

The FAO Global System for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture

(summary of presentation – part 2)

I. The FAO Commission on Genetic Resources for Food and Agriculture

The 1983, the FAO Conference established the FAO Commission on Plant Genetic Resources, which was the first permanent intergovernmental forum in the United Nations system to deal with agricultural biological diversity. In 1995, its mandate was broadened to cover all components of biological diversity of interest to food and agriculture, when it became the Commission on Genetic Resources for Food and Agriculture. At present, 160 countries and the European Union are members of the Commission, which usually holds a regular meeting at two-year intervals, and extraordinary sessions as required. The Commission provides a forum for governments to discuss matters and negotiate agreements on all matters of common interest related to agrobiodiversity. It aims to reach international consensus on matters of global interest. The Commission reviews and advises FAO on its policy, programme and activities related to the conservation, sustainable use and equitable sharing of benefits derived from the utilization of genetic resources of relevance to food and agriculture. Relevant technical assistance agencies, intergovernmental organizations, development banks, nongovernmental organizations and private foundations also attend the sessions of the Commission, and report to it on their programme and activities on genetic resources for food and agriculture.

II. Development of the FAO Global System

The Commission's terms of reference specify that it will 'recommend such measures as may be necessary or desirable to ensure the development, as appropriate, of a comprehensive global system or systems on genetic resources of relevance to food and agriculture and to monitor the operation of its/their components, in harmony, where applicable, with the Convention on Biological Diversity and other relevant international instruments'.¹

Throughout the years, the Commission has accordingly coordinated, overseen and monitored the development of a Global System for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture. The objectives of the Global System are to ensure the safe conservation and promote the availability and sustainable utilization of plant genetic resources, for present and future generations, by providing a flexible framework for

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¹ Its terms of reference also state that the Commission will 'facilitate and oversee cooperation between FAO and other international governmental and non-governmental bodies dealing with the conservation and sustainable use of genetic resources, in particular with the Conference of Parties to the Convention on Biological Diversity and the UN Commission on Sustainable Development, and will seek to develop appropriate mechanisms for cooperation and coordination in consultation with such bodies.

sharing the benefits and burdens. The System covers both the conservation of plant genetic resources (*ex situ* and *in situ*, including on-farm) and their sustainable utilization. The Global System contains a number of elements, as shown in Figure 3.1.

III. The International Undertaking on Plant Genetic Resources for Food and Agriculture

The keystone of the Global System has been the International Undertaking on Plant Genetic Resources for Food and Agriculture, which was adopted by a resolution of the 1983 FAO Conference, and interpreted and complemented by three further Conference resolutions, in 1989 and 1991. The International Undertaking was the first comprehensive international agreement dealing with plant genetic resources for food and agriculture. It promotes international harmony in matters regarding PGRFA. One hundred and thirteen countries have adhered to the Undertaking, which seeks to ‘ensure that plant genetic resources of economic and/or social interest, particularly for agriculture, will be explored, preserved, evaluated and made available for plant breeding and scientific purposes’.

In 1992, Agenda 21 called for the strengthening of the FAO Global System on Plant Genetic Resources, and its adjustment in line with the outcome of negotiations on the Convention on Biological Diversity. In 1993, the FAO Conference accordingly requested FAO to provide a forum in the FAO Commission on Genetic Resources for Food and Agriculture, for negotiation among governments, for:

- the revision of the International Undertaking on Plant Genetic Resources, in harmony with the Convention on Biological Diversity
- consideration of the issue of access on mutually agreed terms to plant genetic resources, including *ex situ* collections not addressed by the Convention on Biological Diversity
- the issue of the realization of Farmers’ Rights

IV. Adoption of the International Treaty on Plant Genetic Resources for Food and Agriculture

The negotiations for the revision of the Undertaking started, in November 1994, at the first extraordinary session of the Commission on Plant Genetic Resources. They continued until, on 3 November 2001, the Thirty-first FAO Conference adopted the International Treaty on Plant Genetic Resources for Food and Agriculture, by unanimity.²

The International Treaty entered into force on 29 June 2004, 90 days after ratification by 40 countries. It is envisaged that the first session of the Governing Body, composed of all Contracting Parties to the Treaty, will be convened in 2005 or 2006. Until then, the FAO Commission on Genetic Resources for Food and Agriculture will act as the Interim Committee for the Treaty, and will oversee a number of tasks to be undertaken in the interim period.

The International Treaty will then supersede the International Undertaking, including in relation to the *ex situ* collections of plant genetic resources for food and agriculture held in trust by the International Agricultural Research Centres of the Consultative Group on International Agricultural Research. Until then, the International Undertaking, under the aegis of the FAO Commission on Genetic Resources for Food and Agriculture, is the governing agreement.

² With two abstentions: the USA and Japan.

The International Treaty on Plant Genetic Resources for Food and Agriculture

- Is at the crossroads between agriculture, trade and the environment. It provides agriculture with a new, legally binding instrument on a par with trade and environmental instruments, and promotes harmony and synergy across the sectors.
- Covers all plant genetic resources relevant to food and agriculture. Its objectives are the conservation and sustainable use of plant genetic resources and the fair and equitable benefits arising out of their use, in harmony with the Convention on Biological Diversity, for sustainable agriculture and food security. It aims at ensuring that the inherited capital they represent is conserved, and continues to supply the flow of services on which food security and development depend.
- Establishes a Multilateral System of Access and Benefit sharing for plant genetic resources, for an agreed list of crops, established on the basis of interdependence and food security. The list currently covers 35 food crops, and 29 forage genera, representing more than 80% of the world's calorie intake. The genetic resources of these crops are pooled. The country of origin cannot therefore be the basis of benefit sharing, which means that the benefits must also be shared on a multilateral, rather than on a bilateral basis.
- Provides for benefit sharing through information exchange, technology transfer, capacity-building, and the mandatory sharing of the monetary and other benefits of the commercialization of products incorporating material accessed from the Multilateral System. The primary focus is on farmers in the developing world, who conserve and sustainably utilize plant genetic resources for food and agriculture.
- Includes a Funding Strategy to mobilize funding for priority activities, plans and programmes, in particular, in developing countries and countries with economies in transition, taking into account the Global Plan of Action adopted in Leipzig in 1996.
- Provides for the realization of Farmers' Rights by national governments through:
 - the protection of relevant traditional knowledge
 - equitable participation in sharing benefits derived from the use of PGRFA
 - participation in national decision-making related to their conservation and sustainable use.

V. The International Network of *ex situ* collections under the auspices of FAO

The Commission called for the development of the International Network in 1989, in line with Article 7.1(a) of the International Undertaking, because of uncertainty regarding the legal situation of *ex situ* germplasm in genebanks, and of the lack of appropriate agreements to ensure its safe conservation. Moreover, the provisions regarding access to genetic resources in the Convention on Biological Diversity (Article 15) do not apply to *ex situ* collections assembled prior to its entry into force.

Twelve International Agricultural Research Centres of the Consultative Group on International Agricultural Research accordingly signed agreements with FAO in 1994, placing most of their collections (some 500 000 accessions) in the International Network. Through these agreements, the Centres recognized the 'intergovernmental authority of FAO and its Commission in setting policies for the International Network'. They accept, in particular, to hold designated germplasm 'in trust for the benefit of the international community' and 'not to claim ownership, or seek intellectual property rights over the designated germplasm and

related information'. In releasing these materials, the Centres pass the same obligations on to the recipient, and all further recipients, by means of a standard Material Transfer Agreement approved by the Commission.

The regional collections of the International Coconut Genetic Resources Network (COGENT), held by the governments of India, Indonesia and Côte d'Ivoire, have also been brought into the Network since October 1998, through agreements signed between FAO, the host countries on behalf of their respective regions, and the International Plant Genetic Resources Institute, on behalf of COGENT.

The Commission noted that the final form of such agreements would depend upon the outcome of the negotiations for the revision of the International Undertaking. The International Treaty, in fact, specifically recognizes the importance to the Treaty of the *ex situ* collections of plant genetic resources for food and agriculture held in trust by the IARCs. Article 15 provides for agreements to be signed with them, and other relevant international institutions, with regard to their *ex situ* collections. Plant genetic resources for food and agriculture in the Treaty's Multilateral System will be distributed under the terms of a standard Material Transfer Agreement to be agreed by the Governing Body. Other plant genetic resources for food and agriculture, collected before the entry into force of the Treaty, will be distributed under the terms of another Material Transfer Agreement agreed by the Governing Body. This should help reduce international tensions around the transfer and use of plant genetic resources for food and agriculture, and facilitate collecting and exchange.

VI. International Plant Genetic Resources Networks

The Commission has recognized that crop-related networks are a useful approach to integrating activities on plant genetic resources within the Global System, and to strengthening practical linkages between the conservation and sustainable utilization of crop genetic resources. FAO has therefore continued to support the establishment of global and regional crop-related networks, covering a large variety of cultivated species, in close collaboration with relevant scientific organizations. In recent years, the complementarity of *in situ* and *ex situ* strategies has been recognized. The Commission has therefore called for the establishment of networks of *in situ* conservation areas, which would include 'on-farm' conservation of crops and *in situ* conservation of crop wild relatives.

The International Treaty encourages cooperation in international plant genetic resources for food and agriculture networks, on the basis of existing arrangements, so as to achieve as complete coverage as possible of plant genetic resources for food and agriculture. It states that the Contracting Parties will therefore encourage all relevant institutions, including governmental, private, nongovernmental, research, breeding and other institutions, to participate in international networks.

VII. The State of the World's Plant Genetic Resources for Food and Agriculture and The Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture

Two important policy documents were produced in the context of the Leipzig International Technical Conference on Plant Genetic Resources, which FAO convened in 1996: the first

Report on the State of the World's Plant Genetic Resources for Food and Agriculture; and the rolling Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture.

In 1989, the Commission recommended the preparation of a periodic Report on the State of the World's Plant Genetic Resources, which would analyze the current plant genetic resources situation, and describe activities and programmes being carried out by regional, international and nongovernmental organizations, with the aim of identifying gaps, constraints and emergency situations. On this basis, the Commission could recommend priorities and ways of harmonizing the overall effort. The Commission also agreed that the needs, emergencies and priorities identified in the Report on the State of the World's Plant Genetic Resources would provide the basis for the operation and periodic updating of a Global Plan of Action.

In preparing for the Leipzig International Technical Conference, 158 governments prepared country reports, assessing the status of their plant genetic resources, and their capacity to conserve and utilize them: the first Report on the State of the World's Plant Genetic Resources is largely based on this information. The Report assesses the state of plant genetic diversity and capacities at local, national, regional and global levels, for *in situ* management, *ex situ* conservation and sustainable utilization. It identifies current gaps and needs and priorities, which are addressed in the Global Plan of Action. The International Technical Conference welcomed the Report as the first comprehensive worldwide assessment of the state of plant genetic resources conservation and use.

In 1991, the Commission also requested the preparation of a rolling Global Plan of Action on Plant Genetic Resources for Food and Agriculture, in order to identify the technical and financial needs for ensuring conservation and promoting sustainable use of plant genetic resources, with programmes and activities aimed at filling in gaps, overcoming constraints and facing emergency situations.

The Plan was developed under the guidance of the Commission, through a country-driven preparatory process that included 12 regional and subregional meetings at which governments discussed regional problems and opportunities and made recommendations for the Plan. This helped catalyze the formation and strengthening of national programmes and regional networks and promoted scientific cooperation. The Plan comprises 20 priority activities, covering *in situ* and *ex situ* conservation, plant genetic resources utilization, and institution and capacity-building. The implementation of the rolling Plan is monitored by the Commission on Genetic Resources for Food and Agriculture.

The Global Plan of Action was formally adopted by 150 countries at the Leipzig International Technical Conference. In adopting the Plan, Governments also adopted the Leipzig Declaration, through which they committed themselves to taking the necessary steps to implement the Global Plan of Action.

The International Treaty acknowledges that the conservation, exploration, collection, characterization, evaluation and documentation of plant genetic resources for food and agriculture are essential in meeting the goals of the Rome Declaration on World Food Security and the World Food Summit Plan of Action, and for sustainable agricultural development for this and future generations, and that the capacity of developing countries and countries with economies in transition to undertake such tasks needs urgently to be reinforced. It notes that the Global Plan of Action is an internationally agreed framework for such

activities, and provides that Contracting Parties should promote the effective implementation of the rolling Global Plan of Action, including through national actions and international cooperation to provide a coherent framework for capacity-building, technology transfer and exchange of information.

VIII. Funding Strategy

The International Treaty makes provision for a Funding Strategy, to enhance the availability, transparency, efficiency and effectiveness of the provision of financial resources to implement activities under the Treaty. An appropriate mechanism, such as a trust account, will be established for receiving and utilizing financial resources for purposes of implementing the Treaty.

In order to mobilize funding for priority activities, plans and programmes, in particular, in developing countries and countries with economies in transition, and taking the Global Plan of Action into account, the Governing Body shall periodically establish a target for such funding. The Contracting Parties shall take the necessary and appropriate measures within the Governing Bodies of relevant international mechanisms, funds and bodies to ensure due priority and attention to the effective allocation of predictable and agreed resources for the implementation of plans and programmes under the Treaty. Developed country Parties provide financial resources for the implementation of the Treaty through bilateral and regional and multilateral channels, which developing country Parties and those with economies in transition may avail themselves of.

Also, part of the financial strategy are the monetary benefits arising from the commercial use of plant genetic resources for food and agriculture from the Treaty's Multilateral System of Facilitated Access and Benefit Sharing. Someone who obtains a commercial profit from the use of these genetic resources is obliged, by a standard Material Transfer Agreement, to share these profits fairly and equitably, and pay an equitable royalty to a Fund overseen by the Treaty's Governing Body, as part of its funding strategy. Payment is mandatory on the commercialization of a product that is a plant genetic resource and that incorporates material accessed from the Multilateral System, when this product is not available without restriction to others for further research and breeding. It is voluntary when it is. At its first meeting, the Governing Body will determine the level, form and manner of the payment, in line with commercial practice. It may establish different levels of payment for various categories of recipients commercializing such products, and from time to time review the levels of payment.

Priority will be given to the implementation of agreed plans and programmes for farmers in developing countries, especially in least developed countries, and in countries with economies in transition, who conserve and sustainably utilize plant genetic resources for food and agriculture.

IX. The World Information and Early Warning System on PGR

Under the guidance of the Commission, FAO has established the World Information and Early Warning System, which collects, disseminates and facilitates the exchange of information that governments provide on plant genetic resources collections and related technologies. This is an important tool for the periodic updating of the Report on the State of the World's Plant Genetic Resources. Its databases contain data on: the location of over 5.5 million plant genetic resources

accessions, in some 1410 *ex situ* collections around the world; the structure and activities of national plant genetic resources programmes in almost all countries; some 8000 seed-supplying institutions around the world; commercial crop varieties, and relevant non-FAO databases and how to obtain information from them. An Early Warning Mechanism is being developed to draw rapid attention to hazards threatening the operation of *ex situ* collections, and to the danger of the extinction of plant species and the loss of the genetic diversity of crops for food and agriculture.

The International Treaty also provides for the development and strengthening of a global information system to facilitate the exchange of information, based on existing information systems, on scientific, technical and environmental matters related to plant genetic resources for food and agriculture. This will also provide early warning about hazards that threaten the efficient maintenance of PGRFA.

X. Codes of Conduct and Guidelines

A number of Codes of Conduct and Guidelines have been negotiated under the aegis of the Commission on Genetic Resources for Food and Agriculture.

The *International Code of Conduct for Plant Germplasm Collecting and Transfer* was adopted by the FAO Conference in 1993. It provides a guide which governments may use until they develop their own national regulations.

A draft *Code of Conduct for Biotechnology as it relates to Genetic Resources for Food and Agriculture* was prepared at the request of the Commission and considered at its Fifth Session in 1993. The draft Code includes provisions to maximize the positive effects of biotechnology and minimize potentially negative effects of agrobiotechnologies. The Ninth Regular session of the Commission, in late 2002, will begin consideration of the draft.

FAO and the International Plant Genetic Resources Institute have, since 1989, jointly published *Technical Guidelines for the Safe Movement of Plant Germplasm*. The Commission has also agreed on a set of *Genebank standards*, jointly prepared by FAO and the International Plant Genetic Resources Institute.

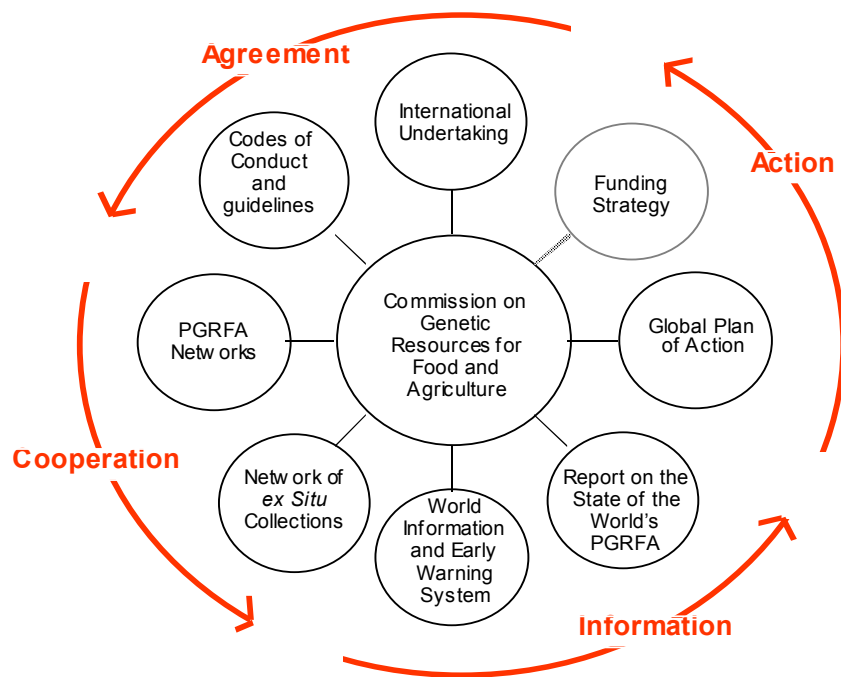


Fig. 2.1. The Global System for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture.