



The International Treaty
ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE



REPORT OF A TECHNICAL CONSULTATION TO PROMOTE PUBLIC-PRIVATE PARTNERSHIPS FOR PRE-BREEDING



30 - 31 May 2013
Rome, Italy



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Summary

Mutually beneficial public-private partnerships, as an integral part of crop improvement, are critically important for pre-breeding. Such partnerships enhance the adaptive capacities of cropping systems to climate change, and respond to the need for increasing productivity, in order to feeding an increasing global population. A technical consultation on promoting public-private partnerships for pre-breeding was accordingly convened in Rome, Italy in May 2013.

Participants presented on a wide range of approaches to crop improvement involving public-private partnerships. They agreed on the importance of conducting a thorough needs assessment, to identify the objectives of, and articulate the most effective arrangements for a global initiative to promote Public-Private Partnerships for Pre-breeding, under the aegis of the International Treaty on Plant Genetic Resources for Food and Agriculture. They stressed the importance of securing the support of stakeholders through wide consultation, and of clarifying the remit of the proposed global initiative, in 2014.

Overall, there was a strong support for exploring the possibility for the establishment of a global initiative to promote Public-Private Partnership For Pre-breeding that specifically addresses the imperative of broadening the genetic base of breeding materials, and of ensuring the access of plant breeders throughout the world to the widest possible range of high quality pre-commercial, pre-bred materials that are in suitable forms to be used in plant breeding. Towards this end, it was agreed, amongst immediate next steps, that a thorough needs assessment be carried out and the models currently in practice in Brazil, Germany and the Nordic countries be reviewed.

Outcomes of this consultation will be presented in the form of a Declaration of Intent at the Third High-level Roundtable on the International Treaty (Bandung Indonesia, 02-04 July 2013), and to the Fifth Session of the International Treaty's Governing Body (Muscat, Oman, 24-28 September 2013).

The Need for a Public-Private Partnership for Pre-Breeding

Significantly more food must be produced under the prevailing population growth and climate change scenarios with minimal environmental footprints. For this to be possible, farmers need a diverse portfolio of superior, well-adapted and input use-efficient crop varieties. In the chain of variety development, pre-breeding (pre-commercial breeding) has a crucial role to play, by identifying advantageous traits from non-adapted germplasm and incorporating them into parental lines, in order to generate the intermediate breeding materials that are subsequently used to produce elite varieties for farmers. Base broadening is one of the critical ways for enhancing the resilience of cropping systems that are continually threatened by the effects of climate change and variations.

Pre-breeding is a slow and expensive process, requiring the long-term investment of resources. The expanding role of the private sector in plant breeding in many countries has been paralleled with decreasing resources in the public sector, which historically undertook most pre-commercial breeding, and released the results to the entire plant breeding community, without exclusivity. A number of important public-private partnerships have in recent years undertaken focused pre-breeding programmes, but it has proved difficult to attract adequate resources into pre-breeding, because of its long-term nature, and the shorter term character of most funding sources. The growing use of intellectual property in plant breeding has also complicated the question of access to the products of pre-commercial breeding, where best practice is still evolving.

The International Treaty on Plant Genetic Resources for Food and Agriculture is an agreed international framework for the conservation, exploration, collection, characterization, evaluation and documentation of plant genetic resources for food and agriculture, and for equitable access and benefit-sharing.

The Rio Six-Point Action Plan for the International Treaty on Plant Genetic Resources for Food and Agriculture (<http://www.planttreaty.org/content/rio-six-point-action-plan-2012>), which was adopted by consensus at the Second High-level Roundtable on the International Treaty on Plant Genetic Resources for Food and Agriculture on the occasion of the United Nations Conference on Sustainable Development Rio de Janeiro, Brazil, 21 June 2012, calls for stakeholders “To promote a public-private partnership for pre-breeding”.

This Technical Consultation was convened in May 2012 by FAO, through the Global Partnership Initiative for Plant Breeding Capacity Building (GIPB), the Secretariat of the International Treaty on Plant Genetic Resources for Food and Agriculture, and the Italian National Academy of Sciences.

It drew together representatives of a number of institutions with direct experience in pre-breeding, and in public-private partnerships for pre-breeding, to:

- Take stock of the current status of pre-breeding, in particular public-private partnerships for pre-breeding;
- Identify practical arrangements for constructing an international initiative to promote public-private partnership for pre-breeding, and the development of a road map for achieving this;
- Identify elements of an action plan for forging partnerships between the public and private sectors in pre-breeding.
- Identify opportunities, partnerships and resources for further strengthening national capacities for participating in and deploying the products of pre-breeding;

Proceedings

The consultation (see Annex 1 for the Agenda) included 25 participants (see Annex 2 for the list of participants) from agricultural research and development institutions and universities of eight countries of Asia, Europe, the Near East and North and South America. Also represented were two CGIAR centres, CIMMYT and ICARDA; UPOV; the Syngenta Foundation; the Secretariat of the International Treaty on Plant Genetic Resources for Food and Agriculture; the Global Crop Diversity Trust: Seeds and Plant Genetic Resources, FAO; civil society; and a seed company. The invitation extended to the International Seed Federation could not be honoured on account of scheduling conflicts.

Participants — including from Germany, the Nordic Genebank, Brazil, India, France and CIMMYT — made presentations describing their experience with pre-breeding, and particularly the enabling institutional frameworks for public-private partnerships. Mechanisms that have resulted in functional public-private partnerships in pre-breeding were highlighted.

The consultation focused on defining what the objectives, structure, value-added roles and cooperation mechanisms of an international initiative for promoting public-private partnership could be. Participants agreed on the importance and timeliness for establishing the initiative, under the aegis of the International Treaty, and in harmony with its access and benefit-sharing provisions. It was also agreed that a number of intermediate steps would be needed, before deciding precisely what form the initiative should take. Agreements were reached on the immediate next steps for growing this global initiative mechanism. These included the desirability of identifying the range of public-private partnerships that were already in place, and investigating the principles on which they were based, and further discussions with a wider range of stakeholders, particularly from the private sector, and relevant policy and decision-makers.

The Consultation accordingly adopted the following statement of Intent.

TOWARDS AN INTERNATIONAL PUBLIC-PRIVATE PARTNERSHIP FOR PRE-BREEDING

DECLARATION OF INTENT

The Technical Consultation To Promote Public-Private Partnerships For Pre-Breeding, held in Rome, 30-31 May 2013, welcomed the recommendation, in the Rio Six-Point Action Plan for the International Treaty on Plant Genetic Resources for Food and Agriculture, for the promotion of Public-Private Partnership on Pre-breeding, agreed that this was urgent, and decided to commence the process for the establishment of a global initiative in this regard.

The Consultation affirmed the critical importance for crop improvement of the discipline of pre-commercial pre-breeding, which:

- Underwrites food and nutrition security, by providing the widest possible range of useful genetic variations to plant breeders, in forms which can be used efficiently and rapidly in developing well-adapted crop varieties.
- Enhances the world's capacity to mitigate threats of climate change and genetic extinction and erosion.
- Addresses the constraints to bringing exotic materials into crop germplasm, in an efficient manner, for both the private and public sectors.
- Is an integral part of the continuum of activities that link the conservation of genetic resources, through their sustainable use by farmers and plant breeders, to the delivery of high quality seeds and planting materials, and the supply of adequate and nutritious food to farming communities and consumers.
- Improves the resilience and sustainability of seed systems.

The justification of the need to establishment of an international initiative to promote Public-Private Partnership for Pre-Breeding, includes the need to:

- Provide an international forum for setting priorities and mobilizing resources for pre-breeding activities.
- Promote the strengthening of capacities for pre-breeding activities, building on existing capacities and initiatives.
- Advocate, promote and facilitate sustained long-term investment in pre-breeding.
- Create a sustained public awareness of the importance of pre-breeding for world food security.
- Identify and promote models for partnership, and disseminates information on best practices.
- Promote the transfer of knowledge, technologies and materials to support pre-breeding.
- Promote access to, and use of, plant genetic resources for food and agriculture, for sustainable agriculture and world food security, within the framework of the International Treaty.

The Consultation identified a number of basic principles for the initiative:

- The initiative for Public-Private Partnership will operate within the framework of the International Treaty on Plant Genetic Resources for Food and Agriculture, and its structures for access and benefit-sharing.
- The initiative should be created and directly implemented by a group of practitioners, representing the major categories of stakeholders.
- It should focus on client-driven objectives, with the clients being the generators and users of pre-breeding material, at all levels: germplasm curators, researchers and breeders in the public and private sectors, and farmers. As objectives, priorities and approaches vary across countries and regions, a wide focus and capacity development effort are essential.
- The Partnership will provide a forum for consideration of all issues important for pre-breeding, including: the establishment of agreed objectives and priorities; support for the mobilization of resources for agreed activities and programmes; and the role of Intellectual property management in public-private partnerships, with the identification of best practices and model clauses; facilitate the ease of integration of technologies in pre-breeding.
- The partnership should not itself seek to undertake pre-breeding, but to provide a policy and support forum to strengthen pre-breeding, with the aim of promoting the widest possible access to high-potential, stabilised, pre-commercial materials.
- In recognition that the public awareness of the importance of pre-breeding for the sustainable use of plant genetic resources and for world food security is very low, the partnership should include a strong advocacy outreach, to build public awareness and support.
- A further focus for advocacy should be national and international decision makers, in the public and private sectors, who control the allocation of financial and other resources that could be used for pre-breeding. This is important, because resistance to funding multi-year activities, such as are needed for pre-breeding, is a major obstacle to overcome.

Roadmap for Next Steps

The following was agreed:

1. The Declaration of Intent will be presented at the Third High-level Roundtable on the International Treaty on Plant Genetic Resources for Food and Agriculture, Bandung, Indonesia, 2-4 July 2013, and at the Fifth Session of the Governing Body of the International Treaty, in Muscat, Oman, 24-28 September 2013 with the proposal for the establishment of a global facilitating initiative to promote public-private partnership for pre-breeding.
2. A side event on Public-Private Partnership For Pre-Breeding will be presented at at the Fifth Session of the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture, in Oman in September 2013.
3. Tom Payne (CIMMYT) undertook to prepare a paper on public-private partnerships for pre-breeding, and the lessons that could learned for the establishment of the initiative for promoting Public-Private Partnership, drawing on the experience of CIMMYT, and other organizations. He would consult Enrico Porceddu (Italy), Sidney Parentoni (EMBRAPA, Brazil), Carl Bulich, (GFP, Germany), Morten Rasmussen (Nordgen, Sweden) and Swapan Datta (India). The paper would be ready by 15 August 2013, and will be circulated for comments and inputs from other participants in the Consultation, by 1 September. This will be facilitated through web-based tools.
4. Enrico Porceddu (Italy) undertook to consult the International Seed Federation, to inform them of the initiative, and to request them to nominate persons who could represent the private sector in the further development of the Partnership.
5. An International Symposium on public-private partnerships in pre-breeding, would, if possible, be held in early 2014. FAO undertook to develop a concept note, and to seek support. Participants mentioned Norway and France as possible hosts. The Norwegian and French participants undertook to see if the relevant institutions in these countries would be interested and willing to collaborate in this initiative and provide support. They would work with the FAO Secretariat in this. It is hoped to be able to announce plans for the Symposium at the Governing Body of the International Treaty in September 2013.
6. The Symposium would be a forum for assessing the state of practice in public-private partnerships in crop improvement and on pre-breeding, needs, priorities, and potentials. The symposium would focus on the aims, scope of activities, structure and governance of the envisaged initiative.



Annex 1: Meeting Agenda

Time	Item	Responsibility
Day 1, Thursday, 30 May 2013		
0900	Formalities, registration, etc.	Organizing Secretariat
0930	<ul style="list-style-type: none"> • Welcome • Background to the consultation • Introduction of participants • Setting the stage: expectations 	FAO Participants
1000 to 1100	Principles for Principals: Striving to achieve win:win scenarios	Mr. Tom Payne CIMMYT, Mexico
	Pre-breeding at Embrapa-Brazil and public-private partnerships	Mr. Sidney Netto Parentoni EMBRAPA, Brazil
	Public-Private Partnership in Pre-Breeding in Canada.	Mr. Campbell Davidson AgFood Canada
	Public-private-partnerships in plant-breeding research within Germany	Mr. Carl Bulich GFP, Germany
1100 to 1130	Break	

Time	Item	Responsibility
1130 to 1300	Public-Private Partnership for Pre-breeding - a Nordic model	Mr. Morten Rasmussen Nordgen, Sweden
	Rationalizing the efforts of farmer-breeders, public national plant breeding, and private sector commercialization with seed systems that benefit farmers	Mr. Cal Qualset UC Davis, USA
	Public and Private Sectors, Natural and Artificial Evolution, Nucleus and Cytoplasm: It Takes Two to Tango	Mr. Farhad Ghavami University of North Dakota, USA
		Mr. Robert Domaingue CIRAD, France
	Pre-breeding: Science and Future Perspectives	Mr. SK Datta Indian Council of Agricultural Research India
1300 to 1400	Lunch	
1400 to 1515	Public-private partnerships and catalyzing success	Ms. Vivienne Anthony Syngenta Foundation, Switzerland

Time	Item	Responsibility
	What future for farmers' breeding in Europe	Mr. Riccardo Bocci Associazione Italiana Agricoltura Biologica
	Crop Wild Relatives - tapping a key resource	Mr. Hannes Dempewolf Global Crop Diversity Trust, Germany
	Capacity development for Pre-breeding : Training students	Mr. Mahmoud Duwayri University of Jordan
		Mr. Peter Button UPOV, Switzerland
1515 to 1530	General discussion and arrangements for discussions	
1530 to 1600	Break	
	Moderated Discussions	
1600 to 1700	What could the objectives, structure, membership and cooperation program of an international public-private partnership for pre-breeding entail?	Moderator:
	Needs for advocacy: means for creating awareness	

Day 2, Friday, 31 May 2013		
0900 to 0930	Needs for strengthening capacity: skill set, tools, facilities, etc. needed	Moderator:
0930 to 1000	Building partnerships: what the private sector expects, offers in return	
1000 to 1030	Building partnerships: what the public sector expects, offers in return	
1030 to 1100	Break	
1100 to 1130	Building a public-private partnership: policies, including considerations for IPR, benefit sharing	Moderator:
1130 to 1200	Practical action plans: recommendations for GIPB including materials to be produced, workshops, training programs	Moderator:
1200 to 1300	Communication to be transmitted to the Third High-level Roundtable: A road map for implementing an International public-private partnership for pre-breeding	Moderator:
1300 to 1430	Lunch	
1430 to 1500	Conclusion and departure	

Annex 2: List of Participants

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