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The International Treaty ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

INTERNATIONAL TREATY ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

FOURTH MEETING OF THE AD HOC TECHNICAL COMMITTEE ON SUSTAINABLE USE OF PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

FIRST ELECTRONIC CONSULTATION

8 April–5 May 2019

Report

I. Opening of the Electronic Consultation

1. Through Resolution 6/2017,[1] the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture (International Treaty) reconvened the Ad Hoc Technical Committee on Sustainable Use of Plant Genetic Resources for Food and Agriculture (the Committee).

2. The Governing Body also decided that the Committee "..will work electronically and, if needed, may hold one meeting in the biennium 2018–2019, subject to the availability of financial resources". Due to the lack of funds, the Committee met once by means of an an electronic consultation among members and experts of the Committee from 8 April to 5 May 2019. The documents of the meeting are available on the website of the International Treaty, as is the list of participants.

3. For each of the issues for consideration during the electronic consultation, the Secretariat, with the guidance of the Co-Chairpersons, prepared a short introduction to inform the Committee Members and Experts about the work and activities to date. A number of questions on each topic were posed, and the members were invited to provide a response to these. The responses are summarized in *Annex I* to the Summary made by the Co-Chairpersons.

II. Election of Co-Chairpersons

4. The meeting confirmed Mr Riccardo Bocci (Europe Region) and Mr William Wigmore (South West Pacific Region) as Co-Chairpersons to guide the proceedings of the meeting.

[1] Resolution 6/2017 www.fao.org/3/a-mv086e.pdf

III. The Electronic Consultation using the D-Group online platform

5. The Electronic Consultation gathered inputs from the Members and Experts of the Committee through the D-Group online platform.[2] Membership of the D-Group platform was limited to the Committee Members and Experts, and the Secretariat. The Members and Experts, within the given time frame, shared and posted views and responded to questions posted by the Secretariat.

6. Members and Experts were invited to advise on:

- Implementation of the Programme of Work on Sustainable Use of Plant Genetic Resources for Food and Agriculture and Supporting Initiatives;
- Cooperation with other international processes and institutions in the field of sustainable use of PGRFA;
- Identification of additional activities and synergies within the Programme of Work, and between the Programme of Work and other areas of work of the International Treaty.

And to respond to questions about:

- Elements of a draft Proposal for a new Programme of Work on Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture and Supporting Initiatives 2020–2023;
- Proceedings of the Informal Meeting of Experts 'Exploring possible elements of a Joint Programme on Biodiversity in Agriculture for Sustainable Use of PGRFA 2020–2030';[3]
- A draft survey on Technology Transfer.

IV. Outcomes and preparation for the Eighth Session of the Governing Body

7. The outcomes of the Electronic Consultation were summarized by the Secretariat under the guidance of the Co-Chairpersons, and would be used as a basis for the preparation of the document for the Eighth Session of the Governing Body on the Implementation of Articles 5 and 6, Conservation and Sustainable Use of PGRFA, including draft elements for a possible Resolution for its consideration. According to the outcomes of the consultation, the advice provided and the Co-Chairs' guidance:

a) The Secretariat is invited to continue collaborating with a broad range of partners, institutions and initiatives for implementation of the Programme of Work 2016–2019 and related activities.

b) The Toolbox for Sustainable Use of PGRFA, its functions and contents are considered to be very helpful, and the Secretariat is invited to further develop it to present experiences, lessons learned and views on implementation of Articles 5, 6 and 9.

c) In advancing the role of the Platform for the Co-Development and Transfer of Technology, topics discussed during the electronic consultation of the Committee included the possible launching of a survey to identify the gaps between 'available' and 'needed' technologies for implementation of Article 6. The majority of the Committee members and experts considered

[2] https://dgroups.org/fao/itpgrfa/acsu
[3] www.fao.org/3/CA2208EN/ca2208en.pdf

the survey to be unnecessary, instead suggesting that efforts should focus on furthering the role of the Platform, such as by facilitating partnerships and increasing collaboration in technology co-generation and technology transfer. It would therefore be appreciated if the Governing Body would advise on the opportunity and necessity of relaunching the Platform, including outside the possible Programme of Work 2020–2023.

d) The Secretariat is committed to organizing Regional Training Workshops on the Conservation and Sustainable Use of PGRFA and Farmers' Rights, and it is invited to organize, subject to the availability of financial resources, another round in the context of the proposed Programme of Work 2020–2023.

e) The two International Symposia to be organized in cooperation with the Commission on Genetic Resources for Food and Agriculture would be greatly welcome. Key outcomes of the proposed symposia could include setting priorities for future work, and preparation of a summary statement on the importance of on-farm management of farmers' varieties/landraces and *in situ* conservation of crop wild relatives and wild food plants for current and future food security.

f) The Joint Programme on Biodiversity in Agriculture for Sustainable Use of PGRFA should be incorporated into the proposed Programme of Work 2020–2023. Such a Joint Programme can offer an opportunity to build on the work of the current programme, and form broader partnerships that raise the profile of PGRFA and the Treaty.

g) The proposed Programme of Work 2020–2023 should provide a more comprehensive linkage between the 'conservation' and 'sustainable use' of PGRFA, in accordance with the recognition that sustainable use should not be considered as a stand-alone activity, but rather as being closely linked to the conservation of PGRFA. Therefore, the 'Vision, Mission and Goals', as well as the 'Components and Outcomes' (GB 9–2021 and GB 10–2023) have been adapted accordingly.

V. Report of the Electronic Consultation

6. The Report will be made available for written comments by Contracting Parties and relevant stakeholders.

Appendix

FOURTH MEETING OF THE AD HOC TECHNICAL COMMITTEE ON SUSTAINABLE USE OF PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

Electronic Consultation (8 April–5 May 2019)

Summary by the Co-Chairpersons

I. Introduction

1. Through Resolution 6/2017,[4] the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture (International Treaty) reconvened the Ad Hoc Technical Committee on Sustainable Use of Plant Genetic Resources for Food and Agriculture ('the Committee'). In accordance with its Terms of Reference, the Committee shall provide advice to the Secretary on:

- implementation of the Programme of Work on Sustainable Use of Plant Genetic Resources for Food and Agriculture and Supporting Initiatives;
- cooperation with other international processes and institutions in the field of sustainable use of PGRFA;
- identification of additional activities and synergies within the Programme of Work, and between the Programme of Work and other areas of work of the International Treaty.

2. An electronic consultation among members and experts was organized from 8 April to 5 May 2019. In order to facilitate the consultation, an online platform was established where, within the given time frame, members and experts shared or posted views, documents, and/or responses to questions.[5] The Committee unanimously decided to reconfirm Mr Riccardo Bocci (Italy) and Mr William Wigmore (Cook Islands) as Co-Chairpersons of the Committee to guide the proceedings.

3. Members and experts, in addition to their Terms of Reference of the Committee, were invited to consider and advise on:

- The Proceedings of the Informal Meeting of Experts 'Exploring possible elements of a Joint Programme on Biodiversity in Agriculture for Sustainable Use of PGRFA 2020–2030';
- A draft Proposal for a new Programme of Work on Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture and Supporting Initiatives 2020–2023;
- A draft survey on Technology Transfer.

4. This document was prepared by the Co-Chairpersons of the Committee, Mr Riccardo Bocci (Italy) and Mr William Wigmore (Cook Islands), as a summary of the electronic consultation, with the support of the Secretariat.

[4] Resolution 6/2017 www.fao.org/3/a-mv086e.pdf
[5] Available at: https://dgroups.org/fao/itpgrfa/Committee

II. General advice from the Members and Experts

The Programme of Work on Sustainable Use of Plant Genetic Resources for Food and Agriculture and Supporting Initiatives (2016–2019)

5. The Programme of Work should be continued for the advancement of breeding and proper utilization of plant genetic resources **(**PGR) by scientists and smallholder farmers.

- To support implementation of Programme of Work, it is important to include support to smallholder farmers who are maintaining and developing PGRFA.
- Account should be taken of the ongoing processes in the Commission on Genetic Resources for Food and Agriculture (CGRFA), and the next Programme of Work aligned with the State of the World's Biodiversity for Food and Agriculture.
- There should be provisions for updating the Toolbox, as the technological and scientific advancements associated with PGRFA are expected to evolve.
- A comprehensive national programme should be set in place, with funding for the conservation and sustainable use of PGRFA, with the involvement of national and local stakeholders.

Cooperation with other international processes and institutions in the field of sustainable use of PGRFA

6. Cooperation should be strengthened:

- to promote collaboration between the Secretariats of the International Treaty and the CGRFA and avoid duplication of efforts;
- to promote collaboration and coordination with processes that are relevant to the CGRFA and the Convention on Biological Diversity (CBD), and to promote collaboration between Contracting Parties, CGIAR Centres and genebanks;
- to build the capacity of national agricultural research systems, and to promote collaboration with grassroots organizations in addressing production concerns in marginal areas through participatory and/or evolutionary plant breeding (PPB, PEB);
- to promote cooperation and form partnerships for the conservation and sustainable use of PGRFA, reaching out to other United Nations bodies, relevant processes and governmental, non-governmental multilateral organizations working on nutrition, climate resilience, disaster preparedness and relief.

Additional activities and synergies within the Programme of Work and other areas of work of the International Treaty

7. Identification of such activities and synergies should:

- Include other areas of work of the International Treaty.
- Highlight the work on Farmers' Rights and the Benefit-sharing Fund (BSF).
- Emphasize that the effective implementation of Articles 5, 6 and 9 can be greatly enhanced through the BSF and by targeting smallholder farmers as direct beneficiaries.
- Strengthen implementation of activities and synergies with the ones established in the 2nd Global Plan of Action (2 GPA).
- Underscore that future production of food and feed must not contradict the conservation and sustainable use of PGRFA, and that it may therefore be useful to look at models other than the small-scale farmer, since additional approaches for sustainable use may need to be developed.

III. Elements of a draft Proposal for a new Programme of Work on Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture and Supporting Initiatives 2020–2023

8. The proposed Vision, Mission and Goals, the components and expected results are aligned with the needs of the Contracting Parties and relevant stakeholders. Suggestions and proposals were made by the members and experts, and will be reflected in the Report on Conservation and Sustainable Use of PGRFA being prepared for the Eighth Session of the Governing Body, as well as in the Report of the Ad Hoc Technical Committee on Sustainable Use of PGRFA.

IV. Proceedings of the Informal Meeting of Experts 'Exploring possible elements of a Joint Programme on Biodiversity in Agriculture for Sustainable Use of PGRFA 2020–2030'[6]

9. The members and experts mostly agree on the four thematic areas, and on the possibilities that these can be mainstreamed into national and local Plans and Programmes.

10. Constructive and valid proposals were made regarding the prospective five objectives of the Joint Programme on Biodiversity in Agriculture for Sustainable Use of PGRFA 2020–2030, and on how they can be implemented within the existing national systems.

V. Draft survey on Technology Transfer

11. The survey would seem to be unnecessary for implementation of Article 6 of the International Treaty.

12. More details on topics III, IV and V are listed in Annex I of this summary.

VI. Guidance provided by the Co-Chairperson in preparation for the Eighth Session of the Governing Body

13. Taking into consideration the range of views expressed and inputs made during the consultation, the Co-Chairpersons provided the following elements of guidance to be taken into account in the preparation of the relevant documents and materials for the Eighth Session of the Governing Body:

- The Secretariat is invited to continue collaborating with a broad range of partners, institutions and initiatives for implementation of the Programme of Work 2016–2019 and related activities.
- The Toolbox for Sustainable Use of PGRFA, its functions and contents are extremely helpful, and the Secretariat is invited to further develop it to show experiences, lessons learned and views onimplementation of Articles 5, 6 and 9.
- In advancing the role of the Platform for the Co-Development and Transfer of Technology, topics discussed during the electronic consultation of the Committee included the possible launching of a survey to identify the gaps between 'available' and 'needed' technologies for

[6] www.fao.org/3/CA2208EN/ca2208en.pdf

implementation of Article 6. The majority of the Committee's members and experts considered the survey to be unnecessary, instead suggesting that it should focus on furthering the role of the Platform, such as by facilitating partnerships and increasing collaboration in technology co-generation and technology transfer. It would therefore be appreciated if the Governing Body would advise on the opportunity and necessity of relaunching the Platform, even outside the new Programme of Work 2020–2023.

- The Secretariat is committed to organizing a Regional Training Workshop on the Conservation and Sustainable Use of PGRFA and Farmers' Rights, and it is invited to organize, subject to the availability of financial resources, another round in the proposed new Programme of Work 2020–2023.

- The two International Symposia to be organized in cooperation with the Commission on Genetic Resources for Food and Agriculture will be greatly welcome. Key outcomes of the proposed symposia would include setting priorities for future work, and preparation of a summary statement on the importance of on-farm management of farmers' varieties/landraces and *in situ* conservation of crop wild relatives and wild food plants for current and future food security.

- The Joint Programme on Biodiversity in Agriculture for Sustainable Use of PGRFA should be inserted in the new Programme of Work 2020–2023. Such a Joint Programme can offer an opportunity to build on the work of the current programmes, and form broader partnerships that raise the profile of PGRFA and the Treaty.

- The elements of a draft Programme of Work 2020–2023 should provide a more comprehensive linkage between the 'conservation' and 'sustainable use' of PGRFA, in accordance with the recognition that sustainable use should not be considered as a stand-alone activity, but rather as being closely linked to the conservation of PGRFA. Therefore, the 'Vision, Mission and Goals', as well as the 'Components and Outcomes' (GB 9–2021 and GB 10–2023) have been adapted accordingly.

Annex I

Draft Elements for a new Programme of Work on Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture and Supporting Initiatives 2020–2023

Questions	**Response**	**Comments/Suggestions**
Are the proposed Vision, Mission and Goals aligned with expectations?	Yes	- Regarding the Vision: Why only 'in farming systems'? The role of researchers and breeders is relevant to Articles 6.b, 6.c, 6.d and 6.g. I suggest that the vision is not limited to the use of PGRFA in farmers' systems. - Comments on the Goals: - I suggest the following language instead: "to <u>support and monitor efforts</u> to implement Arts. 5, 6 and 9 by contracting parties". - Does not make much sense to me. Policy guidance is not provided by monitoring. Guiding and monitoring are different things. I suggest that this goal be deleted. - I would rather say "<u>To guide</u> technology support and expertise provided by FAO…" - I suggest the following wording: "<u>To support implementation</u> of the objective…" The Programme of Work cannot be made responsible for implementation, but only for supporting implementation by those who have obligations under the Treaty. - Current efforts are mostly project-based; it should be supported by the government. - Who does what and through which processes? The roles of stakeholders should be defined. - Suggested a minor change in the vision statement "*Plant genetic resources for food and agriculture are conserved and used sustainably in* ex situ *genebanks and in farming systems, in accordance with Articles 5, 6 and 9, to enable more inclusive, sustainable and efficient agricultural and food systems at local, national and international levels*". - Components and expected results (table) row 1, column 3, the additional reporting appears to be a duplication of the 2nd GPA. - Row 4, column 1, "…and Farmers' Rights" could be omitted, as it is part of the Ad-Hoc Technical Expert Group on Farmers' Rights work; instead it could be replaced with the words: "in the *ex situ* and on-farm context". - Row 4, column 3, second paragraph: The *ex situ* conservation is forgotten. Text could be changed to: "Linkages among *in situ*, *ex situ* and on-farm conservation and management and … and…". - Not clear what the expectations refer to. - In expected results, "inclusive, sustainable and efficient agricultural and food systems" could have been explicitly mentioned, since this is in the vision. Also, what will be achieved at country level and what at global level could have been made more explicit in expected results. This is in the mission.

		- Regarding the Vision: "Sustainable and resilient food systems" is preferable rather than "efficient food systems", which is often equated with production maximization and loss of PGR diversity - Goal 2 is not clear; policy direction and guidance cannot be provided by just monitoring implementation, but this is an important goal. Suggestion: "To provide policy direction and guidance by actively promoting and sharing best practices on policy implementations that support and enhance conservation and sustainable use of plant genetic resources for food and agriculture". - The vision is not clear. What is meant by "efficiency" of agricultural and food systems, and why would this be relevant to the Treaty's work on sustainable use? Efficiency, as it is usually understood in agriculture, often leads to a narrowing of the genetic base in farmers' fields. A broader understanding of resource-use efficiency (see for example www.fao.org/3/i9037en/i9037en.pdf) would promote a greater use of diverse PGRFA. I would therefore suggest referring to resource-use efficiency. - Goal 4 should also refer to the CBD's post-2020 global biodiversity framework, which will be adopted in October 2020, and which will include targets and indicators, possibly drawing on the existing Aichi Biodiversity Targets. - The vision, mission and goals of the Joint Programme should support processes and engagement with partners. - Project to project is too *ad hoc*, and does not provide sustainability for the current Programme of Work; it needs to shift to more stable funding for implementing Articles 5, 6 and 9. - To add in the paragraph on Cooperation – with regional policies on agriculture e.g. Common Agriculture Policy.

Proceedings of the Informal Meeting of Experts 'Exploring possible elements of a Joint Programme on Biodiversity in Agriculture for Sustainable Use of PGRFA 2020-2030' [7]

Are the components and expected results of Programme of Work 2020–2023 also aligned with the needs of the	Yes	- Compliance Report or Implementation Report of the Contracting Parties does not cover all the efforts in various components; it would need a systematic gathering of information related to Articles 5, 6 and 9 by the NFPs. - Concerning the Joint Programme, processes such as the CBD post-2020 should be included. - Consideration should be given to avoiding extensive, duplicative reporting with other initiatives, in particular the GPA-PGRFA of the Commission. - We agree with the idea of adopting a food-system approach. However, it is not clear how resilience to climate change is linked to the rest of this area. It would make

[7] www.fao.org/3/CA2208EN/ca2208en.pdf

Contracting Parties and relevant Stakeholders?		more sense to integrate resilience to climate change into thematic area 2. Furthermore, this area should include the term "*sustainable* food-systems". Sustainable food systems have become a key issue in the global agenda. For instance, the Ministerial Declaration of the 2018 High-level Political Forum includes a call for all stakeholder to adopt a holistic approach to foster sustainable food systems. In the same year, the Global Environment Facility launched a new instrument for more than US$100 million to foster sustainable food systems. The UNEA, during its 4th session in March 2019, addressed food systems as a priority theme, and called for the promotion of sustainable food systems in the Ministerial Declaration. The Sustainable Food Systems Programme (SFS Programme) also fostered a holistic approach to promote sustainable food systems in FAO. The Committee on Agriculture called on FAO in October 2018 to assist Parties in their application of the "sustainable food systems approach". These initiatives should all be considered in the application of this thematic area. The focus should be on *sustainable, nutrition-sensitive and resilient food systems.* - Multistakeholder partnerships are key in mainstreaming this area. One important partner should be the Sustainable Food Systems Programme of the 10-Year Framework for Programmes on Sustainable Consumption and Production Patterns. - This thematic area can be mainstreamed, among others, through the Swiss national FAO Committee (CNS-FAO), a multistakeholder committee that is working on implementation of a food-system approach to food and nutrition security. The CNS-FAO serves as a consultative body, and provides advice on the fight against world hunger and its causes, improvement of global food security, and promotion of sustainable agriculture and rural development. - Part B (3), documentation and knowledge product development process is clear, but the result-sharing mechanisms of information and technology are not clearly mentioned. If we talk about increasing access, then dissemination mechanism is key. - They are too limited and inadequate considering the Vision, Mission and Goals. Ideally, there should be specific component(s) to achieve each of the goals. I wonder why the expected results by GB 9 and GB 10 are the same? It might be helpful to indicate milestones in each biennium. - On partners, international organizations should be clearly defined, and the roles of each partner/stakeholder should also be clear. - Across all components, the partners are very generic and always the same. They could be better specified. The role of national research organizations and farmers' organizations and civil society needs to be seen clearly. Also, not clear what 'International Organizations' are referring to? To specify, e.g. inter-governmental, research, private sector, civil society, etc.). - Component 2 (a) – what are the additional elements to be included in the Toolbox? - Component B (4) does not show how the expected targets and results will contribute to training and capacity-building on Farmers' Rights. In addition to capacity-

		building initiatives on Farmers Rights, a link with the UN Decade on Family Farming would be useful. - Component B (5), the Joint Programme on Biodiversity in Agriculture for Sustainable use of PGRFA has a very vague title – it's not clear what it means. What is "biodiversity in agriculture for sustainable use of PGRFA"? To engage with other partners, it would be important to have a simple and clear title that everyone understands immediately. Also, it would be important to include the four thematic areas here; otherwise it seems quite empty of content. - Ask for more direct implementation into regional policies of the provisions of the ITPGRFA. - On expected results, add a catalogue of good/best practices under the Toolbox in Part A, or as supporting initiatives under Part B. - Be more ambitious, propose a strong programme.

The Four thematic areas of the Joint Programme on Biodiversity in Agriculture for Sustainable Use of PGRFA 2020–2030

Questions	Response	Comments/Suggestions
Do you agree with the 4 thematic areas identified?[8] Can they be mainstreamed in your National and local Plans and Programmes? If yes, how?	Yes	- To understand how these four thematic areas inspire or contribute to the design of the Programme of Work and/or the Joint Programme. The 4 thematic areas identified do not seem to be reflected in the Programme of Work, nor to interlink with the five objectives of the Joint Programme. In summary: What are they for? - It is very important to create more efficient channels of communication between the International Treaty and farmers in countries that do not speak the official languages of FAO. - The four thematic areas are properly identified. The utilization of PGR for future breeding and development of new varieties (crop improvement) could have been an important and separate theme. Or it might have been implicit in Theme 1.
Thematic Area 1: A food-system approach to food and nutrition security and ensuring resilience to climate change	yes	- By coming up with appropriate policy framework. - It would require political support and strong leadership. - Neglected and underutilized crops or genetic resources deserve enhanced attention. - It is important to have a food and nutrition security approach by introducing some developed crops that are resilient to climate change, recultivating varieties that have been extinct as a result of climate change, and encouraging farmers to

		follow guidelines for the conservation of local plant genetic resources that face climate change, through workshop training and seminars. - Yes, this thematic area can be mainstreamed in my organization's work (Bioversity International). This is actually the aim of much of the work we do. - Highly relevant. - This is a most relevant topic and it encompasses all the others. In my opinion the sentence could be clearer, as: "A food-system approach to food and nutrition security and sovereignty, that encourages local resources and products and promotes the dynamic conservation of agriculture systems conserving PGRFA and ensuring resilience to climate change." Other thematic areas should be designed to complement this one, concerning markets and consumption and public policies. - Food-system approach for food…. looks a bit odd. I would rather use 'crop improvement approach'. This thematic area aligns with the Nepal Agro-biodiversity Policy (2014), Nepal's Zero Hunger Challenge commitment, Climate Change Policy (2011), National Adaptation Plan (NAP-under development), Nepal Agriculture and Food Security Investment Plan (2010), Nepal Biodiversity Strategy and Action Plan (2014), and Agricultural Development Strategy (ADS-2015-2035). - Identify ways to support organic, low input systems where genetic diversity plays an important role, focusing on the advantages of such systems, and their diversity from the field to fork. This could include providing technical and institutional support at international to national and local levels towards the construction of local, independent food chains, which also requires some policy changes to favour small productions and artisanal processing enterprises. - Strongly support 'the food-systems approach', but it would be stronger if we make it more specific by adding the word 'sustainable' and make it a 'sustainable food-system approach'. It is already mainstreamed in our organizational work. - A very important thematic area. The Secretariat should prioritize one thematic area to pilot groundbreaking activities on an integrated approach to sustainable use of PGRFA, along with nutrition and climate change policy. - A fundamental approach to secure foods for today and tomorrow. - Relevant for European region.
Thematic Area 2: Disaster relief and the conservation of natural capital	Yes	- Through conservation of ecosystems. - This part of the Joint Programme would help disaster prevention, but also include the development and testing of protocols for the restoration of agricultural biodiversity in disaster relief. Genebanks may not have the capacity to develop and implement disaster relief protocols.

		- Development of disaster relief plans related to the conservation of plant genetic resources. - Development of national breeding programmes for a number of crops and new varieties that are resilient to climate pressures. - Establishment of seed banks and gene banks to conserve all locally available seed varieties to be used in substitution of the varieties lost during disasters. - Conservation of samples of these seeds and genes in global banks in areas far from the occurrence of disasters, for their sustainable use. - Relevant. - The conservation of natural capital, and policies to deal with disasters should be part of thematic area 1 above. - Propose "conservation of natural capital and disaster risk reduction and management". - Use risk reduction/mitigation and management, rather than 'disaster relief'. Now climate change and disaster issues are combined. Alternatively, climate change resilience and disaster risk reduction could be put in a common theme. This aligns with a Local Disaster Risk Management Plan. - An important element of this could be community seed banks, but mechanisms for their sustainability over time (seed sales?) need to be devised. - Disaster relief is very important, but disaster risk reduction is more developmental, and also closely linked with the conservation of natural capital. So we use disaster risk reduction framework so as to avoid any disaster from happening. It is important to note that calamities can be a disaster only if the affected areas are not prepared, and have no capacity. - One of the two priorities to pilot in a joint programme of work.
Thematic Area 3: PGRFA and an attractive rural life	Yes	- To highlight the intangible benefits (which can be translated into avoidance of cause of related illness and malnutrition, transactions to acquire food) derived from PGRFA, such as for health and wellness, nutrition and food security, and perpetuation of traditions and preservation of local knowledge. - To clearly define tangible and intangible benefits. - To offer incentives to communities that conserve wider diversity of PGR. - This is part of economic development plans that are national responsibilities. - The link between PGRFA and rural life is not clear. Awareness-raising and education is an important aspect for the promotion of rural life. Projects at community level could help to make PGRFA more attractive, e.g. by reviving

		and reintroducing old traditions linked to 'less attractive' local plant genetic resources. - There is no local rural agricultural life, but there are private farms. However, farmers benefit socially and economically from information related to the sustainable use of resources, to improve their lives and develop their crops. - While this topic looks attractive to me, we have to be conscious that probably the most important factors influencing rural life are not so much related to the conservation and use of PGRFA, and therefore fall outside Articles 5, 6 and 9 of ITPGRFA, and even outside ITPGRFA itself. - It may be relevant, but should not be a primary focus, as the links are more difficult to establish in terms of communication. The topic is difficult to attract funding; the first thematic area should be the main one. - Our main focus should be on identifying and encouraging farmers and communities (and their agriculture systems) who conserve PGRFA in diverse agricultural systems (it is not clear what is "attractive rural life"). - This is a very good idea. I think attractive rural life could be created by making rural life attractive to outsiders through appropriate agro-ecotourism. I don't know whether it fits here. It may fit under rural-urban linkages. - In addition to policies that provide support or remuneration for the conservation of threatened PGRFA, it would be important to provide some agrobiodiversity, to compensate for the likely lower yields and reduced specialization in a single product - It is not clear what "attractive rural life" means. But if the intention is to raise awareness of and commitment to the conservation and sustainable use of PGRFA, highlighting the important roles of women and youth, maybe it is better to say it clearly, something like: "Social and cultural values of PGRFA and the role of women and youth"? - It should be stressed that more is needed to make farming more attractive, to retain young people in food production activities. - Relevant for Europe within the framework of EU rural policies.
Thematic Area 4: Systemic and holistic approaches to the sustainable use of PGRFA in an enabling legal and institutional environment at all levels	Yes	- Harmonization of policies and laws in all ministries responsible for managing PGR in general. - Conflicting (and non-implementation) of laws and policies should be harmonized. - Less emphasis should be put on regulatory aspects that are national responsibilities.

		- Plant breeding as an integral and core activity for sustainable use needs more attention in this context. All documents provided seem to avoid integrating plant breeding. That is of great concern and needs to be rectified. - Yes, although the formulation is rather vague. It would make more sense to integrate the notion of a systemic and holistic approach into Thematic area 1. - The Public Authority for Agricultural Affairs and Fish Resources, which is responsible for the development of the agricultural sector, promotes special laws and methods suitable for farmers and agricultural institutions at different levels, in order to preserve agricultural genetic resources to enhance and ensure the sustainability of their use in the future. - It is unclear what is meant by systemic and holistic in this setting. What is important is the last part of the setting, 'creating an enabling legal and institutional environment at all levels'. However, this is not a separate topic, but integral to Thematic area 1 above (and to Thematic area 2), which I suggest having as our key focus. - It is unclear and so broad. It should be more specific to make sense and produce concrete results. - Since all above themes, one way or the other, contribute to one or more SDGs, highlighting the SDG in this theme does not appear logical. Rather, I would highlight the establishment of a multi-institutional/multistakeholder and multidisciplinary mechanism. - The thematic area is huge or vague. - This is a mouthful! I suggest a more focused thematic area on "enabling legal and institutional environment for conservation and sustainable use of PGRFA". - Need to promote a more holistic approach and more interdisciplinary interactions on the sustainable use of PGRFA. - Very important, and it is crucial to identify and address them before promoting positive tools.

The Five Objectives of the Joint Programme on Biodiversity in Agriculture for Sustainable Use of PGRFA 2020–2030

How can the proposed 5 objectives of the Joint Programme on Biodiversity in Agriculture for Sustainable Use of PGRFA be reached within the existing national rules?		- The following paragraph applies to all the objectives below : - National Action Plan-PGRFA should be defined and implemented based on a multistakeholder approach, together with a wide range of private and public institutions. These partners can include seed-saver organizations, arboretums, seed shops, breeding and science institutions, agricultural organizations and other relevant stakeholder organizations. They all contribute to the realization of the National Action Plan, helping to ensure the conservation of plant genetic resources for food and agriculture. Collaboration with many partners helps to ensure conservation and the sustainable use of PGRFA. - This question must be addressed by members of the Joint Programme, if and when it is established. Some general ideas about how the 5 objectives can be reached: (i) by supporting capacity-building; (ii) by collecting and disseminating good practices; (iii) by providing guidance on possible objectives and criteria for selecting BSF projects, monitoring actions at the national level; and (iv)by facilitating policy dialogues within countries and regions. - Some of the ideas presented under the question “Are the components and expected results of Programme of Work 2020–2023 also aligned with the needs of the Contracting Parties and relevant Stakeholders?” could be taken into consideration for reaching the 5 objectives. - Through multistakeholder workshops, exposure visits, seminars and publications. - The phrase, “within the existing national rules” is an important factor here. In most cases, it is the absence of clear national rules and corresponding budgets that prevents implementation of the conservation and sustainable use of PGRFA.

1. To promote awareness and capacity-building among stakeholders (decision-makers, institutions, farmers' organizations and other relevant institutions and sectors, scientists, local farmers, agribusinesses, and the general public) on the importance of/and sustainable use of PGRFA		- Include some awareness in school curricula, preparation of policy briefs for policy-makers, visibility plans. - Aside from information-education and communication (IEC) materials, action research and extension activities should be conducted. Gathering, synthesis and packaging of information into a form usable by policy-makers. The continuing and strengthening curricular programmes from primary, secondary and tertiary education must be pursued. - Education at all levels is key. That applies to all five points made here. - This can be achieved through participatory processes, e.g. participatory plant breeding/participatory varietal selection. - The most important opportunities concern NGOs that engage in the conservation and sustainable use of PGRF. - Through educational and cultural campaigns by publishing brochures and organizing special workshops, and encouraging farmers and stakeholders in all sectors to apply the ongoing national provisions and laws for the conservation and sustainable use of resources. As well as encouraging the use of modern technology for the development of plants that are adaptable to local environmental and economic conditions, and eliminating pests and diseases in order to increase production. - The capacity of different levels of governments and government offices is poor on PGR and climate change, since the peoples' representatives do not have such background. A number of capacity-building activities are needed, to be planned at different levels, but that is not properly done yet. The State of the World's Plant Genetic Resources for Food and Agriculture (SoW) may give useful guidance on this front. - In Italy, awareness-raising is mostly carried out through project-based funding, though quite successful. - There should be openness among stakeholders to learn from the best practices of some, and in most cases it is difficult for the 'learned and educated' to listen to the 'uneducated'; hence we are missing a great deal in terms of understanding and learning about proven practices and experiences that are effective and working. Well-organized multistakeholder workshops, which include visits to areas where good practices of conservation and sustainable use are happening, might help. - Through the framework of SDGs. - Extension agencies should be mobilized. - It is very important to raise awareness of the different actors involved in putting into practice participatory processes, both at institutional and research level, e.g. national platforms on PGRFA and participatory plant breeding programmes. - To learn from the project research experiences, e.g. European research projects within the HORIZON 2020 framework, where multi-actor and participatory research and breeding are promoted (see www.diversifood.eu). -

2. To create an enabling environment for sustainable use of PGRFA through coherent policies, legislation, strategies and action plans		- Review of strategies, action plans, policies and legal framework to identify gaps and duplications. This will result in the development of harmonized policies, legislation, strategies and action plans. - Monitoring, evaluation of existing policies and continuing harmonization of policies, amendments of existing laws, provision of financial support. - Excessively directive legislation and policies may not be the best strategy, because the actors in the field, i.e. farmers, plant breeders, the seed market and researchers, who need to take initiatives, may need room to unfold initiatives. Legislation needs to pay attention to measures that may counteract sustainable use of PGRFA. - This calls for generally coherent policies, and the huge marketing opportunities for varieties with special traits or stories. Again, participatory processes are key. - Encouraging farmers and relevant stakeholders to develop agricultural genetic resources to increase their genetic diversity, maintaining and sustaining their use. - The government entity in charge could establish an internal committee to work out a proposal on policy and legislation, including revising existing legislation. The work could be supported by a multistakeholder reference group. The resulting proposal could be sent out on a hearing. After inputs from the hearing have been taken into account, the proposal should be sent to Parliament for adoption. As soon as the policies and legislation are adopted, the same unit, supported by the same multistakeholder reference group, could develop a strategy and action plan. This document should also be sent for hearing before adoption in the Ministry (it is not necessary to send this for adoption in Parliament, since it should be based on the policy and legislation already adopted). It is of key importance that the strategy and action plan have inherent mechanisms ensuring monitoring of implementation. - The Government of Nepal is now in the process of developing several new policies at local, provincial and federal levels following the restructuring, so PGR conservation and utilization issues can be integrated into a number of policies, wherever they fit. - Through policy reforms on seed legislation and intellectual property levels, as well as encouraging action-based research involving farmers and researchers together. - Relevant policies and programmes should include provisions for conservation and sustainable use of PGRFA. For instance, national seed laws, Plant Variety Protection (PVP) law, climate change adaptation plans, national strategies for food and nutrition security, among others, should be reviewed (if already existing), and developed to ensure that PGRFA are conserved and sustainably managed. - Increased tools and awareness. Pilot projects such as those identified in the thematic areas could help. - National agencies and institutions should be mobilized and promote greater coordination. - Sharing the best/good practices between countries could be an efficient way to create an enabling environment.
3. To strengthen market and financial mechanisms for the sustainable use of PGRFA through		- Private sector involvement is key in supporting these activities. Governments need to provide incentive mechanisms to motivate private sector investment. - The private sector involvement should be encouraged, and support given to involve biodiversity-friendly enterprises through incentives; provide infrastructures.

support and guidance to governments and relevant stakeholders		- This is done through the provision of material and moral support and guidance of counsellors and government bodies to farmers and relevant stakeholders. - Interventions in markets need to be looked at carefully. Consumers need to be part of such activities. - There is little experience and evidence on how to facilitate this. Generally, more research and development is needed. Government and relevant stakeholders could be guided to inquire how experts on marketing issues could be linked with relevant providers of agrobiodiversity products, to boost their market access, and how more experience could be explored to establish guidelines on these issues. As for financial mechanisms, microcredits have proven to be very useful among economically poor farmers who wish to invest in diversity-related business. Other mechanisms, such as project support (in developing countries through development cooperation) are also relevant. - Value chain has been a key element of different policies and plans – ADS, Food and Nutrition Security Policy, etc. - A careful use of labelling rather than denomination of origin and similar market mechanisms may work better, at least in Italy. - A more targeted approach to funding support, wherein smallholder farmers and institutions who are directly supporting conservation and sustainable use of PGRFA are given financial support for their work on conservation and sustainable use. For instance, the Benefit-sharing Fund should directly benefit smallholder farmers who are doing conservation and sustainable use of PGRFA. - The assumptions underlying this increased emphasis on market mechanisms need to be examined, before calling for their strengthening here. At the very least, there should be a step calling for the analysis of the efficacy of market mechanisms in the context of Article 6.
4. To facilitate the coordination, synergy and management of scientific and traditional knowledge for the sustainable use of PGRFA		- Analysis to be conducted to identify all stakeholders in order to streamline their involvement. - There should be an active engagement of local stakeholders, communities in research, development and extension (RDE), policy-making. - Recognition of the value of traditional knowledge, e.g. through the involvement of farmers in decision-making processes, is an important point here. - It seems that we still lack scientific understanding of what really constitutes sustainable use of PGRFA. The plant breeding sector must be included in such considerations. - Through meetings and involvement of farmers and relevant stakeholders to assess their needs and share information and knowledge, aimed at identifying the challenges they face. - Participatory approaches are useful for this purpose; emphasis should be on documentation and exploration of traditional knowledge, as a basis for improving traditional crops with a view to climate adaptation, general robustness, improved yields, sustainable agricultural methods, and the properties defined by farmers, and consumers in cases where farmers are not consumers. - There are many successful experiences of knowledge exchange (scientific and traditional). We need to systematize and disseminate this. - National policy and legislation supports this objective. Traditional knowledge has been well recognized in climate change, biodiversity, food security and

		PGR conservation policies. Community seed banks (CSB) are being promoted by the government to recognize traditional knowledge. - This requires a whole new mindset among researchers (holders of scientific knowledge) and practitioners (of traditional knowledge), to allow them to come together and to share and co-innovate. This can be favoured by training in participatory methods (breeding is a key field in the PGRFA area), multi-actor approaches, and system-based thinking. - Past and current experiences of misappropriation and abuses have led to mistrust and suspicion, particularly on the part of the holders of traditional knowledge. It is therefore important to have clear mechanisms that would protect traditional knowledge, including but not limited to free and prior informed consent, access and benefit sharing. - National and international agencies should take a more robust stand with regard to recognition. - Setting up of national platforms on PGRFA involving all the actors concerned, and also with a dedicated budget for supporting specific platform activities.
5. To boost sustainable-use activities on the ground through an integrated approach to *in situ*, on-farm and *ex situ* strategies, and through mainstreaming sustainable-use activities in ongoing measures aimed at achieving SDGs.		- Development of national action plans and strategies which will streamline stakeholder involvement - Projects should have anchored a holistic long-term framework of conservation; complementation of *ex situ* and *in situ*; clear policy and guidelines to operationalize the linkage between *in situ* and *ex situ* conservation on a national scale; to create an enabling environment for grassroots to design local conservation models, integrating advanced technical and local knowledge. - The complementarity between the *in situ*/on-farm sector can be enhanced, and it makes sense to support an integrative approach. - Funding for project-based initiatives, which include all levels of sustainable use (including economic considerations). The projects should be aligned with the needs of stakeholders, and the context in which plant genetic resources are used. - Through strong linkages between *in situ*, on-farm and *ex situ* initiatives and programmes to achieve Sustainable Development Goals. - This is a huge topic. In my experience, community seed banks are the most promising institutional structures to boost such activities. They are often platforms for this in a greater context of food security, climate resilience, income generation, development and empowerment. Creating enabling environments for community seed banks, and investing in their establishment, would be core. It is therefore important to learn from experience. Many community seed banks did not work. Others worked exceptionally well. It is important to identify the conditions for success, so as to enable a breakthrough for this mode of operation, and for scaling the good experiences out and up. - The dynamic conservation of Traditional (local) Agricultural Systems with the support of a National Germplasm Bank is the most promising structure for an integrated approach to *in situ*, on farm and *ex situ* strategies. - The *in situ-ex situ* linkage has been recognized by the government. CSB is one of the actions that link communities with the genebank and research organizations (e.g. Nepal Agricultural Research Council (NARC)). The Government of Nepal has also made strong commitment to achieving the SDGs. - Networking among farmers and other food system actors interested or involved in PGRFA conservation and use will be important to enhance and provide visibility to on-the-ground activities around conservation and sustainable use of PGRFA. This will also enable these actors to interact successfully with the *ex situ* community, for instance in terms of multiplication and testing of

		underutilized materials with interesting traits for niche/local markets from the genebanks. - This is very much linked to the other four objectives. Recognition of the important contribution of smallholder farmers and their inherent capacities is a prerequisite for the integration of *ex situ* and *in situ* strategies. Mainstreaming of sustainable use practices, many of which can be found in traditional farming systems, requires recognition of the role of smallholder farmers. Mutual trust and respect should be developed among stakeholders for meaningful partnerships to evolve, which will eventually lead to achieving the SDGs. - Creation of incentives for farmers and other value chain actors. - Creation of long-term support for existing initiatives, which follows an integrated approach. - Current marketing tools or policies lack an integrated approach, and project-based strategies will not be enough to scale up these initiatives.

The draft survey on Technology Transfer

Questions	**Response**
Is the survey sufficiently clear to identify gaps between technologies available and technologies needed for transfer in Plant Genetic Resources Conservation & Utilization?	**Yes**

Comments and suggestions

- Should be validated through local and national consultations.
- Other elements could include local constraints or factors such as staff training or technical capacity.
- The survey is focused on technology transfer, whereas some of the areas suggested for technology transfer typically require institutional cooperation or other forms of cooperation. The technological aspects fit well for the conservation part, and as such the survey would fit better as a measure for implementation of Article 5. As for Article 6, I am not sure that this survey will help us much further. Also, there is survey fatigue, quite a number of surveys are being sent out to the same respondents. We should therefore be careful about sending out such surveys.
- Provide a rationale for this survey; I am not convinced that it is necessary for implementation of Article 6.
- Focus the scarce resources on producing concrete guidance for implementation of Article 6, based on the comprehensive information already at hand.
- The survey on technology transfer is not needed for implementation of Article 6.
- Some questions are not very clear. For instance, ‘existing government rules’. Some straightforward questions could have been asked about ‘available technologies’ and ‘needed technologies’ to be transferred.
- The survey seems biased towards ‘technology’. Much in the field of PGRFA needs to be addressed with low-tech solutions, such as farm trails, PPB, reintroduction of mixtures and older varieties, communication and networking. Bullet point 2.8 is vague and needs more details.

- This survey is not necessary; there is enough material to provide some guidance on implementation of Articles 5 & 6, which is more important at this point.
- The content and structure seems to be a linear top-down technology transfer from more industrialized countries to developing countries.
- Any information gathering effort under the Platform should focus on those tech transfer aspects in which the Platform has a role to play. The Platform itself is not going to fill in the technology gaps according to the (perceived) technology needs. The Platform's role is rather to facilitate partnership and increase collaboration, so that technology co-generation and technology transfer can happen. Based on this, instead of focusing on technology gaps as such, the survey could focus on factors that hinder or facilitate technology co-generation and transfer. By collecting technology users' opinions and experiences in relation to these factors, the Platform can prioritize activities that can maximize positive factors, and minimize the negative ones.
- The survey assumes that respondents can evaluate their own technology needs, and that they are aware of existing technologies that are relevant to them. In fact, it suggests that the respondents' technology needs may be assessed based on technologies that are out there, and which they don't have. I feel that this approach may be a bit simplistic. According to literature on technology transfer, often the biggest limitations to technology transfer are related to: 1) technology users' lack of appreciation of their own needs; 2) technology users' lack of information about available technologies; and 3) technology users' lack of capacities to adopt and use other technologies efficiently.
- The survey should not focus (or not only) on technology needs and gaps, but rather on respondents' opinions about constraints and opportunities for co-generation and transfer.
- The survey seems to be based on the understanding that technology transfer and acquisition in a country can (or should?) be led and 'programmed' by some organization. I think that this understanding is wrong. Technology transfer happens all the time, among public and private organizations, among institutions and individuals. It can be facilitated and hindered by public policies (e.g. genetically modified organisms); also, private organizations' policies or principles have a strong influence on how and how much tech transfer happens (e.g. intellectual property principles). But tech transfer is mainly subject to demand and supply; it is the result of individuals' and individual organizations' initiative. It is not dictated from the top. In the area of PGRFA conservation and use, I can't think of any particular technology for which a heavy intervention from the government is justified, or actually exists nowadays.
- The survey seems to target technology users who are in need of technologies. It could also target technology users who can transfer technologies.
- Too focused on the idea of technology transfer as a key element to be implemented, instead of considering technology appropriate to different contexts (Questions 3.2 or 3.3).
- Include idea on social innovation, e.g. changing national breeding programmes from conventional to PPB, link transfer of technology to a specific breeding approach, and not really to a technique.

Other specific comments on item 'I. Elements of a draft Proposal for a new Programme of Work on Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture and Supporting Initiatives 2020 – 2023'

There is much potential for collaboration and fundraising under a collaborative effort that tries to unify Articles 5, 6, 9 and 13.2 (non-monetary benefits). So, either abandon the Programme of Work and concentrate all the efforts on constructing a very robust Joint Programme, which can fully operate from GB 8, or revisit the aspirations and scope of the Programme of Work to make it much more ambitious.

If the second option is the preferred one, the Programme of Work could pay particular attention to some key topics under Articles 5, 6, 9 and 13.2. One of these topics could be agricultural policies (including crop innovation policies, seed policies, food-system policies), and their effect on the availability and use of crop diversity (intra- and inter-specific) in breeding programmes, seed supply systems, farms and food markets. This issue has received much attention in some of the Committee meetings, and is of high interest among policy-makers and practitioners. A new component under Part A focusing on this topic could look like this:

Component	Expected results GB 9	Expected results GB 10	Partners
Promoting the development and implementation of friendly agricultural policies for the conservation and sustainable use of PGRFA	Collection of public policy measures adopted by contracting parties for supporting and facilitating the use of PGRFA in food systems (from crop innovation to food markets); comparative analysis of the impact of these measures; subsequent recommendations.	Collection of public policy measures adopted by contracting parties for supporting and facilitating the use of PGRFA in food systems (from crop innovation to food markets); comparative analysis of the impact of these measures; subsequent recommendations.	Contracting parties, international organizations, other stakeholders.

Part A should also include a component oriented to support the exchange of information, technologies and good practices among contracting parties and other stakeholders. The following results could be included in such a component:

- Crop-specialized networks for information and technology exchange established or revitalized.
- Regional technical workshops for South-South exchange of information and technologies organized.

- Capacity-building events and tools focusing on particular techniques and technologies that can support conservation and use of PGRFA (e.g. participatory breeding, evolutionary breeding, generation and use of digital sequence information for PGRFA and effective use).

- Collection and dissemination of good practices in relation to building partnerships, knowledge sharing and technology transfer. These good practices could refer to the management of intellectual property rights, information dissemination, and technology supply, among other things. The compilation of such good practices could start with an analysis of how these different aspects have been managed under the BSF projects, and their initial impacts on stakeholders' involvement, information dissemination and technology sharing.

If the preferred option is to support the development of a strong Joint Programme at the expense of the Programme of Work, then all these proposals could be considered when defining the Joint Programme's priorities.

For most components under Part B of the Programme of Work, results by GB 9 and GB 10 are the same. Shouldn't the results show the evolution of the Programme of Work across time? Don't we expect that the nature of the work under the Programme will change from 2019 to 2023?

Under Component 2 (Toolbox), include some results related to: 1) Dissemination of Toolbox; and 2) Monitoring and evaluating actual use of the Toolbox?

Component 3 under Part B is not clear. Ideally the inventories, catalogues, etc. mentioned in this component should end up in the Toolbox.

Annex II

The Respondents

Region	**Members**
Africa	G. Munkombwe
Asia	T. Borromeo
Europe	R. Bocci C. Eigenmann
Near East	F.A. Salameen
North America	B. Bizimungu
	Experts
	R. Andersen P. Bustamante P. Chaudary G. Galuzzi N. Ignacio I. lopez M. Rahmanian S. Maselli S. Padulosi S. Bragdon