



The International Treaty

ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE



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Item 4 of the Draft Provisional Agenda

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

Rome, Italy, 2 and 3 March 2015

The Platform for Co-Development and Transfer of Technologies (Platform)

1. In June 2012, the Second High-Level Roundtable on the International Treaty on Plant Genetic Resources for Food and Agriculture adopted the Rio Six-point Action Plan for the International Treaty. The Action Plan recommended, as a priority, that stakeholders in the Treaty “*establish a Platform for the Co-Development and Transfer of Technologies, within the context of non-monetary benefit-sharing under the Treaty*”.
2. The Brazilian Agricultural Research Corporation (EMBRAPA) and the Indonesian Agency for Agricultural Research and Development (IAARD) hosted a workshop in Brasilia, Brazil (June 2012) and a second workshop in Bandung (July 2013), with a number of stakeholders to discuss the establishment of the platform. These developments were welcomed by the Governing Body at its Fifth Session and, as a result, the platform was considered a supporting activity to the Programme of Work on Sustainable Use (Resolution 7/2013).
3. The Secretariat requested platform stakeholders for an update to present to this meeting of the *Ad Hoc* Committee on Sustainable Use (ACSU). IAARD submitted a progress report, which is presented in the form and language in which it was received, for the consideration of the ACSU.

Platform for The Co-Development and Transfer of Technology

Report

By the Indonesian Agency for Agricultural Research and Development

February 2015

Background

There is no doubt that sustainable use is the most appropriate and effective approach for conserving plant genetic resources for food and agriculture. The rationale of plant genetic resources conservation is not only to maintain intra-specific diversity, but also to ensure their sustainable use to improve agricultural production. The improvements in agriculture have been possible due to the use of diversity within early crop varieties, including their wild relatives. Plant genetic resources, in particular underutilized crops and crop wild relatives, might not be conserved unless they have been or will potentially be used for agriculture production or as sources of genes for crop improvement. Hence, conservation and sustainable use are two sides of the same coin.

Agriculture technologies have played and will continue to play important roles in conservation and sustainable use of plant genetic resources. Those technologies may include conservation technologies such as in-situ, ex-situ and on-farm conservation tools, and utilization technologies such as genes identification, pre-breeding, conventional and molecular breeding, participatory crop improvements, and other supporting technologies of crop production. Unfortunately many genetic resources-rich countries, which are mostly developing countries, lack of the capacity to develop and applies such technologies; whereas many technology-rich countries, which are mostly developed countries, have only limited genetic resources. Transfer of technology and capacity building, therefore, are necessary, in addition to exchanges of genetic resources, for conservation and sustainable use of plant genetic resources.

Transfer of technology is sometimes seen as a one direction process from the developers of technology to the recipients. These processes, in some cases, fail to deliver technologies that match with the needs of the recipients. Co-development of technologies where both the resources-rich parties and the technology-rich parties develop the technology that match with the common need of the two parties, are more effective and promising. This process will also increase the capacity of the resources-rich parties. At local level, an example of this process is participatory breeding, where farmers involve in developing crops varieties. At international level, breeding of crops varieties in resources-rich countries together with the technology-rich countries is one example of co-development of technology. This process might be attached to the genetic resource exchange process, to the collection and transfer of germplasm for crop improvement.

The International Treaty on Plant Genetic Resources for Food and Agriculture (the Treaty) facilitates access to some crop genetic resources through the multilateral system as well as the fair and equitable sharing of the benefits arising from their use. It also provide the international framework for conservation and sustainable use of plant

genetic resources for food and agriculture. Pursuant to the Treaty's mandate, the implementation of benefit sharing through access to and transfer of technology has been established as one of the funding priorities adopted by the Governing Body for the use of the resources of the Treaty's Benefit-sharing Fund.

The Treaty calls for technology transfer as a form of non-monetary benefit-sharing (Article 13.2.b), backed by information exchange (Article 13.2.a), and capacity-building (Article 13.2.c). The Treaty provides that transfer of technology to countries ... shall be carried out through ... all types of partnership in research and development (Article 13.2.b.iii). Priority is given to "the implementation of agreed plans and programs for farmers in developing countries ... who conserve and sustainably utilize plant genetic resources for food and agriculture" (Article 18.5).

The Treaty's Governing Body, in all its sessions including its fourth session in Bali, Indonesia, has called for Contracting Parties and other relevant stakeholders to explore innovative ways to realise effective technology transfer (Resolution 4/2011), emphasizing that technology transfer is required to enhance the capacity to use plant genetic resources for food and agriculture through plant breeding, including the utilization of modern tools, traditional varieties and the participation of farmers. Resolution 4/2011, stemmed from the result of a Global Consultation, convened by Indonesia and Norway, on Benefit-sharing under the Multilateral System, in Bogor, Indonesia, March 2011, which focused on particular ways to realize technology transfer, in support of the Treaty.

In response to the Governing Body calls, at the United Nations Conference on Sustainable Development (Rio de Janeiro, Brazil, 21 June 2012), a High-level Round Table convened by the Governments of Brazil, Indonesia and Norway, adopted the Rio Six-point Action Plan for the International Treaty. It recommended, as a priority, that stakeholders in the Treaty "establish a Platform for the Co-Development and Transfer of Technologies, within the context of non-monetary benefit-sharing under the Treaty (the platform)". As the follow up, the Brazilian Agricultural Research Corporation (EMBRAPA) in conjunction with the Ministry of Agriculture, Livestock and Food Supply and the Ministry of Environment, and the Indonesian Agency for Agricultural Research and Development (IAARD) hosted a workshop in Brasilia, Brazil (7-8 August, 2012) with a number of stakeholders to discuss the establishment of the platform, considering existing experiences. The workshop noted 'the difficulty that has in the past been faced in finding an effective approach to technology transfer, and that this is creating uncertainties and tensions around the concept of non-monetary benefit-sharing. It realized that technology is being transferred all the time, in many different ways, through international and national research institutions, through a variety of international projects, and through the commercial sector¹.

This party-led initiative was further developed through the meeting in Bandung, Indonesia in 2013. During the Bandung meeting, the concept of technology transfer was concretized by a review of crop-specific technologies that would be useful for smallholder farmers in Indonesia. The Bandung meeting also developed some basic criteria and ideas for the further development of the Platform. These developments were welcomed by the fifth session of the Governing Body in Muscat, Oman in 2013 under Resolution 7/2013. Activities under the Platform were grouped under "supporting activities".

¹ Report, Workshop to Discuss a Platform for the Co-Development and Transfer of Technologies, Brasília, 7-8 August 2012 (hereinafter 'Brasilia Report'), available at http://www.planttreaty.org/sites/default/files/brasilia_2012_report.pdf

Objectives of the Platform

The Platform seeks:

1. To respond to needs identified and problems perceived by target beneficiaries, namely small farmers and their communities;
2. To create a functioning network of institutions with the skills and experience to support and undertake initiatives and projects that aim to co-develop and transfer technologies² to beneficiaries in developing countries;
3. To contribute to food security, and the social and economic development of the target beneficiaries, through the establishment of a "one-stop shop" for coherent "technology transfer packets", based on the understanding of technology co-development and transfer pathways and the mapping of actors involved;
4. To promote the co-development and transfer of technologies, recognizing that technology transfer requires a range of supporting activities, in particular information sharing and capacity- and institution- building;
5. To mobilize in-kind contributions from both the public and the private sectors for this purpose.
6. To mobilize financial and in-kind support to deliver relevant technologies, including through the Treaty's Benefit-sharing Fund;
7. To support the implementation of the Benefit-sharing Fund project cycle through the provision of relevant expert advice and capacity.

Principles of the Platform

The Platform will adhere to the following principles:

1. The Platform considers that technology transfer is a means to deliver benefits to target beneficiaries, rather than an end in itself.
2. The Platform follows a problem solving-based approach (i.e. the identification of existing constraints as the basis for undertaking technology co-development and transfer).
3. The Platform recognizes that there is a wide range of approaches to technology transfer, and a broad range of potential solutions, in responding to needs. Hence, the Platform does not adopt a single model of technology co-development and transfer; it evaluates the usefulness of different models based on parameters such as the capacity to lead to integrated technology packets and to technologies adapted to the needs of small farmers and their communities.
4. The Platform pursues a combination of germplasm (i.e. genetic material intensive) and non-germplasm based (i.e. information intensive) technology co-development and transfer.
5. The establishment of and progress with the Platform will be reported to sessions of the Governing Body.
6. The Platform will consult with a wide range of stakeholders in the Treaty, in developing and implementing its activities.
7. In keeping with the Treaty's multilateral objectives, genetic material developed in the context of initiatives and projects supported by the Platform will be available through the Treaty's Multilateral System of Access and Benefit-sharing.

² Technology is the making, modification, usage, and knowledge of tools, machines, techniques, crafts, systems, methods of organization, in order to solve a problem, improve a pre-existing solution to a problem, achieve a goal or perform a specific function.

Governance of the platform

With regard to the internal governance of the group, three organs that would be needed for the Platform to operate are Partners Assembly, Steering Committee and a secretariat. The Partners Assembly would consist of the representatives of all the Platform partners. Technical experts or other advisors may be invited to attend the meetings as it may be deemed necessary by the Assembly. The Assembly would elect a Chairperson, to serve for an established term. The Assembly would meet at least once a year, physically or virtually, and would decide by consensus. The functions of the Assembly are, among others, to: i) provide general policy guidance; ii) Review and approve the plan of work, budget and annual reports; and iii) review and approve new requests from applicants to become Partners.

The Steering Committee would consist of a limited number of Partner representatives, preferably from different regions and different types of organizations. It would be nominated by the Assembly for an established term. The functions of the Steering Committee are , among others, to: i) submit the draft plan of work, budget and annual reports to the Assembly; ii) monitor progress made on the implementation of the plan of work; iii) prepare the agenda for the Assembly meetings; iv) guide the work of the Secretariat on implementation activities.

The Secretariat could, among other functions, implement the following activities in close consultation with the Steering Committee and in close collaboration with Partners: i) to organize meetings of the Assembly and Steering Committee; ii) to develop and maintain IT facilities for the Platform partners; iii) to organize policy dialogue initiatives; iv) to promote collaboration with other relevant international initiatives in the field of PGRFA-relevant technology transfer; v) to maintain internal and external communications related to the Platform activities; vi) to develop a template for, and circulate applications for partnership.

Funding for the Platform

As mentioned above, the platform classified as "supporting activities" at the fifth session of the Governing Body. It means that there no funding come from the core budget of the Treaty. The platform will mobilize in-kind contributions from both the public and the private sectors, and mobilize financial and in-kind support to deliver relevant technologies, including through the Treaty's Benefit-sharing Fund. The third call for proposal of the benefit sharing fund provide window for co-development and transfer of technology.

Progress on the Development of the Platform

Based on the GB-5 decision and policies developed during previous Platform partners meetings, interested parties, supported by the Secretariat, has been able to develop some but not all of the planned activities. Due to the lack of extra-budgetary funding, it was not possible to hold an annual meeting of the partners to the Platform in 2014. The development of a strategic paper was also postponed due to the cancellation

of the annual meeting. However, a number of important developments have taken place in support of the Platform:

1. Substantial efforts have been made to **develop a data Portal for facilitating information-sharing on relevant technologies** under the Platform. When fully developed, such a Portal could benefit the sharing of information on relevant technologies significantly. As a first step to giving substance to this Portal, links have been made to relevant technologies under the TECA portal (i.e., technologies and practices for small agricultural producers) hosted by FAO. An early version of the Portal, including TECA links, was demonstrated in a meeting held in Rome in June 2014 between representatives from IAARD and the Treaty secretariat.

2. A draft **Collaboration Agreement between founding institutions to the Platform** has been developed and subsequently discussed among IAARD, the EMBRAPA and the African Agricultural Technology Foundation (AATF). These three institutions have played a central role in developing the ideas on the Platform so far, and have in principle agreed to take the first steps and establish some interim arrangements to facilitate a first Assembly meeting between interested partners to this initiative.

3. Major ideas underpinning the Platform initiative have been **mainstreamed in Treaty activities by including a funding window focused on technology development in the 3rd project cycle of the Benefit-sharing Fund**. This new window 3 also includes options for multi-country projects, whereby institutions with high competence in relevant fields could cooperate with other institutions to make modern technologies (including genomics) available in research and breeding activities. The target groups for such activities would be small-scale farmers in developing countries trying to adapt to climate change and other threats to food security. The selection of projects for funding follows rigorous procedures with their own timing and, at the date of preparation of this report, there is no indication as to which project proposals will be successful. However, the helpdesk workshops that the Secretariat conducted in the fall of 2014 (i.e., between the pre-proposal phase and full proposal preparation) have highlighted the need for continuous support throughout project implementation for those project where technology co-development and transfer is envisaged in the context of multi-country and multi-stakeholder partnerships. The Platform could represent a mechanism to provide such continuous support, and in turn benefit from that experience to refine and apply its methodology.

4. **Technology co-development and transfer is emerging as a relevant theme in the context of plant genetic resource information systems.** DivSeek - an autonomous initiative of plant research institutions to integrate genomic research data into other relevant information domains, which the Treaty Secretariat is co-facilitating with a view to promoting cooperation on the development of the Global Information System of Article 17 - has recognized the importance of understanding the needs and capacities of stakeholders such as genebanks, breeders, researchers and farmers to define priority areas for germplasm characterization and evaluation, and data access. One of DivSeek's mission goals is to identify and communicate critical needs and facilitating cross-crop learning and capacity development and training to access and apply cutting-edge tools for the analysis and knowledge transfer from genotypic and phenotypic data, for impact-oriented and discovery-driven research. As a result, the DivSeek community has agreed to prioritize, through the institutions that are facilitating the initiative, linkages with multilateral initiatives promoting access to, and transfer of technology and knowledge. The Platform has been signalled as a relevant initiative in this context and Platform institutions, in possible cooperation with new interested

partners (e.g., the Beijing Genome Institute), may link some Platform activities to DivSeek's future programme of work.

5. At its second meeting in December 2014, the *Ad Hoc* Open-Ended Working Group to Enhance the Functioning of the Multilateral System emphasized on the importance of non-monetary benefit-sharing mechanisms, including technology transfer, and the need to increase visibility of the Platform. This is a positive endorsement of the Platform in the context of the Multilateral System and, to follow up positively, Platform institutions will consider, among its future activities, the possible pilot integration between the distribution of germplasm under the MLS and Platform-led co-development and transfer of technology associated with the germplasm.

Next steps

As shown by the publications of the various reports from the Intergovernmental Panel on Climate Change last year, the challenges to food security and the livelihoods of small scale farmers are very real. At the same time, there are exciting developments taking place in trying to create synergies between traditional plant breeding and modern technologies. It is crucial that these efforts benefit the traditional custodians of genetic diversity; the small-scale farmers of developing countries. The International Treaty and its Platform can have an important role in facilitating this.

For the Platform initiative to fulfill its potential, more sustainable funding arrangements are the most immediate goal of Platform institutions. In this regard, the general uptake of Platform ideas into a funding window of the Benefit-sharing Fund points in a potentially interesting direction, cf. that efforts for technology co-development and transfer are seen as core activities to be given priority under the Fund, with the support of the Platform. The agreement among the initiator which include the governance structure need also to be finalized or there might be other arrangement to avoid legally binding agreement, including who will invite the partners to join the platform. In mid-2015, Platform institutions will convene an internal meeting to take stock of the developments occurred so far in this biennium, and agree on a realistic set of activities to produce substantive outcomes for the Sixth Session of the Governing Body.