntary codes of conduct, guidelines and best practices, and/or standards in relation to access and benefit-sharing for all subsectors of genetic resources for food and agriculture, and to compile them for consideration by the intergovernmental technical working groups and for review by the Commission at its Fifteenth Regular Session, while acknowledging that voluntary measures should not undermine legally binding provisions developed as part of domestic legislative, administrative or policy measures.[1]

By notification of 5 February 2014, the Secretary invited stakeholder groups to report on voluntary codes of conduct, guidelines and best practices, and/ or standards in relation to access and benefit-sharing for all subsectors of genetic resources for food and agriculture. Stakeholders were also requested to point out model contractual clauses used in specific subsectors of genetic resources for food and agriculture.

This document contains the submissions in the language in which they were received. It should be noted that similar information has been gathered by the Secretariat of the Convention on Biological Diversity (SCBD) and made available to the third session of the Open-ended Ad Hoc Intergovernmental Committee for the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (24-28 February 2014).[2]

[1] CGRFA-14/13/Report, paragraph 40.ix.

[2] Information and Views on the Development, Updating and Use of Sectoral and Cross-Sectoral Model Contractual Clauses, Voluntary Codes of Conduct, Guidelines, Best Practices and Standards (UNEP/CBD/ICNP/3/10): www.cbd.int/doc/meetings/abs/icnp-03/official/icnp-03-10-en.pdf and www.cbd.int/icnp3/submissions/

SUBMISSIONS

CHINA

Principals, Guidelines, Best Practices and Standards in Relation to Access and Benefit-sharing for Crop genetic resources in China

The National Conservation Centre for Crop Germplasm Resources is responsible for conservation and distribution of crop germplasm resources in China. The Centre is operated by the Institute of Crop Science of Chinese Academy of Agricultural Sciences (CAAS) with support from the Chinese Government, particularly the Ministry of Agriculture. The Centre is composed of 1 national long-term genebank, 10 national mid-term genebanks and 43 field genebanks which have the responsibilities of distributing germplasm to different users from domestic and foreign organization. In last 20 years, the Centre has made great efforts to promote the access and benefit sharing of crop germplasm resources conserved in its genebanks. These include developing guidelines for accessing genebanks, standards for promoting accessibility, activities linking genebank curators to users. With the governmental support, the Centre has multiplied over 300,000 accessions to increase the amount of seeds available for access.

I. The general principles related to the access and benefit sharing

In practice, it follows some general principles in access and benefit sharing of crop germplasm resources in China as follows:

- The activities on access and benefit sharing of crop germplasm resources conserved in national genebanks should be supported by the government
- The ownership of crop germplasm resources should be recognized when considering benefit sharing
- The access could be improved with the implementing the benefit sharing.

II. The guidelines related to access and benefit-sharing for crop genetic resources

There are no formally released guidelines for the access and benefit sharing of crop germplasm resources in China. However, the National Conservation Centre for Crop Germplasm Resources at CAAS has implemented some practical measures on access to germplasm resources conserved in its mid-term genebanks, which could play a similar roles as a guidelines. The purpose of these practical measures is to provide relevant information on the procedures to obtain germplasm from the genebanks and responsibilities for both germplasm provider and user. It contains the following components:

1. Management Group

The Group is set up at the Institute of Crop Science of CAAS and is responsible for management of germplasm distribution under the leadership of Director General. The Group is composed of leaders of Conservation Centre and Curators of relevant crops. The Group has a Germplasm Distribution Office responsible for handling all requests of germplasm from users. All activities on access and benefit sharing of crop germplasm resources should be handled through the group.

2. Scope of crops for access

It covers the crops that germplasm have been multiplied under the financial support by Chinese Government. They include rice, wheat, soybean, maize, cotton, oil-crops, cowpea, pea, mungbean, adzuki bean, lentil, pigeon pea, common bean, multiflora bean, faba bean, chick pea, sword bean, lima bean Hyacinth bean, Yokohama bean, asparagus pea, lupine, sorghum, millet, barley, oat and buckwheat and their wild relatives etc.

3. Principles for the access

(1) Purpose of requesting for germplasm should accord with that defined in Administrative Measures of Crop Germplasm Resources issued by the Ministry of Agriculture.
(2) Users or suing organizations should be honest and have good credibility records.
(3) A reasonable number of accessions is requested for research purpose.
(4) The curator of each crop could provide if meeting above requests.

4. Procedures for the access

(1) To domestic users
   a) Users fill out the “Application Form of Access to Germplasmn (Table 1)” and “The List of Germplasm Requested (Table 2)”, which are endorsed with a seal by the affiliated organizations, and submitted to the Germplasm Distribution Office at the Institute of Crop Science of CAAS.
   b) The staff in the office fill out the “Seed-Taking Table (Table 3)” and obtain the approval from relevant curator and Management Group. If can’t meet the requests, the Office should response to requesters within a week.
   c) The Conservation Centre will provide the seeds to requesters within a week.
(2) To foreign users
   a) The requests will be handled by the Germplasm Introduction Office of the Institute of Crop Science of CAAS and approved by the Ministry of Agriculture.
   b) Once the requests were approved by the Ministry of Agriculture, it will follow the procedures as domestic users.

5. The operation mechanism for handling the access

(1) Information on germplasm for access will be made available through “National Information System of Crop Germplasm Resources”.
(2) The Curators are authorized by the Germplasm Distribution Office to review the “Application Form of Access to Germplasmn” and give comments. The Conservation Centre is responsible for preparing and delivering the seeds.
(3) The Germplasm Distribution Office will compile the requests from users and submit a summary report together with Application Form of Access to Germplasmn” and “The List of Germplasm Requested” to the Management Group.

6. Costs for distribution and operation.

(1) It should follow the general rules of the Administrative Measures of Crop Germplasm Resources issued by the Ministry of Agriculture.
(2) No costs will be charged if the requestors are the original providers of the accessions they requested.
(3) The packing and delivering costs should be covered by requesters.
(4) The costs of genebank operation should be supported by the Government.

Table 1 Application Form for Germplasm **Code:**

Name of requeste					
Organization					
Address					
Telephone			Postcode		
Email			Fax		
Crop name		Number of accessions		Number of seeds accession	
Purposes					

Note:

The requesters and their organizations should keep the following commit which is the prerequisites of access to germplasm:

1. Not to apply for new plant variety right and other IPRs on the original germplasm received from the Conservation Centre.
2. Not provide the germplasm received from the Conservation Centre to the third parties.
3. Agree to feedback with use information or provide assistance in compiling information on use of germplasm.
4. Agree to acknowledge the National Conservation Centre of Crop Germplasm Resources on the outputs and publications relevant to the use of germplasm received from the Centre.

Organization:

Authority signature:

Unit Seal Requester:

Date:

Table 2 List of Germplasm requested

Organization(seal): Date:

Name of Germplasm	Accessions number	Origin (organization)

The Centre also produced a reporting format for curators to report the status of utilization of germplasm distributed to receptors. The format contains the following components:

1) General description on the use of germplasm. This section covers the information the type, number, samples and receptors of germplasm distributed by the particular curators.

2) Outputs and benefits derived from the use of germplasm. The section provides the information on the lines, varieties, new materials, biotechnology involvement, protection environments, development and income generation, and social and economic benefits derived from the use of germplasm distributed from the curators of particular crops.

3) Existing issues and experiences in using germplasm from genebanks. This section should describe the problems and experiences in using germplasm including attention to the access and benefit sharing, management of the access and benefit sharing, understanding of germplasm, etc.

III. Standards related to the access and benefit-sharing for crop genetic resources

The standards are very important in facilitating the access and benefit sharing. With the support from Government, the National Conservation Centre of Crop Germplasm Resources has made efforts to develop the standards on data management in order to promote their accessibility. China has standardized descriptors for more than 110 crops. The standardized descriptors of each crop include following sections:

1) Principles and methods to be based

This section provides the information on the principles and roles used in developing the data standards and data quality controlling methods.

2) Simplified descriptor list.

This section provides a brief list of descriptors to be standardized.

3) Standards for descriptors

This section provide the standards for each descriptors used in observing and recording data of particular traits.

4) Standards for data management

This section defines the field names, types and states of each descriptors for computerization of the data.

5) Standards for data quality control

This section defines the techniques, methods used in ensuring the data quality.

IV. Best practice in relation to access and benefit-sharing for crop genetic resources

1. Establishment of National Platform of Plant Germplasm Resources

With the support of the Ministry of Science and Technology, a on-line national platform for access and benefit sharing of plant genetic resources has been established in 2008. It provides linkages to the available accessions of annual crops, perpetual crops, tropical crops, flowers, medicinal plants, forages and wild species. Users can view and search the germplasm they are interested and submit the order of germplasm through Internet. The platform is considered an effective channel for access to germplasm conserved in different genebanks.

2. The field demonstration of elite germplasm resources

For facilitating the availability of elite germplasm identified through characterization and evaluation, the curators of different crops（maize, wheat, rice, soybean, cotton, etc.）frequently conduct the field demonstration and organize field days inviting different users to visit the fields and select accessions they are interested. Through such way, the performance of germplasm in the fields can be directly seen by users and have become an important way to promote the accessibility and usability of the germplasm.

CUBA

CÓDIGOS VOLUNTARIOS PARA LA CONSERVACIÓN, MANEJO Y USO DE LOS RGAA en CUBA.

1. Las actividades sujetas a regulaciones solo se ejecutarán bajo los requisitos y autorizaciones que correspondan:

1.1 Colecta de RGAA en áreas que se autoricen y coordinen previamente con el MINAG, específicamente la Empresa Nacional para la Protección de la Flora y la Fauna (ENPFF); CITMA a través del Sistema Nacional de Áreas Protegidas (SNAP) y la Agencia de Medio Ambiente (AMA), MINFAR, y otras organizaciones relacionadas con la actividad agropecuaria como la ANAP.

1.2 El movimiento del germoplasma dentro y fuera del país, bajo las normas establecidas por Cuarentena Interior y Exterior respectivamente, pertenecientes al Centro Nacional de Sanidad Vegetal del MINAG; así como el Centro Nacional de Seguridad Biológica (CSB) y el Centro de Inspección y Control Ambiental (CICA), ambos del CITMA.

1.3 La producción de semillas de variedades mejoradas se realizará según los procedimientos establecidos por el Centro Nacional de Sanidad Vegetal y Centro Nacional de Seguridad Biológica (CSB).

1.4 La liberación, tanto para ensayos como para la producción de variedades transgénicas, deberá realizarse previa autorización del Centro Nacional de Seguridad Biológica del CITMA y el Centro Nacional de Sanidad Vegetal del MINAG.

2. Para las actividades de colecta auspiciadas por gobiernos o entidades extranjeras, se elaborarán convenios entre las partes para establecer los términos de exportación y uso del germoplasma colectado, así como la distribución de beneficios.

3. Durante las actividades de colecta y movimiento del germoplasma dentro y fuera del país, se deben observar las normas establecidas por la Cuarentena Interior y Exterior respectivamente, del MINAG y de Seguridad Biológica del CITMA.

4. Se organizarán alternativas diversas (Bancos de comunitarios o locales de “semillas”, jardines de variedades, árboles plus, entre otras), para proteger la diversidad localizada y conservada *in situ*, la que será duplicada en las colecciones nacionales *ex situ*, como respaldo ante diversas contingencias que atenten contra la conservación del patrimonio genético del país

5. Se facilitará la participación de los productores en la obtención de nuevas variedades más ajustadas a sus demandas locales, especialmente a partir de la diversidad conservada en las fincas, así como se organizarán intervenciones con ayuda para el ordenamiento de la conservación y la producción.

6. El acceso a los RGAA que integran las colecciones nacionales por otras instituciones del país, debe realizarse de forma clara y ordenada a partir de contratos de trabajo firmados por las instituciones correspondientes, donde se estipule la lista de materiales accesados y los beneficios que recibirá cada institución, con especial énfasis en el retorno a las colecciones, de la información obtenida durante la investigación (caracterización, evaluación y otros), de manera de añadir valor a las mismas. En tales relaciones contractuales, deben estar explicitados con claridad además, el uso que se le va a dar al germoplasma y los créditos pertinentes (definidos previamente en el documento) que se deben reconocer a las instituciones donantes.

7. El acceso a los RFAA que integran las colecciones nacionales, por personas naturales o jurídicas de otros países, debe hacerse siguiendo los procedimientos establecidos por los Acuerdos Normalizados de Transferencia de Materiales (ANTMs) del Tratado Internacional de los Recursos Fitogenéticos para la Alimentación y la Agricultura, para los cultivos que integran el Anexo I. En el caso de otros cultivos que no estén en tal Anexo pueden adoptarse los ANTM, si se desea o un acuerdo o contrato bilateral, siguiendo lo recomendado en los puntos 2,3 y 4.

8. El acceso a los recursos genéticos microbianos que integran las colecciones nacionales, por personas naturales o jurídicas, debe realizarse teniendo en cuenta los procedimientos establecidos, el tipo de riesgo del microorganismo implicado y las regulaciones nacionales e internacionales existentes.

9. El acceso de los campesinos a variedades mejoradas, especies forestales y otras variedades procedentes de Bancos de Germoplasma Nacionales e Internacionales (Fitomejoramiento Participativo),

debe realizarse de manera controlada y acompañado de un adecuado programa de educación ambiental y de concientización de los productores, en cuanto al peligro que entraña el posible abandono de sus variedades tradicionales a favor de las primeras, con la consecuente erosión genética de estos materiales. De igual forma, deberá tenerse en cuanta las legislaciones nacionales vigentes que refieren el acceso de los tenentes a los recursos existentes en el territorio que administran.

10. El acceso a los recursos zoogenéticos por personas naturales o jurídicas de otros países, debe hacerse siguiendo los procedimientos establecidos en los puntos 2 y 3.

11. La obtención de variedades mejoradas debe incorporar en lo posible, aún desde etapas tempranas la experiencia de los campesinos y sus demandas particulares en cada región.

12. La liberación de especies forestales, variedades mejoradas transgénicas o no, deberán realizarse de manera controlada y en el caso de las transgénicas previa autorización del Centro Nacional de Seguridad Biológica. Debe tenerse en cuenta la protección de aquellas regiones donde se acumula la máxima variabilidad tradicional del cultivo en cuestión, para evitar la erosión por la introgresión de genes extraños que provoquen un desbalance en el ecosistema.

13. La liberación de los recursos genéticos de origen microbiano deberá realizarse de manera controlada, una vez cumplidos todos los requerimientos establecidos para ello según las regulaciones elaboradas por las entidades nacionales e internacionales.

14. La protección de las variedades mejoradas y otras de mucho uso de acuerdo a las demandas de los agricultores y las comunidades, se realizará por las vías establecidas en el país, para la priorización de la producción de su semilla y su posterior utilización.

15. Deberá promoverse la protección de las variedades tradicionales de la erosión mediante su incorporación a un sistema de agricultura sostenible, dando acceso a los productores de los beneficios derivados de su uso, como forma de implementación de los derechos de los agricultores.

16. Deberá promoverse la protección de los conocimientos tradicionales campesinos, controlando de manera adecuada el acceso a ello e incorporándolos a un sistema de agricultura sostenible, como forma de implementación de los derechos de los agricultores.

17. Se reconocerá el aporte de las comunidades campesinas a la conservación y manejo de los RFAA, por diferentes vías alternativas, incluyendo estímulos morales y materiales, otorgándoles el registro de sus variedades tradicionales como forma de implementación de los derechos de los agricultores.

18. Se continuará promoviendo la participación de los agricultores en la toma de decisiones sobre la conservación, manejo y uso sostenible de los RFAA, por diferentes vías, como parte de la protección de sus derechos.

LISTADO DE ACRÓNIMOS:

ACRÓNIMO	DESCRIPCIÓN
RGAA	Recursos Genéticos para la Alimentación y la Agricultura
RFAA	Recursos Fitogenéticos para la Alimentación y la Agricultura
ENPFF	Empresa Nacional para la Protección de la Flora y la Fauna
MINAG	Ministerio de la Agricultura
CITMA	Ministerio de Ciencia, Tecnología y Medio Ambiente
SNAP	Sistema Nacional de Áreas Protegidas
AMA	Agencia de Medio Ambiente
MINFAR	Ministerio de las Fuerzas Armadas
CNSV	Centro Nacional de Sanidad Vegetal
ACPA	ONG Asociación Cubana de Producción Animal
ACTAF	ONG Asociación Cubana de Técnicos Agrícolas y Forestales
ANAP	ONG Asociación Nacional de Agricultores Pequeños
CSB	Centro Nacional de Seguridad Biológica
CICA	Centro de Inspección y Control Ambiental

DENMARK

Access and rights to forest genetic resources in the Nordic region Current situation and future perspectives

http://www.norden.org/en/publications/publikationer/2012-520
http://www.nordgen.org/ngdoc/forest/Publikasjoner/Report_ABS_ForestGR_2011.pdf

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TemaNord 2012:520

Summary
Continued flexible exchange of forest genetic resources (FGR) in the Nordic region is important for sustainable forest management and for climate change adaptation and mitigation. For this reason, a high level political initiative identified a need to clarify the legal status of FGR in the Nordic region. The overall aim of this study was to assess whether it is necessary and possible to take legal steps to ensure that FGR remain available for conservation and sustainable use in and between the Nordic countries. A survey of the present situation revealed that although the Nordic countries have different domestic legislation on access to FGR, it has not caused any hinders for exchange. Thus, *in effect* the situation is quite similar in the Nordic countries. As for the future, it is unlikely that application of patent law and plant variety protection (UPOV) will restrict exchange of FGR, mainly due to the short protection periods of these regulations relative to the long generation time of main forestry tree species. For short rotation tree species, intellectual property rights (IPR) might prove to be more applicable. Concerning international agreements, it is premature to evaluate the effect of the Nagoya Protocol (2010) on access and benefit sharing for FGR, as well as recent FAO initiatives. Based on the current study, no legal steps or action seem necessary. To promote continuing simple exchange of FGR the Nordic countries are recommended to stay involved in those processes where relevant international agreements are debated and developed, facilitate simple procedures for exchange and establish a mechanism for surveillance of biotechnological methods that might increase the use of private property rights on FGR.

GABON

Pour un accès et un partages équitables des avantages issus de l'utilisation durable des ressouces animales,nous préconisons:

- La mobilisation commune des ressources considérables nécessaires;
- L'utilisation plus large de la biodiversité des animaux;
- Aider les pays en développement et les institutions responsables de la gestion des ressources zoo génétiques à définir,mettre en oeuvre et reviser régulièrement leurs priorités nationales;
- Aider les éleveurs nomades et les agriculteurs sédentaires des pays en voie de développement à garantir leurs droits individuels,collectifs entérinés dans la législation nationale,d'accéder sans discrimination au matériel génétique,à l'information,aux technologies et aux ressources financières;
- Renforcer les programmes et les capacités institutionnelles des pays en développement et en transition;
- Faciliter les pays en développement et en transition pour une gestion raisonnée des ressources animales;
- Aider les pays dont le GABON à pouvoir élaborer des bonnes politiques en matière de conservation des races menacées;
- Aider les pays en développement et en transition à se doter des programmes de selections structurées,des politiques et dispositions légales nécessaires pour favoriser la gestion durables des ressources zoo génétiques;
- Fournir des intrants agricoles de qualités et des animaux à haut rendement économique aux éleveurs,selectionneurs et agriculteurs nomades et sédentaires des pays en développement;
- Aider les pays à pouvoir réaliser urgemment un inventaire et une caractérisation de leurs races et espèces animales locales.

Nous pensons que ce sont des normes qui permettrons à nos pays en développement et en transition de mieux gérer leurs ressources zoo génétiques et ,à partager de mniére équitables les avantages.Mais nous estimons que l'écart est encor trés grand entre les pays développés et ceux en voie,les pays du Nord tirent plus des avantages,sont subventionner.Donc ces derniers doivent mettre à disposition des moyens financiers,techniques,matériels à la disposition des pays en voie de développement et en transition afin in fine de mettre en oeuvre le plan d'action mondial.

NORWAY

Regarding voluntary practices and other standards and procedures related to access and benefit-sharing for the PGRFA subsector for Norway we can report as follows:

1. In general the ABS practices follows the obligations in ITPGRFA which was ratified in 2004. Further Norway ratified the Nagoya-protocol in 2013.

2. The Nature Diversity Act was implemented in 2009, see http://www.regjeringen.no/en/doc/laws/acts/nature-diversity-act.html?id=570549. The act includes separate paragraphs on ABS related to genetic resources (all sectors). A separate regulation on bioprospecting is under way and it will in more detail regulate ABS matters and traditional knowledge related to genetic resources (all sectors).

3. National acts on patents and on plant breeders rights includes provisions on disclosure of origin, which can be considered as a first step to keep records on whether genetic material in e.g. new plant varieties is acquired and used in accordance with ITPGRFA and the Nagoya-protocol.

4. Norway gives voluntary economical support to the Benefit Sharing Fund, a) a yearly contribution equal to 0,1% of national seed trade and b) a significant contribution of 40 mill NOK in 2013 partly financing the current third call for proposals under BSF.

5. Norwegian economical support to ABS capacity building in the GIZ project: ABS Capacity Development Initiative for Africa.

When it comes to voluntary practices and procedures (in practice Terms of Delivery, ToD) related to access and benefit-sharing for the AnGR subsector for Norway we have compiled extracts from the different ToD from the Norwegian breeding companies of cattle, pigs and sheep and some key elements from a sales contract from the poultry breeding industry, as provided below. Please note that the text below is an unauthorized English translation.

In the forest sector (FGR) in Norway there are no particular practices related to access and benefit-sharing in commercial trade of seeds and plants apart from the general terms of delivery. MTA's are highly relevant though, in case of future transfer of clonal material between breeding national programs. The use of "End User Declarations" are now introduced to make sure that valuable seed from orchards which are exported to nurseries producing plants for Norwegian customers on contract, is guaranteed to return for the Norwegian market.

Extracts from Terms of delivery for AnGR breeding material in Norway: cattle, pigs, sheep and poultry

(Unauthorized English translation)

DAIRY CATTLE, GENO

Terms of delivery for semen and embryo to members of Geno, 3/10-2010

(Geno is the breeding organization for Norwegian Red (NRF), the main dairy breed in Norway.)

Terms of delivery

(Unauthorized translation)

To assure that Geno's work on further developing the NRF-breed and to assure that this work benefits all members, the following terms of delivery apply for semen and embryo of NRF:

1. Semen and embryo delivered by Geno must not be disposed further.
2. Animals that are inseminated with NRF-semen must not be sold to parties that are conducting, or have the intention to conduct, activities that compete with Geno.
3. Offspring after insemination with semen or embryo from NRF, must only be used in own production or sold as part of domestic live cattle sale or by agreement with Geno.
4. If NRF-semen/embryo/animals are disposed in conflict with this clause, the person concerned loses its' right to buy semen or embryo of NRF.

Liability for compensation for use of wrong breed

If it is discovered that semen of wrong breed has been used, an abortion may be performed as soon as possible. Geno covers the costs for the abortion and new insemination. In addition the cost for delayed pregnancy is compensated with NOK 500. If the mistake is not discovered before after the calf is born, Geno will pay kr 500,- as an ex gratia payment of compensation for the mistake. In other respects, Geno disclaim any responsibility for the use of wrong bull within the same breed.

Original Norwegian text is found here:
http://www.geno.no/Forsiden/Semintjeneste/Leveringsbetingelser/

PIG BREEDING

While Norsvin is Norway's pig breeding organization, the cooperative slaughter house (Nortura) and the private slaughter houses respectively own the Duroc and Hampshire breed. Therefore, in Norway, pig producers who wish to use these breeds have to be a member of the relevant slaughter house entity to have access to the breeding material.

Copies of terms of deliveries and other documents from Norsvin

Terms of delivery for boar semen (Unauthorized translation)

The terms of delivery contains wording that secure Norsvin formal control with the breeding material originating from the semen business.

Terms of delivery for boar semen from Norsvin:

1. The terms of delivery cover semen delivered from Norsvin, either ordered at the Norsvin centre of or at one of Norsvin's semen depots.

   ...

   ...

   ...

8. In consideration to conserve Norsvin's development work within pig breeding and to assure that this development work benefits the community, the following delivery clause applies:
    a. Delivered semen must not be disposed further.
    b. if such is not in agreement with Norsvin.
    c. Offspring after insemination with identified semen can only be disposed as slaughtering pigs directly to the slaughter house or as piglets for producing slaughtering pigs. This is not applicable for Norsvin's breeding herds (elite herds and multiplier herds) where these conditions are regulated in other agreements.
9. If semen, animals or offspring are disposed further in contradiction to this clause, the receiver loses its' rights to request identified semen from Norsvin's semen station. Additionally the person concerned will not have the opportunity to buy pure bred animals from Norsvin's breeding herds.

Original text from http://norsvin.no/norsvin.no/Semin/Leveringsbetingelser/Leveringbetingelser-for-raanesaed in Norwegian. Only text found relevant for ABS relevant issues is translated.

Agreement on breeding cooperation for Norsvin's elite herds
(Unauthorized translation!)

Only the most relevant paragraphs are translated.

Medium: nn
(called the owner of the elite herd)

and Norsvin have made the following agreement for breeding cooperation:

1.0 PURPOSE

1.1 The purpose of this agreement, the elite herd system, is to ensure high genetic gain for the benefit of the community and ensure control over breeding material being created through Norsvin's breeding establishments.

1.2 This agreement is treated in Norsvin's Breeding Council and approved by the Norsvin Board.

4.0 Sale of breeding stock, embryo and semin

4.1 Without the consent of Norsvin, it is forbidden to sell breeding stock, embryos and semen from the herd other than to:

a) Breeding herds who has agreed breeding cooperation with Norsvin
b) pig producers in Norway, which do not sell breeding stock
c) Norsvin's testing stations
d) Norsvin's semen station
e) export initiatives organized through Norsvin or through Company / organization that is wholly or partly owned by Norsvin, or collaborate with Norsvin.

4.2 The owner of the elite herd is free with respect to selling animals or not
within what is described in Section 4.1. This does not point 2.4e concerning submission of test animals to to Norsvin's test herds.

Appendices to the Agreement on breeding cooperation
Regulations on the sale of livestock from Norsvin's breeding herds

(Unauthorized translation!)

General

- The elite herds shall have approved status as a seller of Norsvin's breeding livestock

- It is at all times the "Terms of delivery of pigs from Norsvin's elite herds" that is applicable on the sale of livestock . The terms are listed at the back of the animal's pedigree, and purchaser is made aware of these upon receipt of pedigree.

- A Norsvin pedigree should follow all breeding stocks/animals for sale.

- Only approved animals are sold as breeding stock. Purebred Landrace (L)/Large White (Y)/Duroc (D) animals for sale shall have estimated breeding values. Sale of young boars and sows should only occur in understanding with Norsvin .

- Sale of pure bred animals shall as far as possible follow existing agreements on fixed delivery of livestock (separate form) .

-

Pure bred animals with breeding values < 100 are sold without additional charge for extra quality. Pure bred animals with breeding values > 100 can be sold as breeding stock with an additional charge for extra quality in addition to current prices.

- All breeding stock should be sold without clear visible exterior mistake. Clear exterior error comprises :
- Inverted teats
- Extremely small inside hoof
- hernia
- Movement problems

Pigs with are clear signs of tremor should not be sold as breeding stock .

Sales of sows

- All breeding sows for sale must have at least 14 well-developed and well-placed teats .
- Sows sold, mated or not-mated, should be vaccinated against…..
- It will not be sold cross sows (LY-/LD-sows) from the herd.
  By exception to this rule a written application should be sent Norsvin for approval.

Sale of breeding boars

- Norsvin have first refusal on all young boars .
- breeding boars for sale should have two testicles developed .

- breeding boars for sale should be earmarked with the boars breeding number in the left ear.
- sales of hybrid boars (LD boars) should be approved by Norsvin

Terms of delivery for pigs from Norsvin's elite herds

(Unauthorized translation)

1 - Application

In the interests of preserving's Norsvin's development in pig breeding and ensure this development work for the common good, the following delivery clause for livestock from Norsvin's elite herd is applied:

a) Purchased pure bred animals must not be resold.
b) Pure bred animals who are offspring of the purchased animal must not be resold as breeding stock.

This does not concern the breeding herds (multiplier herds and elite herds) where these conditions are governed by other agreements.

If animals or their offspring are forwarded in contravention of this clause, the recipient loses his right to prescribe identified semen from Norsvin's semen station and the purchase of pure-bred animals from Norsvin's breeding herds.

2 – Other terms

Not translated here as they don't seem relevant when it comes to ABS issues. However, the original Norwegian text attached includes the whole text of the Terms of delivery.

NSG – SHEEP AND GOATS

(NSG is the organization for Norwegian sheep and goat farmers and NSG is also the breeding and semen organization for sheep and goat in Norway.)

Terms of delivery for semen

(Unauthorized translation)

Purchase and usage of semen

All sheep farmers that run their production in Norway can buy semen from NSG.

The breeding work on the breeds Norwegian White Sheep (NKS), Short Tailed Sheep (spælsau) and Sjeviot is financed by community funding. NSG must thus assure that sale of semen (genes) from these breeds must benefit all members.

Thus are the following terms of delivery applicable:

1. Delivered semen must not be disposed further without prior consent with NSG.
2. Pregnant ewes and offspring after insemination must only be used in own production, or disposed as a part of natural domestic sale or by agreement with NSG.
3. Pregnant ewes and offspring after insemination must not be sold to parties that are conducting, or have the intention to conduct, activities that compete with NSG.

4. If semen, inseminated ewes or offspring are disposed in conflict with para 1-3, the person concerned loses its' right to buy semen from NSG.

NSG may also lay corresponding restrictions on the usage of semen from other breeds. This will then appear in the presentation of the breed in the semen catalogue.

Original Norwegian text is found here:
http://www.semin.nsg.no/files/katalog_ver/NSG_seminkatalog_sau_2012.pdf (Page 36)

POULTRY

Key elements of a contract between an international poultry breeding company (seller) and a sole distributor (buyer) in Norway, regarding the terms of delivery.

The contract is only valid in a defined geographical area. It includes the right to mate pure line males and females according to the seller's crossing programme. The animals used for such crossings are of either grandparent or parent generation. The animals are multiplied to supply laying hens for commercial egg production to the market /farmers.

The contract is drawn to ensure the seller keeps the right to its trademark. It also ensures the laying hens available for commercial egg production meet the standard promoted by the seller. The contract also ensures the seller's sole right to any further breeding work based on the pure bred lines it developed/bred. The main purpose of the agreement is to prevent any unauthorized breeding that may result in animals that do not meet the standards the seller promotes. It also safeguards the seller's continuous and substantial investments in the breeding work behind these pure line animals.

The pure line animals are delivered to the buyer as day old chicks, sorted in males and females. Any sexing errors must be eliminated before they can reproduce.

The buyer only has the right to multiply and distribute animals from the seller's trademark. The buyer is not allowed to sell, give away or transfer the pure line animals to third parties.

The buyer will only mate the lines according to a programme defined by the seller. Mating of these lines with other lines is not permitted. Eggs not used for hatching must be sold as commercial table eggs.

The buyer has the right to sell animals of the seller's trade mark in the defined sales area. These animals have well-defined properties with regard to expected production capacity and a number of described phenotypic traits. The seller has the right to define the content of the trademark, based on the recorded traits and knowledge of the connection between genotypic and phenotypic traits in the pure lines, and the effect of the planned crossings.

Provided by The national meat and poultry federation in Norway.

CABI

Plantwise and the International Transfer of Biological Specimens for Identification

Plantwise is a global programme, led by CABI, to improve food security and rural livelihoods by reducing crop losses through the delivery actionable knowledge (www.plantwise.org). Plantwise is helping countries establish community-based plant clinics which deliver practical advice to farmers when their crops have a problem.

The establishment of plant clinics with national partners improves the frequency and quality of interaction between advisory services (extension) and farmers. Plant clinics are run by plant doctors. Plant doctors receive requests from farmers to diagnose diverse crop problems and to provide recommendations on how to manage the problem. To support plant doctors in their work, a variety of information documents are produced through the programme to improve the quality of diagnoses and recommendations given.

The plant clinic concept is based on developing the skills of a plant doctor to make a diagnosis, i.e. recognise the cause of the symptoms observed on the farmers' crop. This cause will often be a pest (harmful animal, weed or microorganism). Where the plant doctor cannot diagnose the cause to a level sufficient to give the farmer a recommendation, it may be necessary to send a sample to a diagnostic laboratory to identify the causative agent. Normally this would be done in-country, but where national resources are inadequate, it will sometimes be necessary to send material to another country to access particular taxonomic expertise. This material will comprise primarily pests (of all taxonomic groups), but also include crop plant parts containing pests (e.g. diseased leaves), and beneficial organisms that may act as biological control agents of pests, pollinators of crops, or provide other important ecosystem services, e.g. in soil nutrient recycling.

Traditionally, agricultural specimens for identification have passed freely between countries. For example, CABI has provided identifications for more than 100 years in this way, and the Plantwise diagnostic and advisory service continues to do this, together with international partners. Plantwise has established a policy on the international transfer of biological specimens for identification (below), to ensure that all materials are sent in full compliance with national requirements and in the spirit of the relevant international agreements. This policy is and will be followed.

Nevertheless, Plantwise and CABI support the view that national legislation should be established in such a way as to facilitate the movement of agricultural material for identification, the return of voucher specimens for national collections, as well as to facilitate deposition of such material in international reference collections for future study and research. This will help countries to comply with Article 8 'Special Considerations' of the Nagoya Protocol.

Submission to the CGRFA, March 2014.

Plantwise Policy on the International Transfer of Biological Specimens for Identification[3]

Plantwise supports and facilitates the diagnosis of plant health problems and identification of causative agents (including invertebrate pests, pathogens and weeds). Plant doctors diagnose samples brought by farmers. However, problems unknown to plant doctors are referred to diagnostic service providers, preferably in-country diagnostic laboratories. If no suitable in-country diagnostic services are available, biological specimens may need to be sent to a laboratory outside the country. Plantwise will work with national partners and the relevant authorities to ensure compliance with all relevant national regulations, including those dealing with access and benefit-sharing (ABS) and sanitary and phytosanitary (SPS) measures. Specifically, Plantwise partners should establish and maintain contact with, and follow the recommendations of concerned National Plant Protection Organisations (NPPOs), as well as the Convention on Biological Diversity (CBD) National Focal Points and the Competent National Authority on ABS.

The CBD established the sovereign rights of states over their natural resources. To meet one of its principal objectives, the CBD developed the Nagoya Protocol to facilitate access to genetic resources and the fair and equitable sharing of benefits arising from their utilization (i.e. ABS). As this protocol is ratified, countries will enact legislation to provide regulations for ABS, which may be based on prior informed consent (PIC) and mutually agreed terms (MAT) documented in a material transfer agreement (MTA).

Biological specimens for identification are genetic resources, and therefore Plantwise and its partners will comply with ABS national regulations and procedures, including PIC, MAT and use of MTAs as may be specified. Where there is no specific legislation, Plantwise will comply with the spirit of the CBD, and make sure that relevant national authorities are aware of the need for international transfer of biological specimens for identification. Images and descriptions of specimens and symptoms do not include genetic material and may be freely exchanged.

Following diagnosis/identification, genetic resources may be destroyed or returned to the source country. However, if specimens are required for a reference collection, permission for deposit will be obtained, if not already permitted under the MTA. Subsequent transfer of biological specimens would only take place under a compliant MTA. Thus, Plantwise and its partners encourage transparency, retaining the link between country of origin and end user of genetic resources.

[3] www.plantwise.org/uploads/file/plantwise_policy.pdf

LE CENTRE DE COOPERATION INTERNATIONALE EN RECHERCHE AGRONOMIQUE POUR LE DEVELOPPEMENT (CIRAD)
L'INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE (INRA)
L'INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT (IRD)

Lignes directrices pour l'accès aux ressources génétiques et leur transfert

http://www.ird.fr/content/download/39705/301949/version/1/file/Lignes_directrices.pdf

Résumé

Les lignes directrices ont pour objet d'exposer les modalités d'accès et de transfert des ressources génétiques et connaissances liées, tout en assurant une gestion durable de la biodiversité en respect des règles sanitaires, de conservation, d'échanges et de biosécurité. Elles concernent l'ensemble des ressources génétiques, qu'elles soient végétales, animales ou microbiennes ainsi que les connaissances associées et traditionnelles. L'objectif est d'accompagner le chercheur lorsqu'il procède, dans la pratique, à des opérations d'échange de matériel génétique. Cette procédure est traitée logiquement, depuis l'accès à la ressource jusqu'à son transfert, en passant par son acheminement dans les conditions sanitaires requises. Assez simple et rapide, ce processus repose sur des procédures administratives (vérification de listes, obtention de permis, d'autorisations, de certificats) et généralement sur un contrat privé entre le fournisseur et l'acquéreur : l'Accord de Transfert de Matériel (ATM). L'accord sur le Commerce international des espèces menacées (Cites), ainsi que les listes nationales (ou régionales) d'espèces protégées sont à prendre en compte en premier lieu. S'agissant du transfert de la ressource génétique proprement dit, la Convention sur la diversité biologique (CDB), le nouveau Protocole de Nagoya et certaines législations nationales édictent le cadre relatif à l'accès aux ressources génétiques et au partage des avantages issus de leur utilisation, y compris les droits des populations locales et autochtones sur leurs connaissances. Des conditions particulières existent pour certaines ressources phytogénétiques utiles à l'alimentation et à l'agriculture couvertes par le Traité international sur les ressources phytogénétiques pour l'alimentation et l'agriculture. Des règles particulières sanitaires et de transport s'appliquent également au matériel d'origine végétale, animale et microbienne. Enfin, le droit de la propriété intellectuelle et des règles de biosécurité s'appliquent également en parallèle sur certains produits.

Abstract

Guidelines for genetic resources access and transfer

These guidelines describe the modalities for access and transfer of genetic resources and related knowledge, ensuring a sustainable management of biodiversity and in compliance with sanitary, conservation, trade and biosafety rules. These guidelines cover the whole spectrum of genetic resources, either plant, animal or microorganisms, as well as associated and traditional knowledge. The objective is to provide practical guidance to researchers dealing with the exchange of genetic material. The document proceeds along a sequential approach, from access to the resource to its transfer according to requested sanitary conditions. This rather simple and quick process lies upon administrative procedures (check-lists, licences, authorizations and certificates) and generally upon a private contract between the supplier and the recipient: the Material Transfer Agreement. The Convention on international trade of endangered species (Cites), as well as national (or regional) lists of protected species are the first obligations to be considered. Regarding transfer of geneic resources, the Convention on Biological Diversity (CBD), the recent Nagoya Protocol on Access and Benefit-sharing and some national legislations, define the scope and terms and conditions of access to genetic resources and sharing of benefits arising from their use, including rights of local and indigenous communities on their knowledge. Some specific conditions exist for plant genetic resources for food and agriculture covered under the International Treaty on Plant Genetic Resources for Food and Agriculture. Specific sanitary and transportation rules also apply to material originating from plant, animal and microorganisms. Lastly, intellectual property rights and biosafety rules might apply for some products.

LE CENTRE DE COOPERATION INTERNATIONALE EN RECHERCHE AGRONOMIQUE POUR LE DEVELOPPEMENT (CIRAD)

SECRECY AGREEMENT FOR THE TRANSFER OF MATERIAL (BIOLOGICAL, VEGETABLE, ETC..)

BETWEEN :

THE NATIONAL INSTITUTE FOR AGRONOMIC RESEARCH
Public corporation of science and technology
Hereinafter referred to as: INRA
Whose registered offices are located at: 147, Rue de l'Université
75338 PARIS CEDEINRA 07
Represented herein by
In his capacity as General Manager

of the one part,

AND :

X

Whose registered offices are located at:

Represented herein by
In his/her capacity as

of the other part,

PREAMBLE

- X has in its possession material (biological, vegetable, etc..), hereinafter referred as MATERIAL, and the information relating thereto; the MATERIAL consists of ..... characterised by ..... (specify whether the material is protected by industrial property title-deeds, wherever applicable).

- INRA has the necessary skills and the possibility of .....

- INRA is interested in the MATERIAL in X's possession.

- The term INFORMATION in this agreement shall encompass any information (verbal or written) of a confidential nature relating to the MATERIAL.

IN CONSEQUENCE WHEREOF THE PARTIES AGREE AS FOLLOWS

ARTICLE 1

1.1. X undertakes to supply the MATERIAL to INRA after both parties have signed this agreement.

1.2. The MATERIAL is being supplied to INRA on a non-exclusive basis and for the exclusive purposes of research and experimentation, with a view to .....

1.3. Accordingly, INRA undertakes to use the MATERIAL solely for this purpose.

ARTICLE 2

2.1. X is recognised as the exclusive proprietor of the MATERIAL and the INFORMATION supplied to INRA and the intellectual property rights relating thereto.

2.2. INRA cannot obtain any rights, title-deeds, licences over the MATERIAL and INFORMATION furnished by X.

ARTICLE 3

3.1. It is expressly forbidden to handle or transform the MATERIAL in any way which might affect X's rights over the MATERIAL, without the prior written permission of X.

3.2. INRA is not authorised to combine, blend or incorporate the MATERIAL into any other material (whether or not of a biological nature) except for the purposes of the studies provided for within the framework of this agreement.

ARTICLE 4

4.1. No commercial or licence rights are granted or involved in X's supply of the MATERIAL to INRA.

4.2. The possible terms of commercial use relating to the MATERIAL shall be determined via a separate agreement within the framework of a contract, which shall be signed at the appropriate time. Similarly, the MATERIAL can in no way form the subject of a patent or any other industrial title-deed application on the part of INRA without the prior written permission of X.

ARTICLE 5

5.1. INRA acknowledges the confidential nature of the MATERIAL and the INFORMATION and agrees:

- to supply this MATERIAL and the INFORMATION only to members of its full-time staff who agree to be subject to the provisions of this secrecy agreement ;
- to take all reasonable measures to avoid its personnel disclosing any or all of the MATERIAL and/or the INFORMATION to a third party without the prior written permission of X.

5.2. INRA assumes the responsibility of ensuring that the obligations under the terms of this agreement are complied with with regard to anyone having or having had access to the MATERIAL and the INFORMATION.

ARTICLE 6

The confidentiality obligations of the parties hereto do not apply to INFORMATION and MATERIAL:

- that was generally available to the public at the time of its disclosure by either of the parties,
- having become generally available to the public without breach of any one of the provisions of this agreement,
- that has been legitimately furnished by a third party not bound by obligations of confidentiality,
- that was already public knowledge before this agreement came into force without disclosure, whether direct or indirect, by either of the parties hereto.

ARTICLE 7

7.1. The results arising out of the present agreement, obtained by INRA, cannot be disclosed to a third party without the prior written agreement of X.

7.2. X and INRA shall jointly determine whether any results can form the subject of oral or written disclosure and which authors, belonging to either party, shall be co-signatories.

7.3. Reference should be made to X as the source of the MATERIAL in all published matter relating to the use of the MATERIAL.

ARTICLE 8 - NON-RESPONSIBILITY

8.1. The MATERIAL supplied herein is of an experimental nature. X issues no guarantees as to its utility, efficiency, non-toxicity, security, with regard to a specific use.

8.2. X accepts no responsibility for damage caused by the MATERIAL or the INFORMATION, or by any use which might be made thereof.

ARTICLE 9 - TERM

9.1. This agreement shall come into force as of the date of signing, for a term of .....

9.2. On the expiry of the present agreement, X can ask INRA to restore or destroy the MATERIAL, as well as any derivative material.

9.3. Whatever the circumstances, the obligations of confidentiality and secrecy appearing in this agreement shall be upheld so long as the information and the results have not become generally available to the public.

ARTICLE 10 - APPLICABLE LAW

10.1. This agreement is governed by French law.

10.2. The parties shall endeavour to reach an amicable arrangement in the event of any disputes arising out of the interpretation or the performance of this agreement. Failing this, the parties shall refer the dispute to the French courts.

In witness whereof, this agreement has been drawn up in duplicate.

Done in PARIS on .....

INRA X

FOREST RESEARCH

Material Transfer Framework Agreement

The Parties	***The Supplier***	***The Recipient***
	Forest Research, Alice Holt Lodge, Farnham, Surrey GU10 4LH	

Background

1. The Parties wish to {state purpose or goal for the transfer}.
2. {Recipient Name} will be the recipient of the tissue referred to in this document. The Recipient wishes to {state what they wish to receive and what they aim to do with the material}.
3. The Supplier has {state what will be supplied and mention any other partners involved who have a claim on the material}. A list of material supplied will be provided at the time of delivery and will accompany the Material Exchange Document.

Recipient agrees to the following conditions:

Use and Distribution:

- The culture(s)/material must only be used for research and education purposes as described above within your laboratory by staff under the direct supervision of {recipient name}.
- The culture(s) /material must not be distributed to other laboratories or organisations without the prior express written permission of the Supplier.

Publications:

- Due acknowledgement of this agreement must be given, as follows:
  - The source of the Material (tissue) must be acknowledged as follows: *"Tissue used in this study was supplied from Forest Research's collection {also include any partner organisations}".*
  - The appropriate Forest Research scientist(s) and their collaborator at {name any partner organisations} must be acknowledged in the authorship of any scientific papers, reports or publications: i.e. {name individuals to be given authorship rights}.
  - Any presentations and media coverage that refers to the tissue materials must make appropriate references to Forest Research, {name any partner organisations}.

- Sight of any draft report or publication intended for publication in the public domain at least 20 working days before publication, allowing the Supplier to make appropriate comments and if thought necessary also to omit Supplier's confidential information

Administration:

To remind the recipient of FR's expectations relating to this agreement, all physical materials exchanged will be accompanied by a Material Exchange Document which refers to this framework document but will not require a signature.

Signed:	Signed:
Name: {supplier's name} Forest Research Northern Research Station Midlothian EH25 9SY Telephone: +44 (0) 131 445 6926	Name:{recipient name} Recipient's address
On Behalf of Supplier	On Behalf of the Recipient
Date	Date

INTERNATIONAL ORGANIZATION FOR BIOLOGICAL AND INTEGRATED CONTROL (IOBC)

GLOBAL COMMISSION ON BIOLOGICAL CONTROL AND ACCESS AND BENEFIT SHARING[4]

Best Practices for the use and exchange of biological control genetic resources relevant for food and agriculture

Background

Under the CBD (Convention on Biological Diversity), it is now internationally recognised that countries have sovereign rights over the genetic resources (GR) within their boundaries. Agreements governing the access to these resources and the sharing of the benefits arising from their use should be established between the parties involved. This applies to all biological control agents (BCAs) taken from one country to another. The biological control community of practice will need to comply with regulations arising under the Nagoya Protocol.

There are two main categories of biological control (BC). Classical biological control (CBC) is the introduction of a BCA, usually from a pest's area of origin, to control the pest in an area where it has invaded. Once introduced, the BCA will become established, reproduce and spread, and have a self-sustaining effect on the target pest. At this stage, the BCA becomes a 'common good' available to the whole population. Augmentative biological control (ABC) involves the production and release of BCAs, indigenous or exotic, into specific crop situations, where they cause mortality of the target pest, but are not expected to persist from one cropping cycle to the next. ABC companies identify possible BCAs for a particular pest-management use, carry out research to develop rearing methods, methods of use, and establish their efficacy. Only a proportion of those potential BCAs originally selected reach a commercial stage, and most of these are indigenous species. Their sale should eventually generate modest profits, but the benefits to the country where they are used are mostly in terms of reduced pesticide use to the benefit of farmers and consumers. The scope for sharing benefits with the source country is mostly capacity building and shared research.

Allowing access to BCAs for use in another country imposes no risk of liability to the source country. Furthermore, traditional knowledge has not hitherto been relevant to finding and identifying potentially useful natural enemies. The search for BCAs should not be confused with bioprospecting (or biopiracy). Equally, BCAs are not modified genetically; thereby they cannot be patented. BC is

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one of many research-based activities that require access to GR, offer scope for capacity building and shared research, but that are not expected to generate monetary returns that are practical to share.

BCAs have played an important role to control pests of consequence in agriculture, forestry, human health and the environment. In particular, introduction of BCAs to combat invasive alien species has been and continues to be a primary focus. In 2009, the Global Commission on Biological Control and Access and Benefit-Sharing of the International Organisation for Biological Control of Noxious Animals and Plants (IOBC) prepared Background Study Paper No. 47 on *The Use and Exchange of Biological Control Agents for Food and Agriculture* at the request of the Food and Agriculture Organization (FAO) Commission on Genetic Resources for Food and Agriculture (Cock et al. 2009).

> Recommendation 5 of this report states, "A document describing best practices for ABS in relation to BC including guidelines for joint research that are equitable, but not restrictive, should be prepared and disseminated. BC organisations would be expected to follow these guidelines."

Since the earliest days of BC in the 18th century, there has been a community of practice based on free multilateral exchange of BC agents, rather than bilateral exchange or defined benefit sharing agreements. Countries are both providers and users of BC agents. It has usually made good practical sense to collaborate with a research organisation in a (potential) source country, and the need for collaborative research in the source country has grown together with the need for more detailed risk and environmental impact assessment studies has grown, the need for collaborative research in the source country has grown. Conversely, there is a general trend for access to GRs, including BCAs, to become increasingly restrictive, for a variety of reasons, including ABS regulations and, in the case of BC, phytosanitary legislation. The existing multilateral free exchange ethos and effective global networking of BC practitioners are foundations that deserve special consideration with regards to ABS.

The IOBC Global Commission on BC and ABS endorses this approach and the following Code of Best Practices for Biological Control.

BEST PRACTICES FOR EXCHANGE OF BIOLOGICAL CONTROL GENETIC RESOURCES

1. Informal networks

Informal cooperative networks of BC practitioners around the world, involving scientists working with government agencies, intergovernmental organisations, international agricultural research centres, universities, industry groups, etc. are best suited to assist BC practitioners for the **free multilateral exchange of BCAs**. This practice is especially important in BC against pests of plantation crops, where the target country might even be seen as an economic competitor of the source country; the source country has already benefited, or expects to benefit in turn, when it needs access to a BCA.

Informal networks are particularly effective when it comes to providing known BCAs, e.g. from a country where they have already been introduced, and redistribution of a recently introduced BCA within a country.

2. Information on biological control agents

Knowledge of what BCAs have been used, where, and how successfully is an important issue for good practice. Although this information is often, but not always, available in the published literature, finding it may be a problem if the literature is large. Therefore the development and use of databases that are up to date and publicly available is encouraged to improve access to known GR for use in BC.

For commercial BCAs, two international organisations represent the ABC industry and can provide information: International Biocontrol Manufacturers' Association (IBMA) (www.IBMA.ch) based in Europe and Association of Natural Biocontrol Producers (ANBP) (www.anbp.org) based in North America. These organisations provide information about the availability of natural enemies, but the

most recent information about species available for certain crops in certain areas can often be better obtained directly from the producers, whose contact details are available from IBMA or ANBP.

For classical BCAs, once the identity is rigourously established all other sources of information can be used for research and for a better understanding of the organism. The vast amount of data available in published literature and through internet-based databanks become accessible, often free of charge, such as gene banks (e.g., National Center for Biotechnology Information), literature services (e.g., CABDirect, AGORA/HINARI/OARE, AGRIS, AGRICOLA), collections of journals and their archives (e.g., JSTOR, AJOL, Bioline International), and other compilations of specialised information, e.g., CABI Crop Protection Compendium, Encyclopaedia of Life.

3. Gaining access to biological control agents

BCAs are not literally available off the shelf. They are living material, normally in situ, and if they have not been previously used in BC, they are of largely unknown value. They need to be collected from the field, studied, cultured (usually) and sent by hand, air-freight, or post to the target country. Access and permission to export currently depend on national regulations, the legislation for which may or may not address ABS issues. Governments are normally focused on protecting their biodiversity and legislation is based on that interest, although sometimes their ABS regulations have prevented rather than stimulated the use of their biodiversity. To safeguard these interests benefit sharing agreements (Appendix 1) that encourage the maximum amount of research and development are a good tool to enable BCA exchange (Biber-Klemm et al. 2010).

Where ABS regulations are not restrictive or do not exist, establishing a policy for provision of BCAs to other parties can be an effective way for organizations to easily provide material to a partners. Such a policy protects the supplier by setting out the conditions under which BCAs can be provided or should not be provided (Appendix 2).

4. The research process and opportunities for benefit sharing

Preliminary surveys for the target pest and its natural enemies will often need to be carried out in several countries. These surveys offer limited opportunities for financial benefit sharing, but benefit the source country through provision of training in survey methods, joint surveys, capacity building and information generated to better understand biodiversity. Specimens of pests and natural enemies would normally need to be exported for identification and taxonomic studies.

Detailed studies on natural enemies to assess their potential as BC agents must in part be carried out in the source country, while host-specificity studies involving plants or animals not naturally occurring in the source country would best be carried out in quarantine in the target country or in a third country. It is this stage of a biological control programme that provides great scope for collaboration, shared research and capacity building. In comparison, there is relatively little scope for routinely sharing research with the source country during the BC agent release stage.

In source countries, local partners are essential to carry out BC surveys and research. When added to the moral obligation in the spirit of ABS, there is a compelling case for local partnerships. Some of these local partners will become the leaders in developing BC options for their country in the future.

4. Legal or technological considerations on use and exchange of biological control agents

Patenting and know-how. Organisms such as BCAs cannot be patented as they are not modified or improved. Therefore, BCAs are a public good. To protect intellectual property ABC companies may establish patents on rearing processes, but more usually handle this by keeping the relevant know-how secret. It may be possible to patent individual strains of invertebrate BCAs in future, a process already being developed for microorganisms, but there are no examples as yet. Possible examples might include an acaricide-resistant predatory mite, or a predator selected for heat tolerance. However, the relatively low income and profits of ABC firms makes patenting less likely as the high development cost will often not be justified by the expected sales (Cock et al. 2009).

Licensing production. The larger ABC companies are already able to license production to smaller companies, and this provides one way to facilitate setting up new companies in new countries to supply new markets. This could include the source country.

Inter-company supply. Commercial ABC companies can and do buy BCAs from each other on occasion.

5. References

Biber-Klemm, S., S. I. Martinez, A. Jacob, A. Jevtic. 2010. Agreement on Access and Benefit Sharing for Non-commercial Research. Swiss Academy of Sciences, Bern, Switzerland.

Cock, M.J.W., J.C. van Lenteren, J. Brodeur, B.I.P. Barratt, F. Bigler, K. Bolckmans, F.L. Cônsole, F. Haas, P.G. Mason, J.R.P. Parra. 2009. Use and exchange of biological control genetic resources relevant for food and agriculture. FAO Genetic Resources Commission by the IOBC Global Commission on Biological Control and Access and Benefit Sharing. FAO Background Paper 47, 94p.

Document provided by the IOBC Global Commission on Biological Control and Access and Benefit Sharing to the CGRFA, March 2014.

Appendix 1

Part A: Access to Genetic Resources

The Agreement

Preamble

The purpose of this Agreement is to set out the conditions for the use of genetic resources, any associated traditional knowledge (TK) and the sharing of resulting benefits between the parties concerned in accordance with the Convention on Biological Diversity (CBD), particularly in respect with the principles established under its Articles 1, 8(j), 15, the Nagoya Protocol and Bonn Guidelines.

The Agreement contains Mutually Agreed Terms (MAT) according to Article 15.7 CBD.

The Agreement is designed to promote non-commercial academic research, such as research in taxonomy, ecology, biochemistry and genetics, and to foster conservation and the environmentally sound and sustainable use of genetic resources.

Its objective is to provide a sound basis for cooperation, transparency, communication and trust between the parties to the Agreement, taking account of the concerns of both providers and users of genetic resources.

1. Parties to the Agreement
The Agreement is entered into on [insert the date] by and between
[insert the name and details of the following:
State and Institution (competent ABS national authority)
The contact person responsible for the implementation of the Agreement on behalf of the institution] together hereinafter referred to as the "Provider".
and [insert the name and details of
The responsible research institution
The representative of the research institution responsible for the implementation of the Agreement]
Represented by the authorized head or member of the research team; authorized researcher
[insert the name and details of researcher] together hereinafter referred to as the "User".

2. Prior Informed Consent
Option 2.1
The Agreement is based on the Prior Informed Consent (PIC) issued beforehand by the Provider to the User for the access to the genetic resources concerned. The PIC document is attached to this Agreement and is considered an integral part of the Agreement.
Option 2.2
The Provider hereby confirms that he/she has been informed on the research project by the User and consents to provide access to genetic resources in situ and/or ex situ necessary to carry out the research in accordance with the research project attached to this Agreement.

3. The Purpose of the Agreement
The purpose of this Agreement is to specify the terms for
1. Accessing genetic resources,
2. Their utilization in accordance with the PIC,
3. Their possible transfer to third parties, and
4. For sharing the benefits resulting from the utilization of genetic resources.

4. Terminology
In this Agreement the terms defined in Article 2 CBD shall have the same meaning, unless otherwise defined in this article.

4.1 Genetic Resources
Option 4.1.1 Genetic Resources means genetic material of actual or potential value.

Option 4.1.2 Genetic Material means any material of plant, animal, microbial or other origin containing functional units of heredity.
Option 4.1.3 The term "Genetic Material" includes derivatives as defined below.

4.2. Derivatives
Option 4.2.1 Derivatives means products based on Genetic Resources and generated through techniques such as expression, replication, characterization or digitalization

Option 4.2.2 Derivatives mean substances created from Genetic Resources that are substantially modified to have new properties.

4.3 Commercialization
Commercialization means the use of the Genetic Resource for the generation of any kind of actual or potential economic profit. It means in particular any sale, lease, licensing of the Genetic Resource, and/or Products generated from its use through actions such as filing a patent application, obtaining intellectual property rights or other tangible or intangible rights. It includes any transfer of the Genetic Resource to a for profit organization.

4.4 Mutually Agreed Terms (MAT)
The Mutually Agreed Terms are an agreement negotiated between the Provider and the User of the Genetic Resources and/or holders of Traditional Knowledge associated to the Genetic Resources according to the national law of the country providing the resources. The MAT regulate conditions for the access to the Genetic Resources and to their associated Traditional Knowledge and the fair and equitable sharing of benefits that result from their use. They are adapted to the specific access situation.

4.5 Traditional Knowledge
Option 4.5.1 Traditional Knowledge is the accumulated knowledge that is vital for the conservation and sustainable use of biological resources and/or which is of socioeconomic value, and which has been developed over the years in indigenous/local communities.
Option 4.5.2 Traditional Knowledge means "information or individual or collective practices of an indigenous or local community associated with the genetic heritage having real or potential value".

4.6 Prior Informed Consent (PIC)
Prior Informed Consent means the unilateral declaration of the Provider that he/she has been informed about the planned research and that he/she is willing to provide the required access to the Genetic Resource.

4.7 Product
Product means the result produced, obtained, extracted or derived from the Genetic Resource through research or research & development (R&D) activities, including data and information generated through analyses of the Genetic Resources.

4.8 Progeny
Progeny means unmodified offspring from the Genetic Resource

4.9 Third Party
Third Party means any person or institution other than the Provider, the User and any collaborator under their control or supervision. A Third Party is not bound to the terms and conditions of this Agreement unless otherwise agreed with the User.

4.10 Unauthorized Person
Unauthorized Person means any person that came into possession of the Genetic Resources without the authorization of the User.

5. Genetic Resources to be accessed
The User shall have access to the following Genetic Resource(s):
[Insert list of the Genetic Resources to be accessed].
Option 5.1 – Since the species/strains present at the collection site are not know to the User at the time of concluding this Agreement, a general account of species/strains most likely to be collected is given in Annex XX.

A list of the collected samples according to the researcher's field-notes is presented to the Provider within XX months after having gathered the samples.
Option 5.2 – If the collected samples cannot be identified in the list of collected samples within the above prescribed period, their identification has to be shared with the User as soon as it is available.

6. Utilization
The Material may be utilized for non-commercial purposes including for academic research and collections, and for training, teaching and education.

The User must comply with the User's and Provider's national regulations and with relevant international law. The utilization of the Material or derived information for any type of Commercialization is prohibited.

Option 6.1 –The Genetic Material shall be used exclusively for the following purposes: [insert allowed activities and/or uses.

7. Change in Utilization from Non-commercial to Commercial
The Commercialization of the Genetic Material and related information is prohibited.

Any change in utilization from non-commercial to commercial shall require a new Prior Informed Consent in writing issued by the Provider. In this case, the terms of such Commercialization shall be subject to a separate agreement (MAT) between the involved parties.

8. Transfer of Genetic Resources (and associated TK) to Third Parties
Transfer of the Genetic Resources for the purposes of academic research and collections, and for training, teaching and education, or any other non-commercial activities is allowed under the condition that the User ensures that the subsequent person or institution (Third Party) is informed about the provisions under this Agreement and undertakes to pass on the Genetic Resources under the same obligations to any further recipient.

Option 8.1 – The User delivers to the Provider annually a list of the Third Parties to whom the Genetic Resource was transferred.
Option 8.2 – The User shall maintain retrievable records of any transfer of the Genetic Resources to Third Parties under the conditions corresponding to this Agreement.
Option 8.3 – The User shall require the Third Party to sign an agreement containing identical obligations on Use and Transfer of the Genetic Resources (and associated TK) as set out in this Agreement.
Option 8.4 – The Genetic Resources [and their associated TK] may be transferred to Third Parties only after having obtained the written consent of the Provider and in accordance with Mutually Agreed Terms between the Provider and the Third Party. Exempted is a temporary transfer of the Genetic Resource to taxonomic specialists for scientific identification.
Option 8.5 – The User is entitled to deposit the Genetic Resources in collections that are accessible without restrictions for research purposes such as herbaria, museums and culture collections.
Option 8.6 – If the Genetic Resources are transferred to an ex situ collection of living Genetic Resources for educational purposes (such as zoos, botanic gardens), this institution is – in addition to the obligations of this Agreement – obliged to take any appropriate precautions to prevent the Genetic Resource coming into the possession of any Unauthorized Person.
Option 8.7 – If the use or storage of the Genetic Resource is subject to special conditions or restrictions, such conditions/ restrictions have to be clearly indicated on the label or otherwise linked to the sample, when transferring the Genetic Resource to Third Parties, including the indication of where the information concerning the special conditions/restrictions can be found.

9. Benefit Sharing
The benefits arising from the access and use of the Genetic Resources shall be shared fairly and equitably by the User, in accordance with the principles established in the CBD. Basic benefits to be shared include:

1. The offer to the Provider to include local researchers in the research activities, if such interest exists.
2. In case of publications or oral presentation of the research results, full acknowledgement is to be given to the source of the Genetic Resource;

3. If TK associated to the Genetic Resources is involved, the research results published or presented orally will include full acknowledgement of the source of the Genetic Resources and the TK, if so required by the providers.
4. The Provider will receive a copy of all publications;
5. Research results will be communicated to involved stakeholders (e.g. communities, indigenous people) in an adequate manner and according to reasonable requirements of the Provider;
6. If applicable, share duplicate specimens with the repository in the Provider country in accordance with good scientific practice.

In addition, the User agrees to share the following benefits:
[Choose from the list of benefits appended to this Agreement; insert a detailed lists of benefits here or in an annex]

10. Rights and Obligations of the Provider

The Provider defined in Article 1 is the responsible contact point for the User for the entire duration of the present Agreement.
The Provider has the obligation to facilitate access to the Genetic Resources. This includes the facilitation of the acquisition of other permits required in accordance with the relevant national or regional regulations in the Provider country as well as export permits.
Option 10.1 – The Provider designates the following institution [insert the relevant institution] as the responsible contact point for the User for the entire duration of the present Agreement.
Contact details of the technical contact point are provided in Annex [XX] to this Agreement.
The Provider has the right to receive information on the state of the research from the User as agreed upon (see Article 12 on Reporting).
Option 10.2 – The Provider requests that the following analytical parts as set out in the project are performed in the providing country: [insert a list of analyses to be performed in the Provider's country].
The Provider confirms that all necessary conditions (equipment, staff and consumables) for conducting the analyses are available. The User confirms that he/she has the necessary resources (funding, time) for such an arrangement.

11. Rights and Obligations of the User

The User is entitled to administrative support and guidance to facilitate the acquisition of the necessary permits required by the Providing country.
The User shall not use the Genetic Resource nor derivatives generated in the research for any commercial purposes, nor shall the User commercialize any Product derived from the Genetic Resource, unless with the written consent of the Provider.
The User is obliged to take all reasonable precautions to prevent the Genetic Resource coming into the possession of any Unauthorized Person.
The User is obliged to inform the Provider about any unforeseen research results that are of potential commercial interest, prior to any disclosure of this information to the public.
Option 11.1 – If the research implies TK associated to the Genetic Resource, the User is obliged to respect any relevant international law and the national and regional regulations in the Provider's country, and has to proceed according to the instructions of the Provider. In any case the User is obliged to respect the customary law of the holders of the TK and has to apply ethical standards.
Option 11.2 – Corresponding to national law the User will conclude an ancillary contract with the holders of TK and/or the private land owners of the genetic resources. The ancillary contract forms an integral part of this Agreement.

12. Data Sharing

The User agrees that the Provider has the right to access the following data resulting from the research:
[insert type of data]
The User shall facilitate access to the above defined data for the Provider.
The Provider agrees that for using the data in his own research, he needs the consent of the User.

Option 12.1 – Given the cooperative approach to the research, the Provider and the User agree in a separate agreement on the use of the data, annexed to this Agreement [Annex XX] and forming an integral part of it.

13. Reporting

The User will deliver a written report in accordance with the Provider´s instructions as to its structure, information included, etc, upon his/her request.

Option 13.1 – The User shall submit an annual written report on the research accomplished.
Option 13.2 – Upon request of the Provider, the User submits a written report on the research accomplished.
Option 13.3 – Upon request of the Provider, the User submits an annual written report on the research accomplished. The report shall include a list of Third Persons to whom the Genetic Material has been transferred.
Option 13.4 – Since the Provider is a private citizen, upon his/her request, the report is translated into the local language by the User and adapted to a non-scientific audience.

14. Intellectual Property Rights
The User shall not claim any intellectual property rights over the Genetic Resource in the form received.
If the User wants to obtain intellectual property rights on research results such act shall be treated as change in utilization and thus shall be regulated under Article 7 of the present Agreement.

If the Provider wishes to obtain IPR on research results, such act shall be treated as change in utilization and shall be regulated under Article 7 of the present Agreement. In particular the ownership of the IPR and the distribution of the value derived from the IPR are to be negotiated.

15. Publications
The User has the right to publish the results of the research related to the Genetic Resource according to Article 6 of the present Agreement, and according to good scientific practice. The origin of the Genetic Resource has to be acknowledged.
Option 15.1 – The User has the right to publish the results of the research related to the Genetic Resource according to good scientific practice. The origin of the Genetic Resource has to be acknowledged, as well as the sources of TK associated with the Genetic Resource.
Option 15.2 – The holder of TK associated to the Genetic Material has the right to request confidentiality of specific information [describe the information subject to confidentiality] such as for spiritual reasons; to prevent the depletion of the genetic resources; and/or to prevent unsafe/hazardous applications of the TK in the health sector.
Option 15.3 – If the User, in the course of the research, discovers any unforeseen commercial potential of the Genetic Material, he/she is obliged to share such information with the Provider prior to any publication of such information.
If the Provider intends to pursue a potential commercialization, this is subject to negotiations between the Provider and the User according to Article 7. The Provider agrees not to hold up the User's research work unless concerns are concrete and justified in terms of well-defined proprietary interest.
Option 15.4 – If the User is prevented from publishing the results of the research due to the Provider's wish to obtain a patent over the research results, the Provider shall file the patent application within [XX] months. After the agreed period, if the Provider has failed to file a patent application, the User has the right to proceed with the publication of the research.

16. Handling of the Genetic Material after Termination of the Agreement
Upon completion of the project, Genetic Material will be stored or disposed of according to the utilization agreed under Article 6.
Option 16.1 – If the Genetic Material has been placed in storage, or in public collections, upon expiration of the Agreement or its termination, the Genetic Material may be available for use only under the same conditions as contained in this Agreement.

17. Duration and Termination of the Agreement
The present Agreement shall end on [insert the date] and may be renewed upon the mutual agreement of the Parties.
Option 17.1 – The present Agreement shall be deemed to be in force until the Genetic Material is returned to the satisfaction of the Provider upon completion of the Project. Regarding the Genetic Material related information, the present Agreement shall be subject to any associated rights, such as copyright or trade secrets.
Option 17.2 – When a Party to the present Agreement wants to terminate the Agreement prior to the completion of the Project, the Party shall give written notice [XX] months in advance.
The present Agreement may be terminated at any time by mutual agreement of the Parties.
The present Agreement may be terminated immediately, in case of its breach.

18. Settlement of Disputes

The Parties agree to make attempts in good faith to negotiate the resolution of any disputes that may arise under this Agreement. If the Parties are not able to resolve a dispute within a period of [XX] months, such dispute shall be finally settled by an arbiter to be mutually agreed between the Parties.
Option 18.1 – If the Parties are not able to resolve any dispute within a period of [XX] months, such dispute shall be resolved before the [XXXX] Court law as the only competent body for resolving disputes arising under this Agreement and in accordance with [XXX].
[Insert applicable Law; Jurisdiction]

19. Other Provisions
Upon determination that the Genetic Material has value as a Biological Control Agent (BCA) a further agreement on the terms of use of the BCA shall be made between the Parties. This separate agreement (MAT) between the involved parties is an agreement negotiated between the Provider and the User of the BCA (Part B: Use of Biological Control Agents).

Part B: Use of Biological Control Agents

The Agreement

Preamble

The purpose of this Agreement is to set out the conditions for the use of biological control agents (BCAs), any associated traditional knowledge (TK) and the sharing of resulting benefits between the parties concerned in accordance with the Convention on Biological Diversity (the "CBD"), particularly in respect with the principles established under its Articles 1, 8(j), 15, and the Nagoya Protocol and Bonn Guidelines.

The Agreement contains Mutually Agreed Terms (MAT) according to Article 15.7 CBD.

The Agreement is designed to promote the use of BCAs to foster free multilateral exchange of BCAs, rather than bilateral exchange or defined benefit sharing agreements for the benefit of all because countries are both providers and users of BCAs.

Its objective is to provide a sound basis for cooperation, transparency, communication and trust between the parties to the Agreement, taking account of the concerns of both providers and users of genetic resources.

1. Parties to the Agreement

The Agreement is entered into on [insert the date] by and between
[insert the name and details of the following:

- State and Institution (competent ABS national authority)
- The contact person responsible for the implementation of the Agreement on behalf of the institution] together hereinafter referred to as the "Provider".

and [insert the name and details of

- The responsible institution
- The representative of the institution responsible for the implementation of the Agreement]

Represented by the authorized head or member of the institution; authorized individual(s)
[insert the name(s) and details of individual(s)] together hereinafter referred to as the "User".

2. Prior Informed Consent

The Provider hereby confirms that he/she has been informed on the intended use of the BCA by the User and consents to provide access to the BCA in situ and/or ex situ necessary to enable its use for the management of pests throughout their range globally in accordance with the details attached to this Agreement.

3. The Purpose of the Agreement

The purpose of this Agreement is to specify the terms for

1. Accessing BCAs,
2. Their utilization in accordance with the PIC,
3. Their possible transfer to third parties, and
4. For sharing the benefits resulting from the utilization of BCAs.

4. Terminology

In this Agreement the terms defined in Article 2 CBD shall have the same meaning, unless otherwise defined in this article.

4.1 Biological Control Agent

Option 4.1.1 Biological control agent means genetic material of actual or potential value including derivatives as defined below.

4.2. Derivatives

Option 4.2.1 Derivatives means progeny and strains that are substantially modified to have new traits.

4.3 Commercialization
Commercialization means the use of the Biological Control Agent for the generation of any kind of actual or potential economic profit. It means in particular any sale, lease, licensing of the Biological Control Agent, and/or Products generated from its use through actions such as filing a patent application, obtaining intellectual property rights or other tangible or intangible rights. It includes any transfer of the Biological Control Agent to a for profit organization.

4.4 Mutually Agreed Terms (MAT)
The Mutually Agreed Terms are an agreement negotiated between the Provider and the User of the Biological Control Agent and/or holders of Traditional Knowledge associated to the Biological Control Agent according to the national law of the country providing the resources. The MAT regulate conditions for the access to the Biological Control Agent and to their associated Traditional Knowledge and the fair and equitable sharing of benefits that result from their use. They are adapted to the specific access situation.

4.5 Traditional Knowledge
Traditional Knowledge is the accumulated knowledge that is vital for the conservation and sustainable use of biological resources and/or which is of socioeconomic value, and which has been developed over the years in indigenous/local communities.

4.6 Prior Informed Consent (PIC)
Prior Informed Consent means the unilateral declaration of the Provider that he/she has been informed about the planned use and that he/she is willing to provide the required access to the Biological Control Agent.

4.7 Product
Product means the result produced, obtained, extracted or derived from the Biological Control Agent through research or research & development (R&D) activities, including data and information generated through analyses of the Biological Control Agent.

4.8 Progeny
Progeny means unmodified offspring from the Biological Control Agent.

4.9 Third Party
Third Party means any person or institution other than the Provider, the User and any collaborator under their control or supervision. A Third Party is not bound to the terms and conditions of this Agreement unless otherwise agreed with the User.

4.10 Unauthorized Person
Unauthorized Person means any person that came into possession of the Biological Control Agent without the authorization of the User.

5. Genetic Resources to be accessed
The User shall have access to the following Biological Control Agent(s):
[Insert list of the Genetic Resources to be accessed].

6. Utilization
The Material may be utilized for [non-commercial or commercial] purposes exclusively for the following purposes: [insert allowed activities and/or uses.

7. Change in Utilization from Non-commercial to Commercial
If the use was intended for non-commercial purposes the Commercialization of the Biological Control Agent and related information is prohibited.
Any change in utilization from non-commercial to commercial shall require a new Prior Informed Consent in writing issued by the Provider. In this case, the terms of such Commercialization shall be subject to a separate agreement (MAT) between the involved parties.

8. Transfer of Genetic Resources (and associated TK) to Third Parties
Transfer of the Biological Control Agent for the purposes of academic research and collections, and for training, teaching and education, or any other non-commercial activities is allowed under the

condition that the User ensures that the subsequent person or institution (Third Party) is informed about the provisions under this Agreement and undertakes to pass on the Biological Control Agent under the same obligations to any further recipient.

The User delivers to the Provider annually a list of the Third Parties to whom the Biological Control Agent was transferred.

The User is entitled to deposit the Biological Control Agent in collections that are accessible without restrictions for research purposes such as herbaria, museums and culture collections.

If the Biological Control Agent is transferred to an ex situ collection of living Biological Control Agents for educational purposes (such as zoos, botanic gardens), this institution is – in addition to the obligations of this Agreement – obliged to take any appropriate precautions to prevent the Biological Control Agent coming into the possession of any Unauthorized Person.

9. Benefit Sharing

The benefits arising from the access and use of the Biological Control Agent shall be shared fairly and equitably by the User, in accordance with the principles established in the CBD. Basic benefits to be shared include:

1. The offer to the Provider to include local researchers in the research activities, if such interest exists.
2. In case of publications or oral presentation of the research results, full acknowledgement is to be given to the source of the Biological Control Agent;
3. If TK associated to the Biological Control Agent is involved, the research results published or presented orally will include full acknowledgement of the source of the Biological Control Agent and the TK, if so required by the providers.
4. The Provider will receive a copy of all publications;
5. Research results will be communicated to involved stakeholders (e.g. communities, indigenous people) in an adequate manner and according to reasonable requirements of the Provider;
6. If applicable, share voucher specimens with the repository in the Provider country in accordance with good scientific practice.

In addition, the User agrees to share the following benefits:
[Choose from the list of benefits appended to this Agreement; insert a detailed lists of benefits here or in an annex]

10. Rights and Obligations of the Provider

The Provider defined in Article 1 is the responsible contact point for the User for the entire duration of the present Agreement.
The Provider has the obligation to facilitate access to the Biological Control Agent. This includes the facilitation of the acquisition of other permits required in accordance with the relevant national or regional regulations in the Provider country as well as export permits.

The Provider designates the following institution [insert the relevant institution] as the responsible contact point for the User for the entire duration of the present Agreement.
Contact details of the technical contact point are provided in Annex [XX] to this Agreement.
The Provider has the right to receive information on the state of the research from the User as agreed upon (see Article 12 on Reporting).

11. Rights and Obligations of the User

The User is entitled to administrative support and guidance to facilitate the acquisition of the necessary permits required by the Providing country.
The User shall not use the Biological Control Agent nor derivatives generated in the research for any commercial purposes, nor shall the User commercialize any Product derived from the Biological Control Agent, unless with the written consent of the Provider.
The User is obliged to take all reasonable precautions to prevent the Biological Control Agent coming into the possession of any Unauthorized Person.
The User is obliged to inform the Provider about any unforeseen research results that are of potential commercial interest, prior to any disclosure of this information to the public.

If the use implies TK associated to the Biological Control Agent, the User is obliged to respect any relevant international law and the national and regional regulations in the Provider's country, and has to proceed according to the instructions of the Provider. In any case the User is obliged to respect the customary law of the holders of the TK and has to apply ethical standards.

12. Data Sharing
The User agrees that the Provider has the right to access the following data resulting from the research:
[insert type of data]
The User shall facilitate access to the above defined data for the Provider.
The Provider agrees that for using the data in his own research, he needs the consent of the User.

Given the cooperative approach to the free exchange of the Biological Control Agent, the Provider and the User agree in a separate agreement on the use of the data, annexed to this Agreement [Annex XX] and forming an integral part of it.

13. Reporting
The User will deliver a written report in accordance with the Provider´s instructions as to its structure, information included, etc, upon his/her request.

Upon request of the Provider, the User submits a written report on the uses made.

14. Intellectual Property Rights
The User shall not claim any intellectual property rights over the Biological Control Agent in the form received.
If the User wants to obtain intellectual property rights on research results such act shall be treated as change in utilization and thus shall be regulated under Article 7 of the present Agreement.
If the Provider wishes to obtain IPR on research results, such act shall be treated as change in utilization and shall be regulated under Article 7 of the present Agreement. In particular the ownership of the IPR and the distribution of the value derived from the IPR are to be negotiated.

15. Publications
The User has the right to publish the results of the research related to the Biological Control Agent according to Article 6 of the present Agreement, and according to good scientific practice. The origin of the Genetic Resource has to be acknowledged.

The User has the right to publish the results of the research related to the Biological Control Agent according to good scientific practice. The origin of the Biological Control Agent has to be acknowledged, as well as the sources of TK associated with the Biological Control Agent.

The holder of TK associated to the Biological Control Agent has the right to request confidentiality of specific information [describe the information subject to confidentiality] such as for spiritual reasons; to prevent the depletion of the genetic resources; and/or to prevent unsafe/hazardous applications of the TK in the health sector.

If the User, in the course of the research, discovers any unforeseen commercial potential of the Biological Control Agent, he/she is obliged to share such information with the Provider prior to any publication of such information.
If the Provider intends to pursue a potential commercialization, this is subject to negotiations between the Provider and the User according to Article 7. The Provider agrees not to hold up the User's research work unless concerns are concrete and justified in terms of well-defined proprietary interest.

16. Handling of the Biological Control Agent after Termination of the Agreement
Upon completion of the project, the Biological Control Agent will be stored or disposed of according to the utilization agreed under Article 6.

If the Biological Control Agent has been placed in storage, or in public collections, upon expiration of the Agreement or its termination, the Biological Control Agent may be available for use only under the same conditions as contained in this Agreement.

17. Duration and Termination of the Agreement
The present Agreement shall end on [insert the date] and may be renewed upon the mutual agreement of the Parties.

When a Party to the present Agreement wants to terminate the Agreement prior to the completion of the Project, the Party shall give written notice [XX] months in advance.
The present Agreement may be terminated at any time by mutual agreement of the Parties.
The present Agreement may be terminated immediately, in case of its breach.

18. Settlement of Disputes
The Parties agree to make attempts in good faith to negotiate the resolution of any disputes that may arise under this Agreement. If the Parties are not able to resolve a dispute within a period of [XX] months, such dispute shall be finally settled by an arbiter to be mutually agreed between the Parties.

Option 18.1 – If the Parties are not able to resolve any dispute within a period of [XX] months, such dispute shall be resolved before the [XXXX] Court law as the only competent body for resolving disputes arising under this Agreement and in accordance with [XXX].
[Insert applicable Law; Jurisdiction]

19. Other Provisions

Appendix 2

[Country] Naturally-occurring Beneficial Genetic Resources:
[Organization Name] Policy for provision of biological control agents to other jurisdictions

The use of biological control agents (BCAs) for the biological control of pest species is a long-standing and environmentally-friendly strategy to reduce damage to organisms of economic and environmental importance. The provision of BCAs from jurisdictions where the pest is native to those where the pest has invaded is a common and standard practice. The NBGR is introduced to provide some level of suppression of the pest species and the public is provided multiple benefits such as reduced economic losses, reduced pesticide use, a healthier environment, etc.

In *[Country]*, provision of BCAs to governments of other countries and/or non-government organizations (NGOs) is made by *[Organization Name (Acronym)]*. The BCAs are provided upon request by individuals representing governments, other institutions, or private enterprise and without formal documentation except where *[Organization Acronym]* or the receiving party may have an administrative policy for material transfer or other relevant agreements.

[Organization Name] is the major supplier of BCA's for uses in agriculture, including native ecosystems that may be linked to agricultural practices such as rangelands and riparian zones. In particular, *[Organization Acronym]* supplies BCAs for use as biological control agents to suppress pest species that may or may not be naturally distributed in *[Country]*.

Conditions under which provision of BCAs is made include:

- BCAs provided by *[Organization Acronym]* with the understanding that the receiving individual, company or organization has met all regulatory requirements of their country for receipt of the material.
- Upon receipt of a BCA, a letter acknowledging that the material has been received and in what condition must be signed, dated and returned to the *[Organization Acronym]* supplier.
- All uses benefit the public and that new knowledge generated is made widely available. This includes reporting the development and use of the NBGR as a potential or actual biological control agent (including culture, testing, release, establishment, monitoring and assessment).
- Live material, and data supplied by *[Organization Acronym]* as exchange or in response to requests, is provided for research purposes and, if approved by local regulatory officials release into nature. *[Organization Acronym]* provides no warranty and accepts no responsibility or liability for the suitability of such material or data for any use or study. Assessment of suitability of such material and data for intended use is the responsibility of the receiving institutions or researchers and it is expected that due assessment will be carried out to ensure that the use of the material will not endanger non-target organisms.
- Voucher specimens of biological control agents and associated data supplied by *[Organization Acronym]* as exchange or, in response to requests, are provided for research purposes. These specimens are subject to loan agreements if borrowed from the *[Country]* national collections.
- If a BCA provided by *[Organization Acronym]* is the subject of a publication or referenced in a publication, *[Organization Name]* and [*Country*] should be acknowledged as the source of the live material, dead specimens and/or data. We appreciate receiving notice and re-prints or electronic copies of all publications that include material provided by *[Organization Acronym]*. These can be sent to the contact person who supplied the BCA.

Conditions under which provision of BCA's is not appropriate and should be denied include:

- If there are research studies indicating that there is a significant threat that harmful organisms, such as parasites and pathogens associated with the BCA, will be introduced into the target jurisdiction and/or neighbouring countries and harm non-target organisms or reduce the effectiveness of the BCA.
- Where there is a significant threat demonstrated that collection of the [*Country*] population(s) of the BCA will have a detrimental effect on those populations or may cause disruption of ecosystem services in *[Country]*.
- Where the BCA is a protected species or under consideration for protection by the *[relevant endangered species legislation]*, except where legislation permits this to be done in collaboration with the responsible agency in such a way as to enhance the survival of the BCA in [*country*].

Note: The consequences of any lack of attention to these conditions, for example, leading to damage to non-target organisms or loss of BCA populations, will result in limited future access to *[Country]* BCA.
In providing this BCA to other countries, [*Country*] requests / hopes / expects that in principle those countries will provide similar access to their genetic resources for similar use.

MICROBIAL RESOURCE RESEARCH INFRASTRUCTURE (MIRRI)

Overview of model contractual clauses, best practices and standards for in relation to access and benefit sharing for the community of Microbial Resource Centres in Europe

Microbial Resource Centres (MRCs) hold *ex situ* collections of authentic, high-quality and well-identified cultures of living microorganisms which are available for global research in agriculture, food production, plant health and numerous other sectors. These microorganisms are, for example, used as reference materials in pathogen research, discovery of effective agents for pest control, new bio-active compounds, and improving food and beverage production. Agriculture and food security are facing the major challenges of globalisation, consumer demands and environmental concerns. The Microbial Resources Research Infrastructure 1 (**MIRRI**) brings together European MRCs with users of the resources, policy makers, potential funders, and other stakeholders, aiming at coordinating improved services, facilitating the deposit of important new microbial material and improving access to microbial resources in an appropriate legal framework. MIRRI's efforts will strongly build upon the existing links to the Global Biological Resource Centre Network (GBRCN-Demonstration Project) with partners and their respective regional and national networking activities e.g. in Brazil, China, Japan, Kenya, Taiwan and other links to e.g. USA and Australia.

Since the entry into force of the Convention on Biological Diversity (CBD), the community of MRCs has worked to reach compliance and harmonise practices. Several initiatives emerged, often leading to EU-funded projects aiming to develop model contractual clauses and best practices. Some projects are now completed, others are currently underway using output of earlier projects that will be updated and supplemented with new elements for best practices, that are in compliance with the Nagoya Protocol on Access and Benefit Sharing (ABS). A summary of the work done is presented below. Footnotes provide further detailed information.

A first voluntary Code of Conduct

The project **MOSAICC2**, which was financially supported by European Commission DG Research, aimed to develop a voluntary **Code of Conduct** that provides a set of **model clauses for PIC and MAT** for providers and recipients of microbial genetic resources (MGRs), and for **Material Transfer Agreements** (MTA) for the deposit in public collections (also referred to as Material Accession Agreements) and supply of MGRs by these collections to users. Key elements identified for MTA included (i) description of the MGRs, (ii) specifications of terms of use (commercial or non-commercial) and, (iii) terms of benefit sharing (monetary or non-monetary). MOSAICC was completed in 1999, became listed on the CBD website in the Nagoya Protocol webpage and also appears on the WIPO list of sources of model contractual clauses in the context of the Intergovernmental Committee on Genetic Resources, Traditional Knowledge and Folklore. MOSAICC also influenced the drafting process for the CBD Bonn Guidelines. The latest version of the MOSAICC document is available on the BCCM website. The follow-up project **MOSAICS3**, also funded by the EU, aimed at the development of an Integrated Conveyance System, offering (i) tools to evaluate the economic value of MGR, (ii) standard provisions to enable uncomplicated tracking of MGR, and (iii) a way of balanced benefit sharing for those that are entitled to be rewarded for the services and products they provide to society.

The practice of sharing MGRs and related information by scientists world-wide for research purposes, known as **Microbial Commons** [4, 5, 6] has been key to the development of microbiology over more than a century. Collections have been involved in several recent studies and meetings on the subject of microbial commons, which aimed at analysing current practices of sharing MGRs and information by collections, researchers and their networks, and how this practice could be placed on a more solid scientific, and legally sound, institutional basis. The complicated issues of ownership was also addressed and a "**bundle of rights**" [7] attached to MGRs was proposed, which should be regulated by law and managed through agreements and contracts between stakeholders.

Best practice and the ECCO-Core MTA
Even years after the publication of the Bonn Guidelines in October 2001, many Parties to the CBD still failed to set in place authorities with competence for processing requests for PIC and MAT. Meanwhile, the collections continued their efforts to find ways to enhance compliance under these quite difficult circumstances.

After considerably discussion in various meetings, most public collections adopted a best practice for deposit and supply of MGRs. The main elements for this best practice are:

- Accession forms to be completed by the depositor of the MGR where information on the PIC and MAT should be provided, if applicable
- No acceptance of MGRs without information about the country of origin
- Supply by the collection of MGRs to users under MTA settling the most important conditions for supply and terms of use

Collections recognised that a highly harmonised MTA for supply by all European collections would contribute to improving legal certainty and transparency to both users and suppliers of MGRs. Therefore, the European Culture Collection's Organisation [8, 9] (**ECCO**) developed the **"ECCO-Core MTA"** [10], taking recommendations of MOSAICC into account. The Core MTA answered to the need of collections to have a harmonised MTA that settles terms for use of supplied MGRs, and also effectively raises awareness with the users of MGRs about their obligations under the CBD, especially with regard to benefit sharing. The Core MTA was agreed upon by the ECCO members in 2009, and subsequently implemented in many European collections.

Next steps to prepare for the entry into force of the Nagoya Protocol
Member collections of ECCO and other participants in the Global Biological Resource Centre Network (**GBRCN**) Demonstration Project[11], joined in an endeavour to establish MIRRI. In its EC funded three-year Preparatory Phase (2012-2015), MIRRI is focussing on **the preparation of a legal operational framework** for the RI. MIRRI has been following the development of a Regulation for ABS in the European Union closely, provided a formal response to the draft EC proposal for the regulation, communicated directly with European Parliament Rapporteur and other MEPs, and is currently evaluating the outcome of the trilogue negotiations.

MIRRI will take the output of previous projects and initiatives into the next process of formulating minimal requirements for compliance and use these to develop a new common policy for ABS and IPR for MGRs. Alongside, partners of the MOSAICC project have started to review its set of model clauses and recommendations with the help of other experts to make it fully compliant with the Nagoya Protocol.

Global efforts
The World Federation of Culture Collections (**WFCC**) submitted an overview of efforts and novel approaches to COP9 in 2011[13]. The European MRCs are currently also involved in discussions about the consequences of the NP with collection institutions outside Europe. During international meetings[14] addressing these issues where curators of European as well as non-European collections and representatives of various governments were also present, considerable interest and positive responses were seen to the proposal to set up a **Register of collections** in the EU, as proposed by the EC in the draft Regulations. On the basis of growing consensus among MRCs world-wide on how to achieve compliance, the "**TRUST**" initiative was coined by the WFCC. The acronym stands for "TRransparent User-friendly System of Transfer for Science & Technology". TRUST aims to create an effective global system of trusted sources for microbiology, which could be supported by further development of its pioneering database system which is maintained by the World Data Centre for Micro-organisms[15] (**WDCM**). In the WDCM CCInfo-database, collections can register through a unique acronym and numerical identifier in its official list of MGRs. Today, some 656 culture collections are registered in CCInfo, holding over 2 300 000 cultures of microorganisms. The WDCM system will use the recent technology of electronic markers called "Globally Unique Identifiers

(GUIDs)" that could be used to set up a robust system to organise transfers of (micro) biological items, tracking the flow of resources and related information.

Conclusions

The community of microbial collections in Europe has been very active and continues to be so. The final result of the process of developing the EU Regulation on ABS will largely determine next steps to be taken towards the development of best practises suited for the new situation that will come into existence in the course of 2014. Based on its long-standing cooperation in ECCO and WFCC, the community of microbial collections is ready to go forward and contribute to a successful implementation of the NP. It is hoped that it will bring more legal certainty and also justice to the goals of the CBD.

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1 Microbial Resource Research Infrastructure (MIRRI) is an EU funded project that aims to build one pan-European infrastructure for microbial collections that will more effectively facilitate access to high-quality microorganisms, their derivatives and associated data and services, for research, development and applications. After its acceptance on the European Strategy Forum on Research Infrastructures road-map, MIRRI obtained funding from the European Commission and on Nov 1st, 2012 it entered a three-year Preparatory Phase, in which partners will focus on governance and structure, and technical, legal, and financial issues to build the network. This will establish the links across the distributed RI and between the RI microbiological resource centre (MRC) community, its users, policy makers and potential funders. http://www.mirri.org/

2 MOSAICC stands for Microorganism Sustainable use and Access regulation International Code of Conduct (http://bccm.belspo.be/projects/mosaicc/). MOSAICC recommendations facilitate access to MGRs and help partners to make appropriate agreements when transferring MGRs, in the framework of the CBD and other applicable rules of international and national laws. A version that was updated in 2011 is provided at theBCCM website.

3 MOSAICS stands for "Microorganisms Sustainable use and Access management Integrated Conveyance System". It was funded by Directorate General Research of the European Commission under the Sixth Framework Program. The consortium of the MOSAICS project is made of partners from developed and developing countries, including culture collections, international organisations, branch federations and specialised research institutes. Already in 1999, the MOSAICC project had identified three necessary features for a system to implement coherently the CBD provisions on ABS. MOSAICS central objective is the development of such an integrated conveyance system that:

- has reliable tools to evaluate the economic value of microbiological resources;
- disposes of validated model documents with standard provisions to enable tracking via an uncomplicated procedure, widely applied by microbiologists;
- combines valuation and tracking in one system for trading of microbiological resources, with balanced benefit sharing for those that are entitled to be rewarded for the services and products they provide to society.

4 Dijkshoorn L, de Vos P, Dedeurwaerdere T (2010). Understanding patterns of use and scientific opportunities in the emerging global microbial commons. Research in Microbiology 161: 407-413.

5 Dedeurwaerdere, T (2010). Global microbial commons: institutional challenges for the global exchange and distribution of microorganisms in the life sciences. Research in Microbiology 161: 414-421.

6 Dedeurwaerdere, T (2010). Self-governance and international regulation of the global microbial commons: introduction to the special issue on the microbial commons. International Journal of the Commons 4: 390-403. URN:NBN:NL:UI:10-1-100217.

7 The innovative concept of "bundle of rights" is a dynamic model of ownership management moving away from the static concept of ownership towards a flexible allotment of rights. Ownership constitutes a "bundle" of use and decision rights that are attributed to a number of stakeholders / economic agents. It is a set of operational and collective choice rights defining respectively who decides upon the use that one can make of a resource, and who decides upon the future exercise of the rights on the resource. Such scheme allows multi-ownership of a gradual level of use and decision rights. These rights can begin with basic access rights,

encompassing research delivering outputs to the public domain, distribution on to third parties, exploitation rights to develop intellectual property and its ownership which may include reach through rights. Furthermore, the application of the "bundle of rights" makes possible the enforcement of the "sovereign rights of States over their natural resources" without prejudice to private rights. Unambiguous allotment of rights in advance will facilitate rightful benefit sharing "at the end of the pipe". See also Dedeurwaerdere, T : Understanding ownership in the knowledge economy: the concept of the bundle of rights. BCCM News Edition 18 - Autumn 2005.

8 The European Culture Collections' Organisation (ECCO, http://www.eccosite.org/) was established in 1981. ECCO comprises 61 members from 22 European countries, holding over 350.000 strains of yeasts, filamentous fungi, bacteria and archaea, phages, plasmids, animal cells including human and hybridoma cell lines, viruses, plant cells, algae and protozoa. The aim of the ECCO is to promote collaboration and exchange of ideas and information about all aspects of culture collection activity. ECCO meetings are held annually and are a valuable forum for discussion and innovation on the future development of member collection activities.

9 Fritze D (2010) A common basis for facilitated legitimate exchange of biological materials, proposed by the European Culture Collections' Organisation (ECCO). International Journal of the Commons 4: 507-527. URN:NBN:NL:UI:10-1-100222.

10 Janssens D, Tindal B, Green P, Garay E, Fritze D, Stalpers J, Smith D, Bimet F, Desmeth P (2009). The ECCO core Material Transfer Agreement for the supply of samples of biological material from the public collection. Article 7 of this standard MTA is cited here: "If the RECIPIENT desires to use the MATERIAL or MODIFICATIONS for COMMERCIAL PURPOSE(S), it is the responsibility of the RECIPIENT, in advance of such use, to negotiate in good faith the terms of any benefit sharing with the appropriate authority in the country of origin of the MATERIAL, as indicated by the COLLECTION's documentation." The full MTA text is downloadable from http://www.eccosite.org/.

11 Global Biological Resource Centre Network Demonstration (GBRCN) Project was supported by the German Federal Ministry of Research and Education (BMBF) following work in the OECD to improve access to high quality biological resources and information to support research and biotechnology as a platform for a knowledge-based bioeconomy. Partners included collections from 15 countries, with representatives of the WFCC, a global network and regional networks, ECCO and the Asian Consortium for Microorganisms (ACM). The final report of the project which was completed in 2012 can be downloaded at http://www.gbrcn.org/.

12 Response of MIRRI to the "Proposal for a Regulation of the European Parliament and of the Council on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation in the Union" E. Stackebrandt & G. Verkleij, March 14, 2013.

13 Desmeth, P., Kurtböke, I. & Smith, D. (2011). Tools to implement the Nagoya Protocol on Access and Benefit Sharing in microbiology; ABS, an intrinsic preoccupation of the World Federation for Culture Collections (WFCC); http://www.cbd.int/abs/doc/protocol/icnp-1/wfcc-en.pdf

14 For example: NITE-NBRC 10th Anniversary Symposium "Impact of Nagoya Protocol on management of Biological Resource Centers", Tokyo, Japan, Dec. 6, 2012.

15 The World Federation for Culture Collections (WFCC) has developed a pioneering database system by registering its members through a unique acronym and numerical identifier in its official list and urging them to catalogue their microbiological resources. This system is maintained and improved by the World Data Centre for Micro-organisms (WDCM). Combining the WDCM system and the use "Globally Unique Identifiers (GUIDs)" set up a robust system to organise transfers of (micro) biological items, tracking the flow of resources and related information. This system also facilitates the application of ABS since it can potentially retrieve all kinds of information about microbiological resources, including information related to the location and movements of the resource. The WDCM portal acts as an information broker between all online catalogue entries of the culture collections. See http://www.wdcm.org/.

L'UNION NATIONALE DES COOPÉRATIVES D'ÉLEVAGE ET D'INSÉMINATION ANIMALE (UNCEIA)

MATERIAL TRANSFER AGREEMENT

BETWEEN: SENDER XXX

AND: [1]_____, hereinafter called "**the Recipient**" whose registered offices are located

at_____, represented herein by _____,

Individually called "the party" or collectively 'the parties".

BEING UNDERSTOOD THAT

- XXX has in its possession material biological / vegetable[2], the "MATERIAL", consisting of:

_____

_____

This MATERIAL has been/ has not been[3] protected by a deed of industrial property:

[4] _____

- **The beneficiary is interested in the MATERIAL held by** XXX **to lead researches on** _____[5].

- "INFORMATION" in this agreement shall mean any information, oral or written of a confidential nature relating to the MATERIAL.

IN CONSEQUENCE WHEREOF THE PARTIES AGREE AS FOLLOWS

1 XXX undertakes to supply the MATERIAL to the Recipient after the signature of this agreement by both parties. The MATERIAL is supplied to the Recipient on a non-exclusive basis and for the sole purpose of research and experiment described above. Consequently, the Recipient undertakes to use the MATERIAL only to this end.

2 The Recipient acknowledges SENDER as the exclusive owner of the MATERIAL (as well as all lines, strains, derivatives, replicated forms, subsets, relative thereto), the INFORMATION and rights of industrial and intellectual property relative to them. Consequently, the Recipient will not include the MATERIAL and/or the INFORMATION in patent application or other deed of industrial property without the preliminary written agreement by SENDER.

3 The Recipient will not proceed to manipulations or alterations, which could affect the rights of SENDER on the MATERIAL, without the written and preliminary agreement of SENDER. The Recipient is not authorised to combine, to mix or to incorporate the MATERIAL with another material (biologic or not) except for the needs of the research defined above. The Recipient undertakes to use the MATERIAL according to the national and international laws and regulations and will make his business of obtaining all authorisations needed to the conduct of its research and experiment.

4 SENDER, by this agreement, does not grant any right, title deed, right of license or exploitation right, implied or express, to the Recipient by the transfer of the MATERIAL, save express and written agreement of SENDER.

5 The Recipient acknowledges the confidential nature of the MATERIAL and the INFORMATION and agrees:

- to supply this MATERIAL and the INFORMATION only in the members of his permanent staff which agree to submit themselves to the provisions of this agreement;

- to take all the reasonable measures to avoid that this staff reveals to third parties, even for free, without written and preliminary agreement of SENDER, all or any of the MATERIAL and/or the INFORMATION. The Recipient assumes the responsibility for implementing the obligations of this agreement towards every person having access to the MATERIAL and/or to the INFORMATION.

6 The obligations of confidentiality of the parties in this agreement do not apply to the INFORMATION and to the MATERIAL:

- which are in the public domain at the time of their disclosure by one of the parties;

- which fall in the public domain without any breach of this agreement;

- which were legally supplied by a third party not being submitted to obligations of confidentiality;

- which are already known by SENDER and/or the Recipient before the coming into force of this agreement without having been communicated, directly or indirectly, by one of the parties.

7 The results stemming from this agreement, obtained by the Recipient, can not be revealed to third parties without the preliminary and written agreement by SENDER. SENDER and the Recipient will determine together if results can be the subject of an oral or written communication and which authors of every party, will be joint authors. In all the publications concerning the use of the MATERIAL and/or the INFORMATION, the Recipient should make reference to the source SENDER of the MATERIAL.

8 The MATERIAL supplied here is of experimental nature. SENDER gives no warrantee or representation as for its utility, efficiency, merchantability, non-toxicity, safety, fitness for a particular use. SENDER declines any liability or responsibility concerning any and all damages caused by the MATERIAL and the INFORMATION, and by the use which could be made of it. SENDER makes no representation or warranty that the use of the MATERIAL and/or INFORMATION will not infringe any patent or other proprietary right.

9 This agreement will come into effect in the date of its signature, for a duration of two (2) / five (5) years[6]. At expiry of this Agreement, SENDER can ask to the Recipient to restore the MATERIAL or to destroy it, as well as any derived material. In any case, the obligations of confidentiality and secret contained in this agreement will be maintained as long as the INFORMATION and the results will not have fallen in the public domain.

10 This agreement is submitted to the French law. The parties will do their best to resolve amicably any dispute as for the interpretation or the performance of this agreement. In case of persistent disagreement, the parties will submit this one to the French courts

In witness whereof, this agreement has been drawn up in two original copies.

Done in PARIS, on

THE RECIPIENT **SENDER**

WORLD FEDERATION FOR CULTURE COLLECTIONS (WFCC)

Building TRUST

Implementing the Nagoya Protocol in microbiology

Philippe Desmeth
President World Federation for Culture Collections

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Context

Since the mission of culture collections is to provide facilitated access to both technically and legally fit-for-use microbiological resources, it is not surprising that several initiatives to translate the ABS principles into practice were taken proactively in the culture collections community. The outcomes of these various initiatives represent a set of coherent and complementary tools to implement the ABS concept:

- The Code of Conduct **MOSAICC**[1] (Micro-organisms Sustainable use and Access regulation International Code of Conduct) listed on the website of the CBD.
- The **MOSAICS** Integrated Conveyance System[2].
- The innovative concept of "**bundle of rights**"[3]**.**
- The design of "**microbial commons**"[4] for the exchange of (micro) biological material which would provide basic common use principles for access to both material and information.

Although developed before the Nagoya Protocol, they are valid and relevant solutions for microbiologists. Furthermore, these solutions will be improved now that the Nagoya Protocol proposes a precise legal framework to abide by. Legal developments in Europe show that the important role of culture collections, as well as other *ex situ* conservation facilities such as botanical gardens and museums is recognized to the extent that it could be included in regulations via the concept of "trusted sources".

Through the **World Data Centre for Micro-organisms (WDCM)**[5] databases system and the assignment of Globally Unique Identifiers (GUIDs) specific to microbial items, WFCC contributes to build a transparent, safe and sustainable handling system of microbial diversity worldwide. A major programme has been launched by WDCM under the aegis of WFCC: the **Global Catalogue of Microorganisms (GCM)**[6]**.** GCM is a scientific tool as well as a way to build safe, ethical and socio-economically balanced ABS processes at global level.

The World Federation for Culture Collections (WFCC) works towards the development of a system incorporating these developments, combining adapted legal concepts and bioinformatics.

TRUST

During the NITE BRC 10th anniversary Symposium "Impact of Nagoya Protocol on Management of Biological Resource Center" held in Tokyo, on 6 December 2012, several players in microbiology, including culture collections, have decided to build TRUST, literally and practically, because trust is a prerequisite for lasting cooperation and because trust can be attained partly through transparent system of transfer of microbial material.

TRUST stands for TRransparent User-friendly System of Transfer for Science & Technology. It aims at managing the incidence of the CBD and Nagoya Protocol on the scientific, technical and administrative activities of culture collections, more generally, on the daily life of microbiologists.

TRUST is much more than a code of conduct. It is an integrated system having as backbone the Global Catalogue of Microorganisms and making use of the expertise gained by MOSAICC, MOSAICS, and other initiatives. The work programme comprises five priorities:

1. Rearrange the findings of MOSAICC and adjust its logical flow chart to the structure of the Nagoya Protocol.
2. Refine specific procedure and make them more efficient in light of the past experience and additional Nagoya Protocol obligations.
3. Taking into account the latest developments in science, culture collections should
    a) make use of the latest ICT technology to develop necessary identification and tracking system; for scientific purposes first but also for any other bona fide ends.
    b) conduct and facilitate research in genomics and functional genomics, thus develop capacities of storage and processing of genomic, transcriptomic and metabolomic information. These compiled information improves definite characterization of microbial resources.
    c) such efforts should be conducted increasingly in networks, in conformity with NP provisions on Technology Transfer, collaboration and cooperation.
4. Considering the concept of "trusted sources" as coined by Australian experts and as defined by the draft EU regulation implementing the Nagoya Protocol, culture collections have to develop an efficient strategy to deal with administrative handling of transfers of material, especially the compulsory Prior Informed Consent. The concept of "trusted sources" on ABS should be imbedded into the culture collections community. It is of primary importance that:
    a) Every microbial genetic resource "entering" a collection is covered by a PIC obtained at the time of its isolation from *in situ* conditions or after corrective administrative action.
    b) Every microbial genetic resource having entered a collection with the appropriate initial PIC may be distributed without any additional PIC procedure set by the country of origin or the country of use.
5. Foster cumulative research by linking scientific publication, microbial material and data via referencing of microbial strains, that is using GUIDs such as strain number. Authors should refer to the strain number of the microorganisms they are describing in their scientific papers both to help make ABS real and to facilitate further research based on their findings.

The TRUST work programme is executed with the voluntary contribution of experts having attended the NBRC workshop and the participation of other invited contributors.

TRUST is planned to run for 1 ½ year (December 2012 - September 2014) with 3 main workshops (Tokyo, Shanghai, Brussels).

The Brussels workshop is programmed on 15 and 16 May 2014. You are kindly invited to participate. We are convinced that the Commission on Genetic Resources for Food and Agriculture is part of the solution.

Philippe Desmeth

Brussels, 14 March 2014

(WFCC)

[1] MOSAICC recommendations facilitate access to microbial genetic resources (MGRs) and help partners to make appropriate agreements when transferring MGRs, in the framework of the (CBD) and other applicable rules of international and national laws.

[2] MOSAICS stands for "Microorganisms Sustainable use and Access management Integrated Conveyance System". It was funded by Directorate General Research of the European Commission under the Sixth Framework Program. The consortium of the MOSAICS project is made of partners from developed and developing countries, including culture collections, international organizations, branch federations and specialized research institutes. Already in 1999, the MOSAICC project had identified three necessary features for a system to implement coherently the CBD provisions on ABS. MOSAICS central objective is the development of such an integrated conveyance system that:

- has reliable tools to evaluate the economic value of microbiological resources (EVA)
- disposes of validated model documents with standard provisions to enable tracking via an uncomplicated procedure, widely applied by microbiologists (ADAM)
- combines valuation and tracking in one system for trading of microbiological resources, with balanced benefit sharing for those that are entitled to be rewarded for the services and products they provide to society (ICS).

[3] The innovative concept of "bundle of rights" is a dynamic model of ownership management moving away from the static concept of ownership towards a flexible allotment of rights. Ownership constitutes a "bundle" of use and decision rights that are attributed to a number of stakeholders / economic agents. It is a set of operational and collective choice rights defining respectively who decides upon the use that one can make of a resource, and who decides upon the future exercise of the rights on the resource. Such scheme allows multi-ownership of a gradual level of use and decision rights. These rights can begin with basic access rights, encompassing research delivering outputs to the public domain, distribution on to third parties, exploitation rights to develop intellectual property and its ownership which may include reach through rights. Furthermore, the application of the "bundle of rights" makes possible the enforcement of the "sovereign rights of States over their natural resources" without prejudice to private rights. Unambiguous allotment of rights in advance will facilitate rightful benefit sharing "at the end of the pipe".Dedeurwaerdere Tom. Understanding ownership in the knowledge economy: the concept of the bundle of rights. BCCM News Edition 18 - Autumn 2005.

[4] This development will be complementary to the national regulations on ABS and to existing IPR laws, as it will constitute a demarcated space where material and information are relatively freely accessible provided that the outputs is injected back in this open space, to be shared again . Inside this space access and benefit-sharing are "commonly shared". Outside this demarcated space, access and benefit-sharing will be ruled through ordinary national and international laws, including IPR and specific CBD inspired regulations.
See http://www.thecommonsjournal.org/index.php/ijc/article/view/215/144

[5] The World Federation for Culture Collections (WFCC) has developed a pioneering database system by registering its members through a unique acronym and numerical identifier in its official list and urging them to catalogue their microbiological resources. This system is maintained and improved by the World Data Centre for Micro-organisms (WDCM). Combining the WDCM system and the use of more recent technology of electronic markers called "Globally Unique Identifiers (GUIDs)" set up a robust system to organise transfers of (micro) biological items, tracking the flow of resources and related information. This system also facilitates the application of ABS since it can potentially retrieve all kinds of information about microbiological resources, including information related to the location and movements of the resource. Combining the WDCM system and the use of more recent technology of electronic markers called "Globally Unique Identifiers (GUIDs)" set up a robust system to organise transfers of (micro) biological items, tracking the flow of resources and related information. The WDCM portal acts as an information broker between all online catalogue entries of the culture collections. See http://www.wdcm.org and http://bccm.belspo.be/projects/mosaics/reports/files/ics_report.pdf7.

[6] The increasing demands on culture collections for authenticated, reliable biological material and associated information have paralleled the growth of biotechnology. In the WFCC guidelines, it is pointed out that collections should publish online or printed catalogue regularly to disseminate information of strains to promote scientific and industrial usages of holdings. However, according to the statistics, only nearly one-sixth of collections registered in CCINFO have their online catalogue, which greatly hinders the visibility and hence the accessibility of strains. WDCM will construct a data management system and a global catalogue to help organize, unveil and explore the data resources of its member collections. The WFCC Global Catalogue of Microorganisms is expected to be a robust, reliable and user-friendly system to help culture collections to

manage, disseminate and share the information related to their holdings. It also provides a uniform interface for the scientific and industrial communities to access the comprehensive microbial resource information.