
PROGRESS REPORT ON THE FAO GLOBAL SYSTEM FOR THE CONSERVATION AND UTILIZATION OF PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

REPORT BY THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Introduction

1. The Conference of the Parties (CoP), at its Second Meeting, considered a report on the FAO Global System for the Conservation and Utilization of Plant Genetic Resources for Food and Agriculture, introduced by the Chairman of the FAO Commission on Genetic Resources for Food and Agriculture.¹ The CoP then adopted Decision II/15 on the FAO Global System, and, by Decision II/18, on the Medium-Term Programme of Work 1996/97, agreed that the Third CoP would consider a report on progress under the FAO Global System.² In addition, Decision II/16 requested that the outcome of the International Technical Conference be reported to the Third CoP,³ and that the *Report on the State of the World's Plant Genetic Resources*⁴ and the *Global Plan of Action for the Conservation and Utilization of Plant Genetic Resources for Food and Agriculture* be made available.⁵ The current document, supported by the *Report of the Leipzig Conference*, the *Report on the State of the World's Plant Genetic Resources*, and the *Global Plan of Action*, responds to the CoP's requests.

2. In Decision II/15, *FAO Global System for the Conservation and Utilization of Plant Genetic Resources for Food and Agriculture*, the *Conference of the Parties*:

“Recognizing the special nature of agricultural biodiversity, its distinctive features and problems needing distinctive solutions;

“Taking note of the Global System for the Conservation and Utilization of Plant Genetic Resources for Food and Agriculture developed by member countries of the Food and Agriculture Organization of the United Nations (FAO) through the FAO Commission on Plant Genetic Resources, and the recommendation for strengthening it expressed in chapter 14 of Agenda 21;

“Recalling that Resolution 3 of the Nairobi Final Act of the Conference for the Adoption of the Agreed Text of the Convention on Biological Diversity recognized ‘the need to seek solutions to outstanding matters concerning plant genetic resources within the Global System for the Conservation and Use of Plant Genetic Resources for Food and Sustainable Agriculture, in particular (a) access to *ex situ* collections not acquired in accordance with this Convention; and (b) the question of farmers’ rights’;

“1. *Considers* that the outstanding matters should be resolved as soon as possible;

“2. *Declares* its support for the process engaged in the FAO Commission on Plant Genetic Resources to comply with these recommendations, especially through:

¹ UNEP/CBD/COP/2/18. FAO had previously reported to both sessions of the Intergovernmental Committee on the Convention on Biological Diversity, as well as to the First and Second Meetings of the CoP.

² Annex to decision II/18, para 6.3.2.

³ The *Report of the International Technical Conference* is document UNEP/CBD/COP/3/INF.18.

⁴ UNEP/CBD/COP/3/INF.17

⁵ UNEP/CBD/COP/3/INF.18, Annex 1.

- “(1) The implementation of FAO Conference Resolution 7/93 for the adaptation of the International Undertaking on Plant Genetic Resources, in harmony with the Convention on Biological Diversity;
- “(2) Convening the Fourth International Technical Conference on Plant Genetic Resources for Food and Agriculture through which two important elements of the Global System, the first State of the World report on Plant Genetic Resources for Food and Agriculture and the first Global Plan of Action for Plant Genetic Resources for Food and Agriculture, are being developed through a country-driven process.”

3. This document reports on progress under the Global System, in the context of Decision II/15. It gives particular attention to ongoing efforts to strengthen and adjust the Global System, in harmony with the Convention, as requested by Agenda 21, and in line with Resolution 3 of the Nairobi Final Act, in particular:

- the broadening of the Commission on Plant Genetic Resources to cover other sectors of agrobiodiversity;
- the negotiations for the revision of the International Undertaking on Plant Genetic Resources;
- the preparation of two key elements of the Global System, the first *Report on the State of the World's Plant Genetic Resources* and the *Global Plan of Action*, in the context of the International Technical Conference (this was the main area of concentration in 1995/96);
- the development of the World Information and Early Warning System; and
- the development of the International Network of *Ex Situ* Collections under the Auspices of FAO.

It also reports briefly on other components of the Global System.

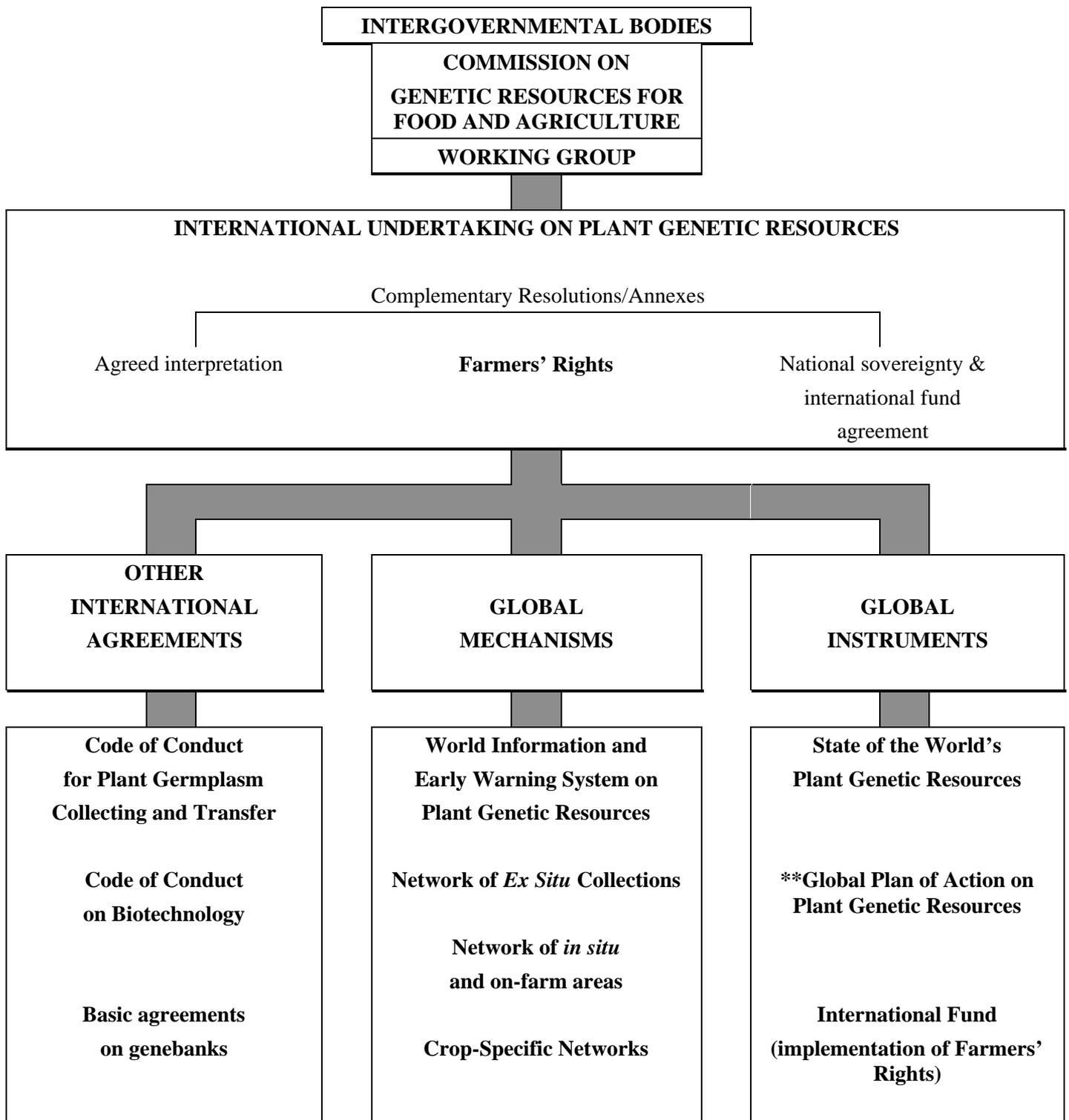
Background to the FAO Global System

4. In 1983, the FAO Conference established a permanent intergovernmental forum to deal with questions concerning plant genetic resources: the Commission on Plant Genetic Resources (now the Commission on Genetic Resources for Food and Agriculture). It also adopted a formal framework: the International Undertaking on Plant Genetic Resources. The Commission has since coordinated, overseen and monitored the development of a Global System for the Conservation and Utilization of Plant Genetic Resources for Food and Agriculture. *Figure 1* shows the components of the Global System, and the relationship between them.

5. 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 sharing the benefits and burdens. The System covers both the conservation (*ex situ* and *in situ*, including on-farm) and utilization of plant genetic resources for food and agriculture.

6. A total of 171 countries and the European Community (see *Appendix 1*) now participate in the Global System, by having joined the Commission (146 countries and the European Community), adhered to the Undertaking (111 countries), or contributed to the development of *the Global Plan of Action* that governments adopted formally at the International Technical Conference (159 countries).

Figure 1: THE GLOBAL SYSTEM FOR THE CONSERVATION AND UTILIZATION OF PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE*



Notes: * For illustrative purposes only;

** The *Global Plan of Action on Plant Genetic Resources* was adopted by the inter-governmental Fourth International Technical Conference on Plant Genetic Resources, held in Leipzig, Germany, 17 - 23 June 1996.

**Broadening the Commission:
the Commission on Genetic Resources for Food and Agriculture**

7. The Commission on Plant Genetic Resources was established on the basis of Resolution 9/83 of the 1983 FAO Conference. It is a permanent intergovernmental forum, where countries that are donors and users of germplasm, funds and technology can discuss, on an equal footing, matters related to plant genetic resources for food and agriculture, and monitor the implementation of the principles contained in the Undertaking. Through its debates, the Commission aims to reach international consensus in areas of global interest. Relevant technical assistance agencies, intergovernmental organizations, development banks, non-governmental organizations and private foundations also attend the sessions of the Commission and report to it on their programmes and activities on plant genetic resources.

8. The 1995 FAO Conference adopted Resolution 3/95 by consensus, broadening the Commission's mandate to cover all components of biodiversity of relevance to food and agriculture, and renaming it the "Commission on Genetic Resources for Food and Agriculture". FAO considered that this "would facilitate an integrated approach to agrobiodiversity and coordination with governments, which are increasingly dealing with policy issues regarding biological diversity in an integrated manner", and provide for effective cooperation with other organizations active in this field, in particular the Convention on Biological Diversity.

9. The Statutes for the broadened Commission⁶ provide for cooperation between FAO and other international governmental and non-governmental bodies, in particular the Conference of the Parties to the Convention on Biological Diversity.⁷ Article 2(v) provides explicitly that, subject to approval by the Governing Bodies of FAO, the Commission will "respond to requests from the Conference of the Parties to the Convention on Biological Diversity in the specific area of genetic resources of relevance to food and agriculture".

10. The Conference agreed that the broadening of the mandate should be implemented on a step-by-step basis, beginning with farm animal genetic resources, and progressively extending to other sectors of food and agriculture. As requested, this report deals only with the Global System on Plant Genetic Resources. At the request of the CBD Executive Secretary, FAO has also submitted an information document entitled *The Global Strategy for the Management of Farm Animal Genetic Resources - Links to the Convention on Biological Diversity*.⁸

**Revision of the International Undertaking on Plant Genetic Resources
for Food and Agriculture**

11. The International Undertaking on Plant Genetic Resources, a non-legally binding instrument, was adopted by Resolution 8/83 of the 1983 FAO Conference, and interpreted and complemented by three Conference Resolutions⁹ (4/89, 5/89 and 3/91, now annexed to the Undertaking) which

⁶ Adopted at the Hundred-and-tenth Session of the FAO Council in 1995.

⁷ Article 2 (iv).

⁸ SBSTTA, in Recommendation II/7, para. 29 noted the importance of the country-based FAO Global Strategy for the Management of Farm Animal Genetic Resources.

⁹ Eight countries expressed reservations to Resolution 8/83 (Canada, France, Germany, Japan, New Zealand, Switzerland, the United Kingdom and the United States of America). However, the complementary resolutions interpreting and developing the International Undertaking, were adopted unanimously.

introduced the concepts of Farmers' Rights,¹⁰ national sovereignty over plant genetic resources, and an international fund for the implementation of Farmers' Rights. The Undertaking 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". The implementation of the Undertaking is monitored by the Commission.

12. The FAO Conference, in November 1993, unanimously adopted Resolution 7/93, in response to the requests of Agenda 21 and the Nairobi Final Act, (see para. 2). This requested the FAO Director-General to provide for negotiations among governments, through the Commission on Genetic Resources for Food and Agriculture¹¹:

"for the adaptation of the International Undertaking on Plant Genetic Resources, in harmony with the Convention on Biological Diversity;¹²

"for consideration of the issue of access on mutually agreed terms to plant genetic resources, including *ex situ* collections not addressed by the Convention;¹³ and

"for the issue of the realization of Farmers' Rights".

The Resolution called for the negotiations to be carried out in close collaboration with the Governing Body of the Convention on Biological Diversity, and recognized the importance of mutual reporting in these matters between the Commission and the CoP.

13. Negotiations have now taken place during the Commission's First Extraordinary Session (7-11 November 1994) and part of its Sixth Regular session (19-30 June 1995), resulting in the preparation of a Third Negotiating Text. The progress to date was reported to the Second CoP, which declared its support for this process, through decision II/15 (see para. 2). The Commission's Second Extraordinary Session (22-27 April 1996, which met to prepare the Fourth International Technical Conference) briefly considered preparations for the further negotiations at the Third Extraordinary Session (December 9-13 1996). The Commission welcomed Decision II/15, and requested that the CBD Secretariat be invited to attend its sessions. The Seventh Regular Session of the Commission, in the first half of 1997, will also include an agenda item on the negotiations.

14. The Commission felt that a great deal had been achieved in the preparation of the Third Negotiating Draft of the Undertaking, which integrates the views and proposals of all members of the Commission. However, it recognized that there might be value in working on a simplified draft text, concentrating on articles 3 (Scope), 11 (Availability of Plant Genetic Resources) and 12 (Farmers' Rights). It decided that its Working Group should meet immediately before the Third Extraordinary Session to prepare a text, which could, without in any way replacing the third negotiating draft, provide more focus for further negotiations, should the Commission so decide.

15. The *Leipzig Declaration*, adopted at the Fourth International Technical Conference emphasized the importance of completing the revision of the International Undertaking and the adjustment of the Global System, in line with the Convention on Biological Diversity. In October 1996, the Hundred-and-eleventh Session of the FAO Council requested the Third Extraordinary Session of the Commission to concentrate on the revision of the Undertaking.

¹⁰ "Farmers' Rights mean rights arising from the past, present and future contributions of farmers in conserving, improving and making available plant genetic resources, particularly those in the centres of origin/diversity." These rights are *inter alia* to "allow farmers, their communities, and countries in all regions, to participate fully in the benefits derived, at present and in the future, from the improved use of plant genetic resources."

¹¹ Then the Commission on Plant Genetic Resources.

¹² While the Convention on Biological Diversity covers all kinds of biological diversity, the scope of the Undertaking is limited to plant genetic resources for food and agriculture.

¹³ It should be noted that this formulation, adopted after careful negotiations, although limited to plant genetic resources for food and agriculture, is not limited only to *ex situ* collections not addressed by the Convention.

**The first *Report on the State of the World's Plant Genetic Resources for Food and Agriculture*
and the *Global Plan of Action***

16. In 1991, the Commission agreed on the need to develop two important elements of the Global System: a periodical *Report on the State of the World's Plant Genetic Resources*, to assist the Commission in its role of monitoring the international situation of plant genetic resources for food and agriculture; and a rolling *Global Plan of Action*, to facilitate the Commission's coordinating functions.

17. The Fourth International Technical Conference on Plant Genetic Resources met in Leipzig, Germany, from 17 to 23 June 1996, and was attended by 150 countries and 54 inter-governmental and non-governmental organizations.¹⁴ It welcomed the *Report on the State of the World's Plant Genetic Resources*, as the first comprehensive world-wide assessment of the state of plant genetic resources conservation and use. It adopted the *Leipzig Declaration* and the first *Global Plan of Action*. These two documents are key elements of the Global System, and had been requested by Agenda 21 and the Nairobi Final Act. As provided for in CoP Decision II/16, the President of the Second CoP delivered a statement to the Conference. The Executive Secretary of the CBD also attended the Conference.

18. FAO has reported regularly to the CBD on the participatory, country-driven process through which the Conference was prepared, under the guidance of the Commission on Genetic Resources for Food and Agriculture. By Decision II/15, the CoP declared its support for this process, which Decision II/16 described as "exemplary" and "an innovative model". Country Reports were prepared by 158 governments, assessing the status of their plant genetic resources and their capacity to conserve and utilize them: *the Report on the State of the World's Plant Genetic Resources* is largely based on this information. At twelve regional and sub-regional meetings, governments discussed regional problems and opportunities, and made recommendations for the *Global Plan of Action*, which helped catalyze the formation and strengthening of national programmes and regional networks and scientific cooperation. A number of governments and institutions, particularly the International Plant Genetic Resources Institute (IPGRI), alone or in association with FAO, organized technical and scientific symposia in support of the preparatory process, including three on forestry genetic resources. FAO also established its first interactive, electronic conferences, through which hundreds of scientists, non-governmental organizations and others made inputs. An Internet site provided on-line access to key documents and Country Reports.

19. The *Report on the State of the World's Plant Genetic Resources* assesses the state of plant genetic diversity, and capacities at local, national, regional and global levels for *in situ* management, *ex situ* conservation, and utilization. The *Report* also assesses the state of the art in plant genetic resources conservation and utilization. It identifies current gaps and needs, and the priorities which are addressed in the *Global Plan of Action*. The *Report* will be periodically updated.

20. The *Global Plan of Action* is the first time the international community has addressed the conservation and utilization of Plant Genetic Resources for Food and Agriculture in a comprehensive manner. The Plan comprises twenty priority activities, covering *in situ* and *ex situ* conservation, plant genetic resources utilization, and institutions and capacity-building. Each activity contains a brief assessment of the current situation in that field, intermediate and long-term objectives, and specific agreed recommendations for actions in terms of policy and strategy, capacity-building, research and technology, and administration and coordination. The rolling *Plan* will be reviewed and updated after four years.

21. The *Leipzig Declaration* commits governments to take the necessary steps to implement the *Global Plan of Action*. The International Technical Conference stressed the need to enlist the widest

¹⁴ The Report of the International Technical Conference is document UNEP/CBD/COP/3/INF.17.

possible participation in its implementation and requested that the outcome of the Conference be reported to a wide range of fora dealing with food and agriculture and biodiversity, including the CoP, inviting their member constituencies to promote and take part as appropriate in the implementation of the *Plan*. In considering the outcome of Leipzig, SBSTTA recommended that the CoP encourage Parties to the Convention to actively implement the *Global Plan of Action*.¹⁵

22. The International Technical Conference reaffirmed that funds should be made available to finance the implementation of the Global Plan of Action, by developing countries and countries with economies in transition; and committed themselves to its implementation. At the request of the International Technical Conference, FAO is inviting financial and funding organizations to examine ways and means of supporting the implementation of the *Plan*. FAO itself is examining ways in which its technical programmes can support implementation of the *Plan*. The FAO Council, in endorsing the outcome of the Leipzig Conference, in October 1996,¹⁶ has invited national, regional and international funding organizations to consider the priorities of the *Global Plan of Action* as policy guidance for their funding programme. It might also be noted that SBSTTA recommended that the CoP draw the attention of international Funding Agencies, particularly the GEF, to the urgent need to support the conservation and sustainable use of diversity important to agriculture.¹⁷

23. The Conference agreed that the *Global Plan of Action* should be implemented as an integral part of the Global System for the Conservation and Utilization of Plant Genetic Resources for Food and Agriculture and in harmony with the Convention on Biological Diversity, and that governments would monitor and guide overall progress, through the Commission on Genetic Resources for Food and Agriculture.

24. As the Conference requested, its Chairman is presenting the *Leipzig Declaration* and the outcome of the International Technical Conference to the World Food Summit, and to this meeting of the CoP.

The World Information and Early Warning System

25. The World Information and Early Warning System (WIEWS) on Plant Genetic Resources for Food and Agriculture was established in conformity with Articles 7.1 (e) and (f) of the International Undertaking. The WIEWS collects, disseminates and facilitates the exchange of data and information on plant genetic resources and related technologies. It is also intended to alert the international community to hazards threatening the loss of *ex situ* and *in situ* plant genetic resources for food and agriculture. Agenda 21 requested FAO to accelerate the development of the WIEWS. The Second CoP, by Decision II/16, welcomed FAO's offer to link its information mechanisms to the Convention's Clearing House Mechanism.

26. The data maintained in the WIEWS played an essential role in the preparation of the first *Report on the State of the World's Plant Genetic Resources*. This accelerated its development: the WIEWS is being expanded and updated with information from the 158 Country Reports prepared for the International Technical Conference.¹⁸ Internet technology for searching and reporting data from

¹⁵ Recommendation II/7, para. 29.

¹⁶ Resolution CL 111/1.

¹⁷ Recommendation II/7, para. 36.

¹⁸ The WIEWS comprises a number of data-bases. The *ex situ* data-base currently contains data on over 5.2 million plant genetic accessions, in some 1,390 *ex situ* collections around the world. The country profile database contains information on the structure and activities of national plant genetic resource programmes in over 190 countries. The seed sources database contains the addresses of about 8000 seed-supplying institutions around the world, as well as data on activities and crop coverage. The crop variety database contains information on commercial crop varieties.

the WIEWS is being implemented, in order to increase accessibility. The WIEWS will be improved in line with the recommendations of the *Global Plan of Action*, following a review of its efficiency, purpose and value. A Technical Consultation involving users of the WIEWS from all regions was organized in Radzikow, Poland, in September 1996, to identify more precisely user needs. A Global Information System on Forest Genetic Resources is currently being developed by FAO: it is planned that it will eventually be linked to the WIEWS.

**The International Network of *Ex Situ* Collections under the Auspices of FAO:
international agreements on genebanks¹⁹**

27. An international network of base collections in genebanks under the auspices of FAO has been established in line with Article 7.1(a) of the International Undertaking. The Commission called for the development of the network in 1989, because of the uncertainty, at that time, of the legal situation of *ex situ* germplasm collected in genebanks, and of the lack of appropriate agreements to ensure its safe conservation. Because 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, the status of these collections was identified as an outstanding matter by Resolution 3 of the Nairobi Conference for the Adoption of the Agreed Text of the Convention, which recognized the need to resolve this issue within the context of the FAO Global System.

28. Twelve Centres of the Consultative Group on International Agricultural Research signed agreements with FAO in 1994, placing most of their collections (some 500,000 accessions) in the International Network. Through these agreements, the Centres accept a number of responsibilities and obligations, 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”. Since the last CoP, the CGIAR’s System-Wide Programme on Genetic Resources, with FAO’s support, has undertaken a review of the Centres’ genebank operations, which showed that the operations of most of the genebanks are satisfactory and that they are generally well managed.

29. The Sixth Session of the Commission (19-30 June 1995) considered revised model agreements for adherence to the Network, harmonized with the provisions of the CBD, and agreed that negotiations with the 32 countries that had expressed their willingness to join the Network should continue, using the revised agreements as appropriate. It noted that the final form of such agreements would depend upon the outcome of the negotiations for the revision of the International Undertaking.

30. During the preparatory process of the International Technical Conference, several more expressed interest in joining the International Network. A number of recommendations regarding the further development of the Network were made: in particular, in the inter-governmental sub-regional preparatory meetings of the International Technical Conference for Europe and North America, countries agreed that institutions which had, prior to the entry into force of the Convention, signed agreements with the International Board for Plant Genetic Resources (IBPGR, now the International Plant Genetic Resources Institute, IPGRI) making commitments for the availability and long-term conservation of their collections, within the former IBPGR Register of Base Collections, should now place those collections in the International Network. These collections, with those of the CGIAR account for about a quarter of the world’s collections of plant genetic resources for food and agriculture (and undoubtedly a much higher proportion of the world’s unique accessions).

The database of databases provides information on individual non-FAO databases and a guide of how to obtain information from them.

¹⁹ Section V of FAO’s Report to the Second CoP described in detail the Network.

31. The first *Report on the State of the World's Plant Genetic Resources*, provides the most up-to-date and comprehensive survey of *ex situ* collections throughout the world. In its report to the last CoP, FAO outlined the preliminary results of a survey of *ex situ* plant genetic resources in botanical gardens, which focused on those of interest for food and agriculture; the completed survey can be made available to the present CoP.²⁰

32. Complementary to these activities, the Commission in 1994 agreed upon a set of genebank standards, jointly prepared by FAO and IPGRI. These have now been published and are widely used. At the request of the Commission, FAO and IPGRI are now also preparing standards for both *in vitro* collections and field genebanks, as well as guidelines for the regeneration of stored material.

Developments related to other elements of the Global System

33. The 1991 FAO Conference unanimously adopted Resolution 3/91 which agreed “that Farmers’ Rights will be implemented through an **international fund on plant genetic resources**, which will support plant genetic conservation and utilization programmes”. The Resolution also agreed that the “resources for the international fund as well as for other funding mechanisms should be substantial, sustainable and based on the principles of equity and transparency” and “that through the Commission on Plant Genetic Resources, the donors of genetic resources, funds and technology will determine and oversee the policies, programmes and priorities of the fund and other funding mechanisms, with the advice of the appropriate bodies”. The international fund is expected to become a key mechanism for sharing benefits and a critical element in ensuring the equitableness of the Global System. The fund has not yet been established, and matters related to the legal status, policies and priorities are now under discussion, as part of the current negotiations for the revision of the International Undertaking. Further progress is therefore dependent on the success of the negotiations among countries for the revision of the International Undertaking, which includes the realization of Farmers’ Rights.

34. The **International Code of Conduct for Plant Germplasm Collecting and Transfer**—called for by the Commission in 1989, then negotiated by countries in the Commission, and adopted by the FAO Conference in 1993, as Resolution 8/93—provides a guide which governments may use until they develop their own national regulations. During the preparatory process of the Fourth International Technical Conference, many countries reported that they are now using the Code of Conduct in the preparation of national regulations for germplasm collecting and transfer. The Code is compatible with both the Convention on Biological Diversity and the International Undertaking. It was adopted as a voluntary agreement, on the understanding that the Commission might revise it, when appropriate, to reflect new developments and circumstances. The Commission’s Sixth Session recalled that the “appropriate national authorities and the Commission on Plant Genetic Resources should periodically review the relevance and effectiveness of the Code” and requested the Secretariat to prepare questionnaires to facilitate its monitoring role, and to allow any necessary development, modification and updating of the Code.

35. A related activity is the joint publication by FAO and IPGRI, since 1989, as part of their respective phytosanitary activities, of *Technical Guidelines for the Safe Movement of Plant Germplasm*. Guidelines have now been published for seventeen crops: cocoa, edible aroids, sweet potato, yam, legumes, cassava, citrus, grapevine, vanilla, coconut, sugarcane, small fruits, small grain temperate cereals, stone fruits, *Eucalyptus* spp., *Pinus* spp (forthcoming), and *Musa* spp.

36. A draft **Code of Conduct for Biotechnology**, as it affects the conservation and use of plant genetic resources for food and agriculture, was prepared at the request of the Commission and

²⁰ E. Hernández Bermejo, *Información sobre las colecciones ex situ conservadas en jardines botánicos*, CGRFA Background Study Paper No. 5, FAO, 1996 (in Spanish only).

considered at its Fifth Session in 1993. The draft Code includes provisions to maximize the positive effects of biotechnology and minimize potentially negative effects, as well as to promote access to relevant agro-biotechnologies and to the plant genetic resources for food and agriculture to which they are applied. FAO transmitted the biosafety component of the draft Code to the CBD Secretariat as an input to the work of the CBD in this field, in line with the recommendations of the Commission which were endorsed by the FAO Conference. FAO participated in the First Open-Ended *Ad Hoc* Working Group on Biosafety, held in Aarhus, Denmark in July, 1996, and presented outline information on the draft Code and other FAO activities relevant to the issue of biosafety.²¹ The Sixth Session of the Commission agreed to postpone further development of other elements of the draft Code until after the negotiations for the revision of the International Undertaking were over.

37. In recent years, the need for integrated *in situ* conservation strategies based on the complementarity of *in situ* and *ex situ* approaches, has been recognized. The Commission has accordingly called for the establishment of **networks of *in situ* conservation areas**, which would include “on-farm” conservation of crops and *in situ* conservation of wild relatives of cultivated plants. The role of *in situ* conservation for all plant genetic resources for food and agriculture was also emphasized at UNCED, in Chapter 14 of Agenda 21. The *Global Plan of Action* contains a set of specific priority activities for *in situ* conservation, and proposes an increased allocation of resources to *in situ* conservation, especially in developing countries. These now provide an agreed framework for *in situ* conservation of crop genetic resources. As recommended by the Sixth Session of the Commission, the 1997 FAO World-wide Technical Consultation on Protected Areas is planned to include a review of the role of protected areas in the *in situ* conservation of the full range of plant and farm animal genetic resources.

38. A number of **global and regional crop-related networks** covering a large variety of cultivated species are being established, in close collaboration with relevant scientific organizations, to promote a coordinated approach to identifying, conserving and evaluating the genetic resources of selected crop species, with the aim of their utilization for the improvement of cultivars, and adaptation to farmers’ needs. The Sixth Session of the Commission recognized that the crop-related networks were a useful approach to integrating activities on plant genetic resources within the Global System and strengthening practical linkages between the conservation and utilization of crop genetic resources at field level. The *Global Plan of Action* made recommendations for the further development and restructuring of these activities.

²¹ These include:

- the FAO Code of Conduct for Responsible Fisheries, adopted by the 1995 FAO Conference (Resolution 4/95) and associated draft Codes of Practice/Guidelines on the use of alien species and genetically modified organisms in fisheries;
- the International Plant Protection Convention and associated International Standards for Phytosanitary Measures, adopted by the 1995 FAO Conference which consist of: Guidelines for Pest Risk Analysis, a Code of Conduct for the Import and Release of Exotic Biological Control Agents, and Requirements for the Establishment of Pest Free Areas;
- the International Code of Conduct on the Distribution and Use of Pesticides, which includes a “Prior Informed Consent” programme; and
- *Codex Alimentaris*, which includes health and food quality standards and protection.

Appendix 1

COUNTRIES' PARTICIPATION IN THE DEVELOPMENT OF MAJOR COMPONENTS
OF THE GLOBAL SYSTEM FOR THE CONSERVATION AND UTILIZATION OF
PLANT GENETIC RESOURCES (September 1996)

AFRICA	ASIA & THE SOUTH WEST PACIFIC	EUROPE	LATIN AMERICA AND THE CARIBBEAN
Algeria 1/2	Australia 1/2/3	Albania 1/3	Antigua and Barbuda 1/2/3
Angola 1/2/3	Bangladesh 1/2/3/4	Armenia 3	Argentina 1/2/3/4
Benin 1/2/3	Bhutan 3	Austria 1/2/3	Bahamas 1/2/3
Botswana 1/3	Cambodia 3	Belarus 3	Barbados 1/2/3
Burkina Faso 1/2/3	China 1/3/4	Belgium 1/2/3	Belize 1/2
Burundi 1/3	Cook Islands 3	Bosnia and Herzegovina 1	Bolivia 1/2/3
Cameroon 1/2/3	Democratic People's Republic of Korea 1/2/3	Bulgaria 1/2/3	Brazil 1/3/4
Cape Verde 1/2/3	Fiji 2	Croatia 1/3	Chile 1/2/3/4
Central African Republic 1/2/3	India 1/2/3/4	Cyprus 1/2/3	Colombia 1/2/3/4
Chad 1/2	Indonesia 1/3	Czech Republic 1/2/3/4	Costa Rica 1/2/3/4
Congo 1/2/3	Japan 1/3	Denmark 1/2/3/4	Cuba 1/2/3
Côte d'Ivoire 1/2/3	Korea, Republic of 1/2/3	Estonia 1/3	Dominica 1/2/3
Equatorial Guinea 1/2/3	Malaysia 1/3	European Community 1	Dominican Republic 1/2/3
Eritrea 1/3	Maldives 1/3	Finland 1/2/3/4	Ecuador 1/2/3/4
Ethiopia 1/2/3/4	Mongolia 1/3	France 1/2/3/4	El Salvador 1/2/3
Gabon 1/2/3	Myanmar 1/3	Georgia 1	Grenada 1/2/3
Gambia 1/3	Nepal 1/2/3	Germany 1/2/3/4	Guatemala 1/3
Ghana 1/2/3	Niue 3	Greece 1/2/3	Guyana 1/3
Guinea 1/2/3	New Zealand 1/2/3	Hungary 1/2/3	Haiti 1/2/3
Guinea-Bissau 1	Pakistan 1/3/4	Iceland 1/2/3	Honduras 1/2/3
Kenya 1/2/3/4	Papua New Guinea 1/2/3	Ireland 1/2/3	Jamaica 1/2/3
Lesotho 1/3	Philippines 1/2/3/4	Israel 1/2/3	Mexico 1/2/3/4
Liberia 1/2	Samoa 1/2/3	Italy 1/2/3/4	Nicaragua 1/2/3
Madagascar 1/2/3/4	Solomon Islands 1/2/3	Latvia 1/3	Panama 1/2/3
Malawi 1/2/3	Sri Lanka 1/2/3	Liechtenstein 2	Paraguay 1/2/3
Mali 1/2/3	Thailand 1/3	Lithuania 1/3	Peru 1/2/3
Mauritania 1/2/3	Tonga 1/2/3	Malta 1/3	Saint Christopher and Nevis 1/3
Mauritius 1/2/3	Vanuatu 1	Moldova 3	Saint Lucia 1/3
Morocco 1/2/3/4	Vietnam 1/3	Netherlands 1/2/3	Saint Vincent and the Grenadines 1/3
Mozambique 2/3		Norway 1/2/3/4	Suriname 1/3
Namibia 3	NEAR EAST	Poland 1/2/3	Trinidad and Tobago 1/2/3
Niger 1/2/3	Afghanistan 1	Portugal 1/2/3	Uruguay 1/3/4
Nigeria 3	Azerbaijan 1/3	Romania 1/2/3	Venezuela 1/3
Rwanda 1/2/3	Bahrain 2	Russia 2/3	
Senegal 1/2/3/4	Egypt 1/2/3	Slovak Republic 1/3	NORTH AMERICA
Seychelles 3	Iran 1/2/3/4	Slovenia 3	
Sierra Leone 1/2/3	Iraq 1/2/3/4	Spain 1/2/3/4	Canada 1/3/4
South Africa 1/2/3	Jordan 1/3	Sweden 1/2/3/4	United States of America 1/3/4
Sudan 1/2/3	Kazakhstan 3	Switzerland 1/2/3/4	
Swaziland 3	Kuwait 2/3	Turkey 1/2/3/4	
Tanzania 1/2/3	Lebanon 1/2/3	Ukraine 3	
Togo 1/2/3/4	Libya 1/2/3	United Kingdom 1/2/3/4	
Uganda 1/3	Oman 2/3	Yugoslavia 1/2/3	
Zaire 1/3	Qatar 3		
Zambia 1/2/3	Saudi Arabia 3		
Zimbabwe 1/2/3	Syria 1/2/3/4		
	Tunisia 1/2/3/4		
	Turkmenistan 3/4		
	Uzbekistan 3/4		
	Yemen 1/2/3/4		

* 171 countries and the European Community are participating actively in the development of major components of the Global System. Other elements of the System, such as the Code of Conduct for Plant Germplasm Collecting and Transfer and the World Information and Early Warning System, which do not have individual memberships, are not listed here.

1/ Membership of the Commission on Genetic Resources for Food and Agriculture (146 countries and the European Community).

2/ Adherence to the International Undertaking on Plant Genetic Resources (111 countries).

3/ Countries that have actively contributed to the preparation of the *Global Plan of Action* and the *Report on the State of the World's Plant Genetic Resources*, by presenting national reports and participating in the intergovernmental meetings that culminated in formal adoption, by governments in the Fourth International Technical Conference of the *Global Plan of Action* (159 countries).

4/ Countries that have expressed the wish to put national *ex situ* collections under the auspices of FAO, and/or to store international collections in their genebanks (40 countries).