



Photo: FAO/WHO

International Treaty on Plant Genetic Resources for Food and Agriculture

Plant genetic resources for food and agriculture are the basis for the world supply of food and for all breeding efforts. Free movement of germplasm is an essential prerequisite for the adaptation of crops to changing environmental conditions and market requirements. As most crop plants today are spread throughout the world, there is tremendous global interdependence with regard to these resources. Every country is dependent on secure access to suitable breeding material. Most of this material these days is no longer found under *in situ* conditions in southern nations, but is stored in gene banks (*ex situ*). Up to 95% of the known cultivated species used in agriculture are stored in gene banks worldwide. According to the Report on the State of the World's Plant Genetic Resources (FAO 1996), stored collections of e.g. wheat account for 95% of cultivated varieties and 60% of wild varieties, with equivalent figures for maize of 95% and 15% and for potatoes of 95% and 40% respectively.

After seven years of negotiations, the International Treaty on Plant Genetic Resources for Food and Agriculture ("IT") was adopted in Rome in November 2001. The broad goal of the treaty is to create a legally binding framework for the protection and sustainable use of all plant genetic resources for food and agriculture. The multilateral approach taken in the IT to facilitating access to propagating material for the most important food crops and forages, including early cultivated varieties and wild crop relatives, is intended to ensure that transborder exchange is maintained.

IT - summary

Farmers' rights and contributions

For years, Farmers' Rights have been the focus of international dispute about plant genetic resources for food and agriculture. The recognition of Farmers' Rights at the international level acknowledges the contribution of farmers since the start of arable farming in creating and preserving the vast biological variety in agriculture. Farmers' Rights (Art. 9) are intended to ensure that farmers have access to good seed. Art. 9 explicitly notes that it is not intended to limit the rights of farmers to save, use, exchange and sell farm-saved seed or propagating material. Farmers' Rights are intended to provide a counterweight to the ►

From International Undertaking to International Treaty (IT)

The IT replaces the International Undertaking, a commitment to the conservation and use of plant genetic resources for food and agriculture which had existed since 1983 in non-binding form under the FAO umbrella, and whose provisions had to be revised after the adoption of the Convention on Biological Diversity (CBD). The IT now regulates a number of problem areas which have been controversial in recent years, including some omitted from the CBD drafting process as potential risks to its adoption. This specifically relates to Farmers' Rights and the use of the extensive *ex situ* collections of plant genetic resources of national and international institutions and research centres. The centrepiece of the IT is the creation of a multilateral system intended to facilitate access to a range of crop plant genera and species. In addition, the IT sets out to regulate the fair and equitable sharing of benefits arising out of the use of the plant genetic material made available. The treaty will enter into binding force in international law 90 days after ratification by 40 states, probably in 2004/2005. Only then will a Governing Body of representatives from all member states begin to implement the treaty in concrete terms.



Photo: FAO, J. Isaac

- ▶ intellectual property rights which industry and the industrialised nations are now demanding for breeding products and other developments in green genetic engineering. The IT establishes Farmers' Rights for the first time in the context of a legally binding, international commitment. They are, however, only vaguely described, and the responsibility for their realisation rests with national governments.

Box 1: Farmers' Rights (Art. 9) in the IT relate to:

- the protection of traditional knowledge relevant to plant genetic resources for food and agriculture;
- the right to equitably participate in sharing benefits arising from the utilisation of plant genetic resources for food and agriculture; and
- 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.

Facilitated access to plant genetic resources: the multilateral system

The core of the IT is a so-called multilateral system, which is to be created in order to facilitate access to plant genetic resources for food and agriculture. While the general provisions of the IT create a legally binding framework for lasting conservation of **all** plant genetic resources for food and agriculture, the provisions governing facilitated access and fair distribution of benefits are limited to the plant genera and species listed in the annex to the treaty. To date, this list comprises 35 food crops and 29 forages. These were selected on the basis of their importance for food security, and together cover 80% of the calorie intake of the world's population. No agreement could be reached on other important species, e.g. soya, by the end of the negotiations. However, these could still be added to the list later. There is great international interdependence with respect to the crops included in the multilateral system. Most of them are spread worldwide today, and breeding is dependent on the availability of these resources.

Facilitated access to the collections of the multilateral system shall be provided solely for research, breeding or training purposes serving food security in the broader sense of the term. Such access will not be provided for the purpose of chemical, pharmaceutical or other (industrial) uses.

Fair and equitable benefit sharing

Besides recognising the importance of the multilateral system and the benefits arising solely out of its creation, the IT provides the following mechanisms for fair benefit sharing: exchange of information, access to and transfer of technology, capacity building, and the sharing of monetary benefits arising from commercialisation. These benefits should flow primarily to the farmers in developing countries for their contributions in developing and conserving plant genetic resources.



Photo: FAO



Photo: FAO, G. Bizzarri

Box 2: Provisions on benefit sharing (Art. 13)

- **Exchange of information:** The information made available under the multilateral system includes catalogues and inventories, nonconfidential information on technologies, the results of technical and socio-economic research, and research into characterising and evaluating plant material.
- **Access to and transfer of technology:** The parties to the treaty undertake to provide or facilitate access to technologies for the conservation, characterisation, evaluation and use of plant genetic resources for food and agriculture which are under the multilateral system. This includes access to improved varieties and genetic material developed through the use of plant material obtained from the multilateral system. Technology transfer to developing countries will accordingly be promoted, although applicable intellectual property rights shall be recognised and effectively protected.
- **Capacity building:** Creation of institutional and personnel capacity for the conservation and sustainable use of plant genetic resources will be promoted through education and research programmes in developing countries.
- **Sharing of monetary and other benefits of commercialisation:** If improved varieties from plant material of the multilateral system are developed and commercialised in a way that limits further use for research and breeding, the treaty provides for mandatory payments. This applies primarily to the award of intellectual property rights, unless corresponding exceptions are made in the relevant national framework. In all other cases, commercial users are “encouraged” to make voluntary payments.

Everything is in flux – provisions for a standard material transfer agreement are still lacking

On ratification of the IT the parties to the treaty agree to facilitate access among themselves to the plant collections included in the multilateral system. Access to the genetic resources in the multilateral system must be expeditious and at minimal cost. The details of the conditions for access still have to be set out in detail, in a so-called standard material transfer agreement (MTA). It is planned to create a form of linked obligation, so that everybody receiving material is tied to the provisions of the MTA. The obligations arising under the transfer agreement must only be complied with by direct parties to the MTA. The Contracting Parties are not obliged to track what happens subsequently to the material transferred.

The major collections held by the International Agricultural Research Centres

The multilateral system covers all plant genetic resources that are (a) listed in the annex to the treaty, (b) under the management and control of the Contracting Parties, and (c) in the public domain. A central role in this is played by the plant collections maintained *ex situ* by the International Agricultural Research Centres (IARCs) and other international institutions.

The seed banks and plant collections of the Consultative Group for International Agricultural Research (CGIAR) contain the most important collections of germplasm for international plant breeding. To keep these freely accessible to interested parties, they were placed under the supervision of the FAO in the 90s. Access has since been granted on the basis of a specific material transfer agreement which requires the recipient of materials not to claim ownership over the material, nor to seek intellectual property rights over these resources.

The IT recognises the outstanding importance of the *ex situ* collections held by the IARCs and calls on the centres to formulate agreements on access modalities with the Governing Body. This will be done by a differentiated system of material transfer agreements (cf. box 3, on the next page).

Box 3: Access to the IARC collections (Art. 15)

- Plant genetic resources listed in the IT annex and held by the IARCs shall be made available in accordance with the provisions of the multilateral system.
- Plant genetic resources for food and agriculture held in IARC collections **other than those listed in the IT annex** and collected **before** entry into force of the IT shall be made available in accordance with existing arrangements. These will be brought into closer correspondence with the IT provisions in due course by the Governing Body.
- Plant genetic resources **other than those listed in the IT annex** and collected **after** the coming into force of the IT shall be accessible under conditions agreed between the recipient IARC and the country of origin of the resources or the country which has acquired the resources in accordance with the Convention on Biological Diversity or some other applicable law.

Need for action in the context of international development cooperation

In the course of the impending formulation of the material transfer agreement and implementation of the IT it will be important to prevent provisions being undermined at the cost of the developing countries. This applies particularly to the interpretation of provisions which have so far been only vaguely expressed in the treaty. Resolution of the following questions is particularly urgent for the interests of the developing countries: When can IPR be awarded over improved varieties and genetic material? What genetic distance is required between the genetic material which is the subject of the IPR application and the initial material taken from the system? What payment

modalities are required if commercialisation of newly developed products is associated with restrictions on third party research and breeding?

A key task of technical cooperation in the coming years will be to assist partner countries in the following areas:

- concretising and implementing Farmers' Rights;
- institutional and personnel capacity building, by promoting training programmes, strengthening facilities for conservation and sustainable use of plant genetic resources, and carrying out research projects in partner countries;
- developing policies and legislation for implementing the IT at national level. For this, interfaces must be formulated with other treaties, and specifically the Convention on Biological Diversity and WTO-TRIPS Agreement.

In addition, it should be considered to what extent the principles of the IT can be transferred to other areas of biological diversity, e.g. farm animal genetic resources. These are also very important for global food security.

Further information:

International treaty on plant genetic resources for food and agriculture

<http://www.fao.org/ag/cgrfa/itpgr.htm> (English)

UK Food Group: <http://www.ukabc.org/iu2.htm>

Fowler, C. (2003): The Status of Public and Proprietary Germplasm and Information: an assessment of recent developments at FAO, IP-strategy today No 7 (<http://www.biodevelopments.org/ip/ipst7.pdf>)

Girsberger, Martin (2002): Keine Patente mehr auf Weizen und Co.? Die immaterialgüterrechtsrelevanten Bestimmungen des "Internationalen Vertrages über pflanzen-genetische Ressourcen für Ernährung und Landwirtschaft der FAO, (No more patents for Wheat and Co? The provisions of the FAO)" in: Zeitschrift für Immaterialgüter-, Informations- und Wettbewerbsrecht, online version (http://www.ige.ch/pool4s/sic/sic02/2002_541.html).

The document is a working paper. We will improve it in a step-by-step process, building upon your comments and experience.

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