

# Implementing the ITPGRFA

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## DEVELOPING-COUNTRY CONCERNS

The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) entered into force on 29 June 2004. In addition to dealing with various aspects of conservation, management and sustainable use of plant genetic resources for food and agriculture (PGRFA), this historic accord, while representing a legally binding, international commitment to improvement of the world's key food and feed crops, provides for farmers' rights. After accession to the Treaty, there is a need for each Contracting Party to review its existing policies, laws and regulations and, if

required, adopt new policies, laws and regulations to ensure that the obligations under the Treaty are effectively implemented. In this regard, it is crucial for each Contracting Party to work out a strategic plan to implement the Treaty within the context of its national vision of social, economic and cultural development, and international cooperation. This Policy Brief analyses some of the Treaty provisions and provides a general view on some of the major concerns of developing countries while implementing their obligations under the Treaty.

## Implementing the Treaty

After more than 15 sessions of the Committee on Genetic Resources of the Food and Agriculture Organization of the United Nations (FAO) and its subsidiary bodies, the ITPGRFA was approved during the FAO Conference in 2001. The Treaty was introduced to harmonize the International Undertaking on Plant Genetic Resources signed in 1983 with the Convention on Biological Diversity (CBD) (Box 1). As of the end of July 2007, 113 countries, 92 of which are developing countries, have acceded to the Treaty. As a Contracting Party, each country has to ensure the conformity of its laws, regulations and procedures with its obligations as provided in the Treaty.

Most developing countries have a key thrust of increasing productivity, competitiveness and value addition in agriculture, agro-based processing and agribusinesses; enhancing the capacity for knowledge and innovation; generating new wealth in knowledge-intensive future industries, particularly biotechnology products and specialty natural products; reducing poverty, particularly through assisting rural community in marginal areas in the management and use of biodiversity for improved livelihoods and food security; and strengthening international cooperation in the conservation and use of plant genetic resources (PGRs).

It is, therefore, vital for such countries to adequately understand the nature, scope and objectives of the ITPGRFA; assess their strengths and weaknesses in the implementation of the ITPGRFA; and strategically work out the effective mechanisms that they need to devise for the implementation of the Treaty, as well as for the achievement of their national development objectives.

### Conservation and sustainable use of PGRFA

The core of the ITPGRFA is the national obligation under Articles 5 and 6 on conservation and sustainable use of PGRFA. The efficient and effective implementation of measures and approaches identified in these two Articles will certainly assist developing countries in their efforts to achieve national development objectives. However, the first consideration is to what extent the implementation of such measures and approaches can enrich the gene pools of crops essential for national food security and agricultural productivity. There is, thus, a need to develop a national plan for a systematic and timely enrichment of gene pools of crops essential for national food security, particularly with regard to possible adverse impacts of climate change on agricultural productivity. In this process, it is crucial for the national plan to look for options to capitalize on emerging opportunities and manage resources to enrich crop gene pools. For example, new technological tools have opened up a number of opportunities for the enrichment of crop gene pools through the transfer of useful genes from related species and genera or any living organism but developing countries will have to be able to generate resources and enhance their national capacities to capitalize on such opportunities. Also crucial for them is to assess the impacts of the implementation of access and benefit sharing (ABS) and intellectual property right (IPR) rules on the flow of germplasm exchange.

Since developing countries will have to put more emphasis on enriching crop gene pools through local genetic resources, it is important that the implementation of measures under Articles 5 and 6 be further strengthened. Special consideration must be

## Box 1: About the CBD

Negotiated under the auspices of the United Nations Environment Programme (UNEP), the CBD opened for signature on 5 June 1992 at the Rio Earth Summit, and entered into force on 29 December 1993. The Convention is legally binding and Contracting Parties are obliged to implement its provisions. So far, 190 countries and the European Community are its members. The Convention has three objectives—the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising from the utilization of genetic resources. It also addresses issues relating to research and training, public education and awareness, and technical and scientific cooperation.

Article 15 of the Convention provides a framework for the implementation of ABS. In recognition of the sovereign rights of states over their biological resources, national governments, subject to their national laws, are conferred the authority to determine access to genetic resources. The Convention requires its Parties to create conditions, subject to allowed safeguards, to facilitate access to genetic resources for environmentally sound uses by other Parties on a bilateral basis.

*Adapted from: UNEP/CBD (2003).*

given to the survey and inventory of PGRFA that are of potential use; assessment and minimization of any threats to them; collection of PGRFA and the relevant associated information on those PGRs that are under threat or are of potential use; support for farmers and local communities in *in situ* management and conservation of their PGRFA; support for *in situ* conservation of wild crop relatives and wild plants for food production; development of an efficient and sustainable system of *ex situ* conservation, putting more emphasis on field collections of tree crops; and more support for documentation, characterization, regeneration and evaluation of the *ex situ* collections.

Conservation and sustainable use of PGRs are a long-term planning and implementation exercise. The general timeframe to develop new crop cultivars is 15–30 years. The Treaty has provided some strategic measures and approaches for this long-term framework. Within the framework, the actions for implementing the measures and approaches may include:

**ITPGRFA sets up a multilateral system of ABS, and its application is limited to such 64 PGRFA that are fundamental to food security and agriculture.**



- formulating a National Breeding Action Plan to realize the strategic economic development objectives/targets of agriculture and industries;
- establishing a stable, predictable source of fund such as a National Biodiversity and Gene Fund to support *in situ* and *ex situ* conservation;
- organizing an efficient network of *ex situ* conservation sites, gene banks, and research collections;
- establishing a National Management System to manage both *in situ* and *ex situ* collections;
- providing financial and extension support to indigenous and local communities to manage *in situ* sites;
- promoting the expanded use of local varieties and underutilized species;
- formulating and implementing seed laws on quality of planting materials;
- promoting private-sector investment in the conservation of genetic resources and the development of new cultivars through the provision of tax incentives to any natural and legal person who contributes to the National Biodiversity and Gene Fund, conserves genetic resources, produces and markets conservation varieties, including traditional varieties, and produces or manufactures products from conservation varieties, including traditional varieties.

### Access to plant germplasm

The other important element of the Treaty is the establishment of an international framework for the exchange of crop plant germplasm chosen on the basis of food security and interdependence. This Multilateral System of Access and Benefit Sharing (MLS) under Part IV of the Treaty is an important international instrument for the provision of access to PGRFA for the gene pool enrichment of Annex 1 crops at the global level. The first meeting of the Governing Body of the Treaty on 16 June 2006 adopted the Standard Material Transfer Agreement (SMTA) for the MLS. In this

regard, actions that have to be taken to implement the MLS and the SMTA include:

- placing into the MLS the PGRFA of Annex 1 crops that are under the management and control of the government and in the public domain;
- informing all legal and natural persons to use the SMTA for facilitated access to PGRFA in the MLS;
- informing/inviting all other holders of the PGRFA of Annex 1 crops to put their PGRFA into the MLS;
- providing for the MLS in national access legislation.

Equally important is the implementation of Articles 7 and 8 of the Treaty on international cooperation and technical assistance, particularly measures that will lead to increased utilization of adapted gene pools for the development of new cultivars. The genetic materials in the MLS have to be made useful to the breeders. The lack of resources and expertise at the national level for the enrichment of crop gene pools calls for collective efforts at regional and global levels. This process of transferring genes from unadapted raw materials to adapted gene pools that are useful to breeders would require international technical cooperation as envisaged under Articles 7 and 8. In this respect, national plans of developing countries need to include the following actions:

- strengthening regional and global cooperation on conservation, evaluation, documentation, genetic enhancement, plant breeding, seed multiplication, and access to and exchange of PGRFA—particularly PGRFA of underutilized crops, of crops with functional values for nutrition, and of crops with economic value for the development of new industries;
- strengthening the provision of South-South technical assistance.

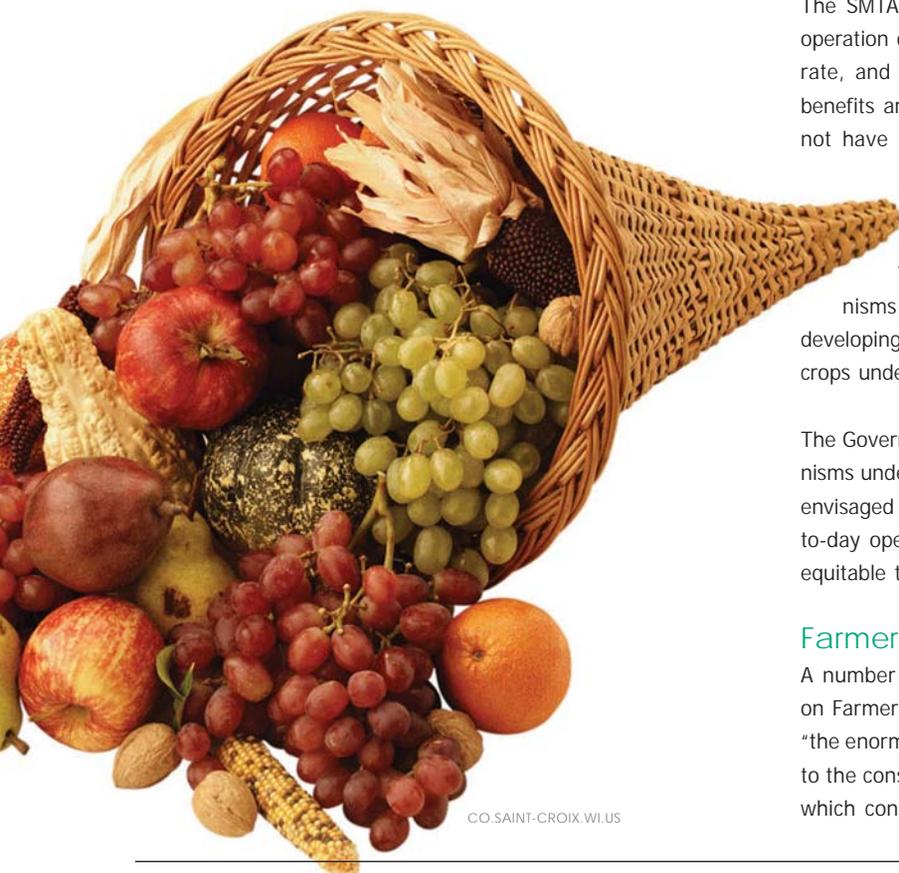
### Benefit sharing in the multilateral system

The SMTA is the most important instrument in the day-to-day operation of the MLS to facilitate access to PGRFA. It provides a rate, and modalities, of payment for the sharing of monetary benefits arising from commercialization. However, the MLS does not have any day-to-day operational mechanisms for the exchange of information as provided under Article 13.2 (a); access to and transfer of technology under Article 13.2 (b); and capacity building under Article 13.2 (c). The lack of such day-to-day operational mechanisms will surely heighten the concerns and reluctance of developing countries to place their PGRFA collections of Annex 1 crops under the MLS.

The Governing Body of the IT may have to work out such mechanisms under international cooperation and technical assistance as envisaged under Articles 7 and 8 of the Treaty. Without such day-to-day operational mechanisms, the MLS would not be fair and equitable to most developing countries.

### Farmers' rights

A number of resolutions were adopted by the FAO Conference on Farmers' Rights. FAO Conference Resolution 4/89 recognizes "the enormous contribution that farmers of all regions have made to the conservation and development of plant genetic resources, which constitute the basis for plant production throughout the



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world, and which form the basis for the concept of Farmers' Rights".

Following this, the definition of farmers' rights was adopted through FAO Conference Resolution 5/89 as "rights arising from the past, present and future contribution of farmers in conserving, improving and making available plant genetic resources, particularly those in the centres of origin/diversity. These rights are vested in the International Community, as trustees for present and future generations of farmers, for the purpose of ensuring full benefits of farmers and supporting the continuation of their contributions". The FAO Conference also adopted a resolution for the implementation of farmers' rights. Resolution 3/91 provided "that Farmers' Rights will be implemented through an international fund on plant genetic resources which will support plant genetic conservation and utilization programmes, particularly, but not exclusively, in the developing countries". However, in 1993, the FAO Conference recognized the need to take further steps to realize farmers' rights and adopted Resolution 7/93 to request the Director-General of the FAO to provide a forum for negotiations among governments on, *inter alia*, the issue of the realization of farmers' rights.

The negotiation on the realization of farmers' rights was long and difficult. Discussions began during the process of adopting the Global Plan of Action (GPA) for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture. The debate was whether farmers' rights is just a concept or it can be realized as ownership rights like plant breeders' rights (PBRs) or the stewardship rights of farming communities over their PGRs (See FAO 1996).

It was at the final hour that the Fourth International Conference on Plant Genetic Resources, which was held in Leipzig, Germany from 17 to 23 June 1996, adopted a text stipulating that one of the main aims of the GPA is "to promote a fair and equitable sharing of the benefits arising from the use of plant genetic resources for food and agriculture, recognizing the desirability of sharing equitably benefits arising from the use of traditional knowledge, innovations and practices relevant to the conservation of

PGRFA and their sustainable use; confirming the needs and individual rights of farmers and, collectively, where recognized by national law, to have non-discriminatory access to germplasm, information, technologies, financial resources and research and marketing systems necessary for them to continue to manage and improve genetic resources; and developing and/or strengthening policies and legislative measures, as appropriate, to promote fair and equitable sharing of benefits arising from the utilization of PGRFA in their exchange between communities and within the international community". Here, it should also be noted that one of the long-term objectives of supporting on-farm management and improvement of PGRFA is "to realize Farmers' Rights as defined in FAO Resolution 5/89 at the international, regional, and national levels".

After such developments at the Leipzig Conference, the international community got the basis for the negotiation of Article 9 on farmers' rights in the ITPGRFA. The negotiation on farmers' rights in the Treaty was, however, difficult. The most difficult issue was the conflict between PBRs and the rights that farmers have in relation to saving, using, exchanging and selling farm-saved seeds/propagating materials. Finally, Article 9 was adopted with provisions for farmers' rights in its sub-articles (Box 2).

Though Sub-article 9.3 of the Treaty provides for a negative right for farm-saved seeds/propagating materials, Article 9, as a whole, is one of the most important ITPGRFA provisions where Contracting Parties have given due recognition to the enormous contribution that the local and indigenous communities and farmers of all regions of the world have made for food and agricultural production.

The decision of implementing farmers' rights under ITPGRFA, however, rests with national governments. If national governments decide to do so, the processes of legislation and implementation of legislation are enormous tasks for policy-making and implementing bodies. There are a few models that national governments can follow but experimenting with new models is difficult and costly, especially in developing countries where there is a lack of capacity, expertise and resources (See IDRC-IPGRI-DHF 2001).

## Box 2: Provisions on farmers' rights in Article 9 of the ITPGRFA

Article 9 of the ITPGRFA has the following sub-articles on farmers' rights:

9.1 The Contracting Parties recognise the enormous contribution that the local and indigenous communities and farmers of all regions of the world, particularly those in the centers of origin and crop diversity, have made and will continue to make for the conservation and development of plant genetic resources which constitute the basis of food and agriculture production throughout the world.

9.2 The Contracting Parties agree that the responsibility for realising Farmers' Rights, as they relate to plant genetic resources for food and agriculture, rests with national governments. In accordance with their needs and priorities,

each Contracting Party should, as appropriate, and subject to its national legislation, take measures to protect and promote Farmers' Rights, including: (a) protection of traditional knowledge relevant to plant genetic resources for food and agriculture; (b) the right to equitably participate in sharing benefits arising from the utilisation of plant genetic resources for food and agriculture; and (c) the right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture.

9.3 Nothing in this Article shall be interpreted to limit any rights that farmers have to save, use, exchange and sell farm saved seed/propagating material, subject to national law and as appropriate.

Source: FAO (2002).

Some proposals for implementing the various elements of farmers' rights include the intellectual use and protection of traditional knowledge (TK) (Chart 1).

TK has been used to develop new resources or products which are protected by the conventional IPR systems. Similarly, at the resource side, new plant varieties can be protected by patents or *sui generis* protection, including PBRs. At the product side, new products such as drugs and biochemicals can be protected through patents. The product protection also includes copyrights of designs or artworks, trademarks and geographical indications (GI). TK embedded in a resource, product or process can also be defensively protected as public goods when it is documented and pub-



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lished (Adams and Henson-Apollonio 2002). TK can also be kept as a trade secret. Justifications put forward to protect TK include preserving traditional practices and culture, conserving biodiversity, promoting its use in national development, addressing equity considerations, and preventing appropriation by unauthorized parties. In 2006, the World Intellectual Property Organization put forward revised provisions for the protection of traditional cultural expressions, expressions of folklore and the revised provisions for the protection of TK (See WIPO 2006).

There are also suggestions for using GI as an alternative way to conventional IPR systems for promoting local varieties and related knowledge in developing countries (Boisvert 2006). This is an interesting development. Regions with a strong tradition of using local varieties and knowledge to produce quality products would certainly benefit from the use of GI. In particular, GI would certainly help in the implementation of some forms of farmers' rights, especially the use of local varieties and TK in product processing and development as well as the benefits arising from IPR protection.

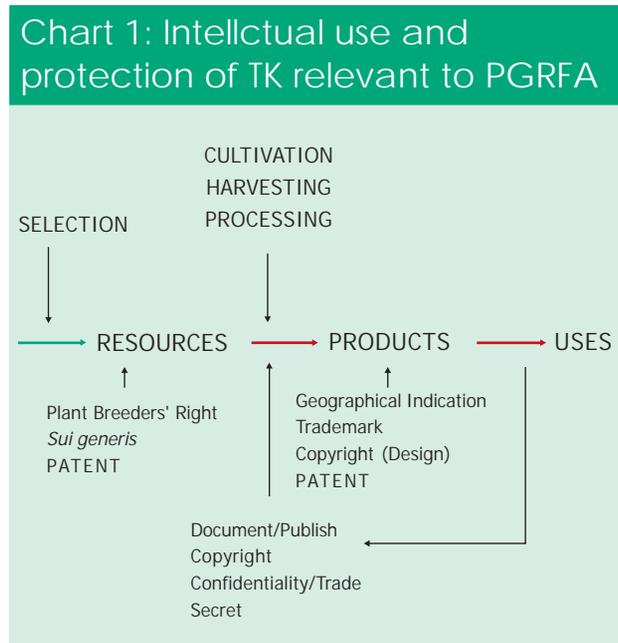
A few countries, in their national legislation, have provided for farmers to have certain legal control over use by others of the

materials that they have developed and conserved. A major issue in these legislation is providing a set of criteria or conditions to define farmers' varieties. For example, the African Model Law on the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Genetic Resources does not contain a definition of farmers' varieties. However, it does state that "a variety with specific attributes identified by a community shall be granted intellectual protection through a variety certificate which does not have to meet the criteria of distinction, uniformity and stability". Similarly, the Indian Plant Variety Protection and Farmers' Rights Act 2001 defines farmers' variety as "a variety which (i) has been traditionally cultivated and evolved by the farmers in their fields; or (ii) is a wild relative or land race of a variety about which the farmers possess the common knowledge". On the other hand, the Malaysian Protection of New Plant Varieties Act No.634 of 2004 states that farmers' varieties can be protected if they are new, distinct and identifiable.

Besides these complexities over the issue of farmers' varieties, there are also concerns regarding the requirement of prior informed consent (PIC) of farmers for the use by others of their materials. Such concerns include:

- the PIC requirement would act as a disincentive for breeders who want to use farmers' varieties for the development of new varieties;
- the farmers or farming communities may have to track changes in the composition and characteristics of the local varieties as a result of the introduction of new varieties;
- the percentage of the contribution and the value of the contribution from the varieties that have been developed by the farmers or farming communities;
- the criteria of varieties as they are found in farmers' fields.

Indeed, the operational difficulties have generated a challenge for the legal system to set criteria for and define farmers' varieties. There are also challenges with regard to the registration of such varieties; identification of the authority representing the local communities or indigenous people having varieties; and the operationalization of a legally binding format for PIC. Given that



farmers' varieties are developed over a longer period of time and in highly complex systems of human-plant-environment interactions, it would be difficult to use distinct, stable and uniform criteria to define such varieties. However, the criteria to define farmers' or traditional varieties can include the following elements that have been proposed under the revised draft provisions for the protection of TK published by the WIPO in 2006:

- developed, conserved and used in a traditional and intergenerational context;
- distinctively associated with a local or indigenous community which conserves and uses the varieties between generations;
- integral to the cultural identity of an indigenous or local community which is recognized as holding the varieties through a form of custodianship, guardianship, stewardship, collective ownership or cultural responsibility; and
- have distinctive functional traits such as taste, aroma, cooking quality, colour and medicinal value which are associated with the culture of the local communities



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### Institutional framework for the Treaty

The institutional framework for the implementation of the Treaty has to be strengthened. More resources are needed to strengthen national institutions to monitor and evaluate the implementation of the GPA under Article 14 of the Treaty; to organize the national information system on scientific, technical and environmental matters relating to PGRFA and contribute to the Global Information System on Plant Genetic Resources for Food and Agriculture under Article 17 and to formulate country positions in the meetings of the Governing Body; to look into procedures and operational mechanisms of compliance as well as matters of disputes; and to study amendments to the Treaty.

## Conclusion

The Treaty is an important agreement for the international management of PGRFA and the facilitation of their sustainable use for the welfare of the international community. It recognizes the enormous contributions from international cooperative efforts towards the conservation, management and sustainable use of PGRFA for world food security. However, as mentioned in above sections, there are concerns on the part of developing countries in the implementation of the Treaty which need to be addressed. ■

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