International exchange of genetic resources between Brazil and the European Union: building bridges to facilitate the path of research and development

Report on the Brasília workshop

7-10 June 2016, Brasília

Kate Davis and Paulo Holanda
Project Consultants

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IDENTIFICATION

Report of the workshop 'International exchange of genetic resources between Brazil and the European Union: building bridges to facilitate the path of research and development' as part of the Project under the 8th EU/Brazil Sectorial Dialogue Support Facility.

Project:
Implementation of the Nagoya Protocol about the Access and Benefit Sharing – Fourth Phase | MMAA-0019
Dialogue:
Environmental Dimension of Sustainable Development

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Ministry of Science, Technology, Innovation and Communication

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OBJECTIVES

To stimulate scientific and technological exchange between Brazil and the European Union via robust and simplified mechanisms and tools to comply with the Nagoya Protocol, with a view to increase the interest and investment on knowledge and bioprospecting of the Brazilian Biological Diversity, contributing to its conservation and sustainable use.

Specific Objectives:

- To characterize the main features and properties of a tracking and monitoring system for the providers and users of genetic resources that are effective, practical and acceptable in terms of cost-benefit.
- To determine what are the necessary workflows to manage such a system, and discuss and characterize their main features to ensure practical implementation, including through interoperability with other systems, such as the ABS Clearing House of the Convention on Biological Diversity.

ACTIVITIES

Pre-workshop activities

Before the workshop, a background paper entitled *'Monitoring requirements of the Nagoya Protocol and new EU and Brazilian legislation, and existing sectoral workflows for tracking ABS information: a preliminary analysis'* was distributed to the participant group to provide information on ABS monitoring requirements and sectoral tracking practices.

Workshop activities

The workshop comprised formal presentations on the first day, followed by discussion between working group participants on Day 2 and Day 3, and a final day featuring the transmission of the results of the working group in a public communication seminar. The working group included the speakers and several additional designated participants from Brazilian agencies, universities and the private sector. The workshop timetable, including formal presentations, is provided as Annex 1.

Day 1 – 07 June 2016: Formal presentations

The event was opened by representatives from Embrapa, the Delegation of the European Union in Brazil (DELBRA); the Ministry of Planning, Development and Management; the Ministry of Science, Technology, Innovation and Communication; the Ministry of Environment; and Fiocruz.

After presentations on the Nagoya Protocol and the new European Union Regulation implementing the Nagoya Protocol in the Union, EU sectoral representatives presented short talks on best practices and other tools for managing ABS in a range of European genetic resource collections, including natural history museums, botanic gardens and microbial resource collections; a final presentation gave a European private sector (industrial biotechnology) perspective.

The next section featured a presentation from the Brazilian Ministry of Environment and chair of CGEN on the Brazilian law on ABS, followed by presentations on procedures and standards for the exchange of Brazilian biological resources by representatives of the Brazilian Societies of Zoology, Botany and Microbiology. The session finished with presentations on the handling of genetic resources in research and development and a Brazilian private sector perspective on the handling, transfer and use of genetic resources in product development.

The day ended with short presentations and a cross-agency panel discussion on the regulations of Brazilian agencies on collection, access, shipping, transfer and transport abroad of biological resources.

Day 2 – 08 June 2016: Working group discussions

The workshop's formal presentations concluded with a presentation on the implementation of the Nagoya Protocol and EU Regulation in Germany, setting out compliance and awareness-raising measures.

Working group discussions began with the presentation of the background paper by the consultants, highlighting for participants (a) differences in the use of terms, such as 'access'; (b) the gaps and bridges between the EU Regulation and Brazilian Laws as preliminarily identified by the consultants; (c) the differences between *monitoring* the function of a system, *tracking* the course of an object and *tracing* back to origin, and the extent to which the different sectors examined are able to track or trace genetic resources and information; and (d) questions that emerged for discussion in the working group.

The co-chairs for the working group were Manuela da Silva (Fiocruz) and David Smith (CABI). The project team, led by Eliana Fontes (Embrapa) decided to conduct the discussions in the larger group, with translation, as far as possible (with the option of using break-out groups if necessary).

Due to the very recent release of the Decree, the working group was given the opportunity to seek clarification from the representatives of the Ministry of the Environment as to how the new Brazilian access system is envisioned to function, to provide firmer ground for subsequent discussion of all other questions.

The other questions addressed in this section were:

- What is the **purpose of monitoring and tracking** genetic resources, from the Brazilian perspective?
    - What is important for Brazil to know and potentially control?
- What are the **characteristics of a workable** tracking/traceability system?
    - What level and kind of tracking/tracing is needed for compliance with Brazilian and EU monitoring requirements? What could the simplest system that would meet Nagoya Protocol/EU/Brazil requirements look like?
- What **identifiers** are needed for the ABS system to work?
    - Do identifiers need to be globally unique?
- What is the role of **best practices** in the tracking/monitoring context?
    - Should/can best practices be imposed? What are the barriers to implementing best practices?

Gaps and bridges between the Brazilian and EU systems were further identified and highlighted over the course of the discussions.

Day 3 – 09 June 2016: Working group discussions and recommendations

Working group discussions continued during the morning of Day 3, with further exchanges regarding the Brazilian system, and responses to the questions:

- How can the Brazilian **Material Transfer Agreement (MTA)/model contractual clauses** bridge the gaps between the Brazilian law and EU regulation?
    - What model/standardised MTA clauses would facilitate sectoral tracking/tracing?
- What **interactions**/communications are needed on the Brazilian side, between what entities, to enable monitoring and tracking/tracing *and* facilitate exchange, utilisation and benefit-sharing?

Following the conclusion of the questions-based discussions, the project team and co-chairs developed draft recommendations drawn from the points raised, for discussion by the working group during the last half-day. The major points raised and recommendations are provided below in the Results section.

Day 4 – 10 June 2016: Preparation of presentation on the results, and public seminar

During the morning, the project team, MMA representatives and EU participants prepared linked presentations to share the concept and results of the project, and the Nagoya/Brazil/EU legal framework, via the final public communication and awareness raising seminar.

The final seminar was opened by Dr Maurício Antônio Lopes, President of Embrapa. The results were presented by the project team and representatives from the CBD Secretariat, the German government, the EU private sector and DPG/MMA. Following the project presentation, there was debate and discussion with the audience, which included representatives from government ministries and agencies, industry, biological collections, museums and legal consultants.

RESULTS

Points arising from discussion of the new Brazilian system

- DPG/MMA emphasised that the information that users provide via registrations and notifications to SISGen operates as a first party declaration of trustworthiness, and the receipts provided by SISGen are sufficient evidence of compliance with Brazilian legislation. However, clarification and consent is needed from the National Focal Point, because there is currently an understanding that only the Certificate of Access Regularity could be sent by the NFP to the ABS-CH. Brazil will need to define which document will be used to generate an IRCC on the ABS-CH (assuming Brazil will become a Party to the Nagoya Protocol), as the IRCC is a key element for international tracking.

- The process for internal verification by CGen of the SISGen registrations and notifications also requires further clarification from CGen; for example there was uncertainty as to what situations might require users to show evidence of verification, how long the process would take, what document would result and how it could be used.

- Only Brazilians can register access (*research and development*, in the Brazilian context) and shipment; this point was identified as a potential problem and gap for tracking downstream;

although this requirement exists to ensure Brazilian involvement in research and technological development, it may need to be re-considered when there is more experience with SISGen.

- A foreigner needs to be associated with a Brazilian institution to conduct access. Shipment registration is required when genetic resources will be accessed abroad and/or kept abroad with the intention of future access, and signifies a transfer of responsibilities for the resources from the Brazilian party to the foreign party. Shipment and access are independent events triggering different registration events and numbers. If a Brazilian researcher is collaborating with a foreign institution, then access registration (for the Brazilian party) is necessary before shipment. If the research is only conducted abroad, without active involvement from the Brazilian party, a shipment registration alone (but made by the Brazilian sender) is sufficient.

- For some international exchanges, where access is not immediately foreseen (e.g. museum collections for non-molecular taxonomic work), the curator may not need to register a shipment under Law 13.123, but the material is intended to remain abroad, and could be available for access. In such cases, it is advisable to register the shipment and issue an MTA with a clause stating that the foreign user must come back to the Brazilian collection for the latter to register access if it does occur.

- Participants were concerned over how loans would be covered by the new law. It was clarified that a Brazilian curator should register a loan as a shipment (when SISGen is operational), transferring the responsibility for the material to the foreign collection. While SISGen is in development, DPG/MMA advises providers and users to set out their responsibilities and the conditions of use in written documents to establish evidence of their intention to work under the law. Once SISGen is operational, researchers and curators will have up to one year to regularise access and shipments.

- Greater clarity is needed regarding how taxonomic activities are covered by Law 13.123 (e.g. whether any strictly phenotypic research is covered), and whether the uploading of sequences onto international databases (GenBank, BOLD etc.), or the download of such sequences for research, is covered.

- There were some questions as to how the notification process will work at the end of the utilisation chain, for example who will fill in the notification, whether SISGen might be adjusted to allow foreigners to make notifications, and how a foreign manufacturer that has not participated in the research/technological development is to develop a benefit-sharing agreement.

- There were also concerns about how suppliers of intermediate products (e.g. guaraná extract) are covered by the law, and what their responsibilities will be – for example if they will need to ask their customers whether access will be conducted. The law does not require a shipment registration for export of intermediate products, but there is a risk that IBAMA and VIGIAGRO may stop batches of such material (not intended for access) at Customs surveillance and impose fines on the supplier if there is uncertainty as to its eventual use. It is important to clarify what documentation should accompany the material in these cases. According to DPG/MMA, control is only required when the final product enters Brazil for commercialisation, and the provider of intermediate products only has

responsibilities when it is linked (as a business partner, not as a supplier) to the foreign manufacturer of the finished product (Law 13.123, Art.17).

- There was also concern from a private sector supplier that they might be considered as a 'linked' institution under the law and thus they may be jointly liable for benefit-sharing requirements arising from eventual economic exploitation of a product manufactured abroad; it was clarified that this would not be the case.

- In the case of product registration (e.g. for pesticides, drugs, vaccines, medicines, cosmetics) the access registration and/or product notification will be required by the relevant regulatory agency (such as those in MAPA, or ANVISA). Regulatory agencies may in some cases require a deposit of a subsample in a national collection when a product is registered; this action could strengthen tracking of genetic heritage.

- Additionally, other laws and regulations (e.g. Law 1.702/89, Decree 4074/02 and IN 03-ICMBIO) require information such as evidence of origin. The regulatory bodies (such as those in MAPA, or ANVISA), IBAMA, SISGen and SISBio do not have interoperable databases. According to DPG/MMA, interoperability is not a goal of the first phase of SISGen. Acquiring information from some bodies is challenging because CGen does not require all the information that is held and it is difficult to share only pieces.

- Simplification of procedures was encouraged, especially regarding consigned materials (already accessioned and/or catalogued in a national scientific collection), which have already gone through a process, and it was suggested that databases could be integrated, e.g. sharing information on researchers, projects, titles, methodologies, so that researchers fill out fewer and simpler forms. Registration of ex situ collections could provide further opportunities to streamline procedures.

- CGen is developing a manual and FAQ for the SISGen system, Law 13.123 and Decree 8.772, and will fund efforts compliance such as a web portal with ABS information. Law 13.123 is being translated; after that work is finalised, Decree 8.772 will be translated.

- Many of the working group participants expressed views that that the biggest barriers to research collaboration were overlapping, sometimes contradictory, requirements from different agencies and regulatory bodies, as well as different platforms and databases keeping similar information. Some felt that those internal bridges needed to be built before further bridges could be built between Brazil and the EU.

Gaps and bridges between the EU and Brazilian systems

It was made clear that it is likely that Brazil will ratify the Nagoya Protocol before long, an action that will immediately bridge the largest gap between the two systems; other gaps identified in the background paper were raised briefly, but overall the feeling was that the two ABS systems will be complementary, particularly at the end of the chain of utilisation. However, neither addresses the issue of non-user supply chains, and

both systems are also still unclear regarding how they cover the uploading and use of genetic sequence information.

The group agreed that different uses of terms and definitions (e.g. access=acquisition vs. access=utilisation; genetic resources vs. genetic heritage) should be recognised and made explicit whenever possible so that EU users are made aware of their legal responsibilities and Brazilian expectations, for example via a glossary in Brazilian MTAs. Prior informed consent is now only required under Brazilian law with regard to associated traditional knowledge from a known source.

DPG/MMA proposed that the relevant identifier to use for the EU due diligence declarations (when Brazil ratifies the Nagoya Protocol) is the shipment registration receipt number. It has not yet been decided whether the shipment receipt will be the document that will be used to generate the IRCC on the ABS-CH.

Purpose of monitoring and tracking genetic heritage

With DPG/MMA input, the working group understood that the purpose of monitoring and tracking under the new Law 13.123 is:

> **to keep information about Brazilian origin and terms of use associated with the genetic heritage as it is utilised and transferred so that benefit-sharing takes place at the end of technological development**.

The goal is traceability back from the end point to the origin, not tracking of each and every movement (Fig. 1). With this understanding, the working group's discussions (and this project's focus) shifted away from the precise details of tracking mechanisms (e.g. how identifiers are assigned and whether they must be globally unique and persistent) and towards the documentation that will accompany material: registration receipt numbers and the Material Transfer Agreement.

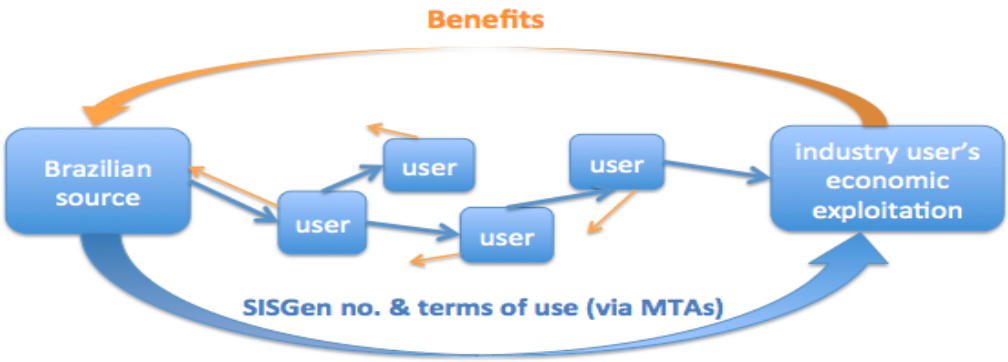

Fig. 1: Traceability, from the endpoint, of Brazilian origin and terms of use (transferred along a chain of custody and utilisation via the SISGen shipment registration receipt numbers and MTAs), to enable the sharing of benefits generated from economic exploitation.

Characteristics of a workable tracking system, and identifiers

To achieve this goal of traceability, the working group agreed on the components of a tracking system:

- A unique identifier to link Brazilian origin and terms of use to genetic heritage;
- A system including a database(s) to link this identifier to samples/individuals/isolates from genetic heritage so that when the final product is developed, the responsibility for benefit-sharing is known;
- Flexibility between different sectors; globally unique identifiers for genetic resources and their derivatives and products are not used by all sectors; locally unique identifiers can provide the required functionality.

DPG/MMA considered that, at this stage, the shipment registration receipt number is probably the most suitable identifier to link to Brazilian origin and terms. However, there was some discussion about how the access and shipment registrations should or should not be linked, and how many registration numbers will be linked with a genetic resource. The working group proposed that the shipment registration receipt number could be linked to the eventual IRCC generated by the ABS-CH by assigning the receipt number as title of the IRCC. At this point, either the receipt number or IRCC number would serve to trace back to Brazilian origin.

Regarding identifiers for genetic resources, the group agreed that globally unique identifiers for genetic resources were not required for compliance with the Brazilian law and EU regulation, although it would be best practice to use them.

Recommendation:

- **A single unique reference number should be identified:**
    - **to be associated with all official documents in Brazil and the EU;**
    - **to be used by researchers and developers in their databases;**
    - **to be used in reports to regulators, publications (including on databases such as GenBank and BOLD), patents or when sharing results.**

Raising awareness, sharing information and building skills

Currently stakeholders in Brazil and the EU know too little about the regulations, what they are for and how they work. As a first step, working group participants will return to their institutions, societies and companies and share information. Other ideas shared in the workshop included: preparation of a fact sheet for researchers, private sector and international partners;

Recommendations:

- **Encourage information exchange, awareness raising and training, to help stakeholders understand the actions they need to take**;

- **Provide official translations (at least into English) of Law 13.123 and Decree 8.772, MTA clauses, explanatory guides, factsheets and other guidance tools, to help foreign users understand their responsibilities.**

Best practices to manage responsibilities

Users do not all understand how to manage their responsibilities. Best practices (and other voluntary compliance tools such as codes of conduct, guidelines and standards) can help to minimise legal and reputational risks and ensure contractual compliance. They can describe what should be achieved, and do not need to be prescriptive; they can help to adapt behaviour to a rigid regulation. They have been shown to be very helpful in a number of different sectors in the EU, such as the TRUST system and MIRRI and OECD best practices for microbial collections, the CETAF and GGBN Codes of Conduct and Best Practices for taxonomic institutions and the Principles on ABS and IPEN for botanic gardens. Best practices have a role in the implementation of the Nagoya Protocol and the EU Regulation and their development is actively encouraged. The group shared examples of how best practices can also help to address the significant gaps in the Brazilian and EU systems regarding their lack of coverage of commercial supply chains (non-user to non-user to user), both by improving supply chain ethics and traceability and by raising the awareness of users sourcing from a supply chain.

The group agreed that a) best practices are a tool that can (and should, for clarity regarding appropriate compliance with the Brazilian law) be recognised by government but they need to grow from the needs and systems of sectors and sectoral networks; b) a sense of appropriateness and ownership will improve buy-in, so Brazilian sectors and networks may prefer to develop their own measures; however c) existing best practices can be used as a basis for development and adaptation (their core elements tend to be very similar), and if they can be used without modification, it might be useful to avoid over-proliferation of best practices.

Recommendations:

- **Brazilian scientists should, in consultation with CGEN:**
    - **review range of existing best practices and guidance from relevant agencies, and**
    - **develop or adopt best practices that fit the ways they work, to facilitate traceability to origin and compliance with terms of use;**
- **CGEN should consider the possibility of recognising such best practices.**

Development of the Brazilian Material Transfer Agreement and model contractual clauses

The MTA plays a central role in Brazilian-EU cooperation, traceability and compliance. It is required for shipment and will convey the terms of use and ABS identifier for a Brazilian genetic heritage sample as it is transferred from a Brazilian entity to a recipient, and, via subsequent MTAs, to subsequent recipients. It will

be used at every transfer (where onward transfer is allowed) and should therefore be understandable, easy to manage and should not hinder work that might lead to benefits for Brazil.

The Brazilian MTA is required by the Decree to hold certain minimum information, including a requirement to comply with Brazilian Law 13.123, but other content can be developed between suppliers and recipients. CGEN will be developing a model, and intends to keep a database of sectoral MTAs, which could effectively become an online repository of model clauses. The mandatory terms could be considered as 'viral', travelling through the whole process. It should also contain options regarding confidentiality.

The development of standard clauses would be helpful for user compliance: standard clauses are much more easily recognised by upstream and downstream users and transmitted between institutional systems. In particular it would be useful to have certain 'lowest common denominator' clauses across sectors, for example to know if material can be loaned or not; if it can be supplied or not; if it can be transferred but reporting is needed before commercial research is undertaken; if material can be sequenced or not; if it can be destructively sampled or not. The more controlled the contractual obligations are, the less productive the collaborations may be; requirements to report routine non-commercial activities/transfers were highlighted by EU participants as being particularly problematic for compliance (for museums and botanic gardens; less so for microbial collections).

The workshop discussed the merits of using an electronic version that would not require the signature and posting of paper documents. Although it is important that the Portuguese language document holds legal status, clause-by-clause translation into English (at least) in the same document could enable the Portuguese version to be signed and the foreign language clauses to be understood, and entered into databases where necessary.

Recommendations:

- **A single MTA should accompany a shipment, to avoid confusion regarding the tracking of multiple MTAs issued by different agencies;**
- **In developing guidance and models for MTAs, CGEN should clarify what content is mandatory and what should be negotiated between Brazilian and foreign partners;**
- **'Standard clauses' should be developed where possible for the non-mandatory content, appropriate to the sectoral use of genetic heritage;**
- **The MTA should include the unique identifier(s) of the genetic heritage for tracking;**
- **Develop an official translation (clause-by-clause);**
- **Include a glossary (e.g. for 'genetic heritage' and 'access');**
- **Explore ways to make model clauses for the non-mandatory content available electronically/online;**
- **Explore development of an electronic/online system to generate the MTAs.**

Communication needed to enable monitoring and facilitate exchange and utilisation: a Task Force

It became clear to all in the working group that information-sharing is needed between different Brazilian agencies and researchers in Brazil and outside, across sectors, to share information and develop tools to ensure that exchange procedures are as simple and effective as possible. The possibility of a CGEN chamber was discussed, but the group decided that a less formalised Task Force would be more appropriate for the task and would be able to initiate work more quickly. An EU counterpart or counterparts could be identified (such as the ABS Consultation Forum) to provide relevant input regarding international exchange and utilisation. Working group members expressed their willingness to take the discussions forward as part of the Task Force.

Options for funding the work of the Task Force, such as costs for participants' travel, were discussed; it was agreed that this implementation would be in the national interest and should seek governmental support. Regarding an international element, the representative of the CBD Secretariat informed the group about potential BioBridge funding from the government of Korea to support activities for scientific and technical cooperation.

Recommendation:

- **Establish a Task Force drawn from all agencies and stakeholders involved with the collecting, transportation and use of biological material, not only access, with the remit to:**
    - **Review existing procedures to seek simplification;**
    - **Develop a decision tree to map the relationships and responsibilities of the different agencies to assist staff and users along the pathway to compliance;**
    - **Identify opportunities to integrate procedures between agencies;**
    - **Identify opportunities to share data and integrate systems to provide a single gateway for users, to optimise efficiency, reduce costs and improve compliance;**
    - **Participate in the sharing of information.**

Acronyms and abbreviations

ABS	Access to Genetic Resources and Benefit-Sharing
ABS-CH	ABS Clearing House
ANVISA	National Agency for Health Surveillance
BOLD	Bar Code of Life Data System
CABI	Centre for Agriculture and Biosciences International
CAR	Certificate of Access Regularity
CBD	Convention on Biological Diversity
CETAF	Consortium of European Taxonomic Facilities
CGEN	Genetic Heritage Management Council
DELBRA	Delegation of the European Union in Brazil
DPG	Department of Genetic Heritage
EU	European Union
FAQ	Frequent Asked Questions
FIOCRUZ	Oswaldo Cruz Foundation
GGBN	Global Genome Biodiversity Network
IBAMA	Brazilian Institute of Environment and Renewable Natural Resources
IRCC	Internationally Recognised Certificate of Compliance
MAPA	Ministry of Agriculture
MIRRI	Microbial Resource Research Infrastructure
MMA	Ministry of Environment
MTA	Material Transfer Agreement
OECD	Organisation for Economic Co-operation and Development
SISGEN	National System of Genetic Heritage Management and Associated Traditional Knowledge
TRUST	TRansparent User-friendly System of Transfer, for Science & Technology
VIGIAGRO	National Agricultural Surveillance System

ANNEXES

Annex 1: Workshop program

Brazil and European Union Dialogue on the Implementation of the Nagoya Protocol
- Exchange of Genetic Resources -
Brasilia, 7-10 June 2016
Location: Auditorium Assis Roberto de Bem - Embrapa Genetic Resources and Biotechnology – PqEB, Avenida W5 Norte (final). Phone: 61 3448 4700

07 June –Tuesday
9:00 – 9:30 Opening
Representatives of DELBRA, MPOG, MCTI, Embrapa, FIOCRUZ e MMA

9:30 – 10:00 Lecture:
The Nagoya Protocol and the progress on the implementation of Articles 19 and 20
Kathryn Garforth – Secretariat of the Convention on Biological Diversity

10:00 – 10:30 - Coffee break

10:30 – 10:50 - Lecture:
EU regulation implementing the Nagoya Protocol in the Union - Ellen Frederichs – German Federal Agency for Nature Conservation

10:50 – 12:35- European Union Presentations

1. Tools for managing ABS: examples from the Consortium of European Taxonomic Facilities and the Global Genome Biodiversity Network. Chris Lyal - Natural History Museum, London

2. National and regional activities to develop best practice for microbial resource collections. David Smith – CABI

3. Collection management and ABS legislation: compliance and implementation. Alan Paton – Royal Botanic Gardens, Kew

4. From "MOSAICC" to "TRUST", a 20 years journey; Nagoya Protocol User Manual. Philippe Desmeth – Belgian Science Policy Office

5. Implementation of the Nagoya Protocol in Germany, supplementary provisions to the EU Regulation – Ellen Frederichs - German Federal Agency for Nature Conservation

6. Private Sector - Consideration and expectation in handling GR in product development, incl. Procedures and Standards. Søren Flensted Lassen – Novozymes A/S

12:35 – 14:00 lunch

14:00 – 14:30 – Lecture:
The Brazilian Law of Access to Genetic Resources and Benefit Sharing – Rafael Marques – Ministry of Environment

14:30-16:00 – Brazil's Presentations

1. Procedures and standards for the exchange of biological resources of Brazilian zoological collections and the new ABS Law - considerations and expectations. Luciane Marinoni – Brazilian Society of Zoology

2. Brazilian ABS legislation: implementation in the botanical gardens and herbaria in Brazil. João Augusto Alves Meira Neto – Brazilian Society of Botany

3. Procedures and standards for the exchange of microbiological resources - what changes with the new ABS Law? André Rodrigues – Brazilian Society of Microbiology

4. Scientific Community - considerations and expectations on handling genetic resources in research and development. Elibio Rech – Brazilian Academy of Science

5. Private sector: considerations and expectations about handling, transfer and use of genetic resources in product development. Elisa Romano – National Confederation of Industry

16:00 – 16:30 – Coffee break

16:30 – 18:00 - Panel: Regulations of Brazilian agencies on collection, access, shipping, transfer and transport abroad of biological resources for different purposes Participants:
- Ministry of Agriculture, Livestock and Supply – Marcos Eielson Pinheiro de Sá
- Brazilian Institute of Environment and Renewable Natural Resources – Natalia Milanezi
- Ministry of Environment: Keize Júnior
- National Agency of Health – Flávia Baptista Nobrega Moreira (a confirmar)
- Chico Mendes Institute of Biodiversity – Rodrigo Jorge
- Ministry of Science and Technology/National Council of Technological and Scientific Development – Carlos Alberto Pitaluga (to be confirmed)
- Post Office – José Maurício de Souza
- Department of Federal Police: Renato M. Arruda

08 June – Wednesday
(restricted section of the working group)

9:00 – 9:30 Presentation of the background paper
Kate Davis and Paulo Holanda

9:30 – 12:30 Working Group
In addition to the speakers, the following are members of the working group:
- Brazilian Society for the Progress of Science: Vanderlan Bolzani
- Embrapa: Eliana Fontes, Dulce Alves, Fábio Macedo, Fernanda Silva
- Fiocruz: Manuela da Silva, Mauricio Sérgio
- MMA: Tiago Farani, Henry Novion
- MCTI: Ricardo Melamed
- Private Sector: Francys Vilela – CESIS; Paula Moura – Grupo Centroflora
- Universities – Luiz Fábio da Silveira (USP), Renata Meira (UFV), Hugo Ricardo Santos (UERJ)

12:30 – 14:00 - Lunch

14:00 – 16:00 – Working Groups

09 June - Thursday
(Restricted Section of the Working Group)

9:00 – 12:30 – Working Groups

12:30 – 14:00 – Lunch

14:00 – 18:00 – Presentation of results and conclusions

10 June - Friday
PUBLIC COMMUNICATION SEMINAR
Brazil-EU Dialogue on the Implementation of the Nagoya Protocol – workshop results

9:00 – 12:00 – Preparation of presentations

12:00 – 14:30 - Lunch

14:30 – 17:30 – Seminar: Public communication and awareness raising seminar
1. Opening by authorities
2. Presentations

Topics:
- The Nagoya Protocol on Access to Genetic Resources and Benefit Sharing
- The Brazilian Law on Access to Genetic Resources and Benefit Sharing – a provider perspective
- The EU Regulation on Access to Genetic Resources and Benefit Sharing – an user perspective
- The EU-Brazil Dialogue on the implementation of the Nagoya Protocol – the workshop results

Speakers:
- Kathryn Garforth, Secretariat of the Convention on Biological Diversity
- Rafael Marques, Departamento do Patrimônio Genético, Ministério do Meio Ambiente
- Chris Lyal –Natural History Museum, London
- Eliana Fontes – Embrapa Recursos Genéticos e Biotecnologia

3. Debates and Discussion with audience
4. Workshop closure

Annex 2: List of working group participants (8-9 June 2016).

European Participants	
Alan Paton	Royal Botanic Gardens, Kew, UK
David Smith	CABI, UK
Ellen Frederichs	German Federal Agency for Nature Conservation, Germany
Kathryn Garforth	Secretariat of the Convention on Biological Diversity, Canada
Philippe Desmeth	Belspo / BCCM - Belgian Science Policy Office, Belgium
Soren Flensted Lassen	Novozymes A/S, Denmark

Brazilian Participants	
Ana Takagaki Yamaguishi	Ministry of Environment, Brazil
André Rodrigues	Brazilian Society of Microbiology, Brazil
Dulce Alves	Embrapa Cenargen, Brazil
Fernanda Silva	Embrapa Cenargen, Brazil
Francine Leal Franco	GSS Sustentabilidade e Bioinovação, Brazil
Francys Vilela	CESIS Ltda., Brazil
Gutemberg Delfino Sousa	Ministry of Science, Technology, Innovation and Communication, Brazil
Hugo Ricardo S. dos Santos	State University of Rio de Janeiro, Brazil
João Augusto Alves Meira Neto	Brazilian Society of Botany, Brazil
Luciane Marinoni	Brazilian Society of Zoology, Brazil
Manuela da Silva	Fiocruz, Brazil
Maurício Sérgio	Fiocruz, Brazil
Paula Tavares Moura	Grupo CentroFlora, Brazil
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