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منظمة الأغذية  
والزراعة  
للأمم المتحدة

联合国  
粮食及  
农业组织

Food  
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Organización  
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**TWENTY-SIXTH FAO REGIONAL CONFERENCE  
FOR LATIN AMERICA AND THE CARIBBEAN**

*Merida, Mexico, 10 to 14 April 2000*

**PLANT GENETIC RESOURCES, INTERNATIONAL  
COMMITMENT AND LEIPZIG PLAN OF ACTION**

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## INTRODUCTION

1. Latin America and the Caribbean have a diverse eco-geographical range and is endowed with a very high diversity of species. This biodiversity has been shaped not only by the geographic and environmental variability, but also by the equally diverse cultures. Many of these groups of people rely on a complex array of food crops endemic to the Region. For the purpose of plant genetic resource management, this large heterogeneous zone is divided into the:

- Caribbean Area
- Meso-American Zone
- Andean Zone
- Southern Cone
- Amazonian Basin

2. Each of these zones participate in networks conducting research, consolidating national programmes and developing strategies leading towards proper conservation and sustainable use of these resources.

3. In addition to the plant genetic resources for food and agriculture for which the centre of origin is found in the region, Latin America and the Caribbean have also benefited from the exchange of genetic material within and between regions that characterises agriculture. Because of such exchanges, no country or region can be self-sufficient in its needs for genetic diversity; according to recent studies, the average crop genetic resources dependency (crop production based on exotic germplasm) among regions of the world is more than 50%, and for some regions it may go up to 100% for the most important crops. Latin American and Caribbean countries belong to the centres of origin for many important crops, including maize, *Phaseolus* (beans), potato, sweet potato, tomato, cocoa, cassava, groundnut, pineapple and paprika. Nonetheless, they rely heavily on food crops from other centres of origin, including wheat, sugar, rice, soybean, barley, plantain and banana. Many countries also rely heavily on crops from within the overall region, but for which they do not form part of the centre of origin. In the case of Latin America and the Caribbean, an FAO study<sup>1</sup> estimates that countries' interdependence in the area of plant genetic resources, in terms of calorie supply to the national food budget from plants that have their origin in other regions, ranges between a minimum of 37-49% and a maximum of 90-100%.

4. From the early 1960s, FAO has recognised that the loss of genetic resources for food and agriculture is a major threat to agriculture and food production. FAO has since then promoted technical measures for the conservation and sustainable utilisation of these resources. In 1979, the FAO Conference was also the first forum of the UN-system to hold policy discussions on socio-economic, legal and ethical questions related to the conservation, ownership and availability of genetic resources for food and agriculture.

5. FAO established its inter-governmental Commission on Genetic Resources for Food and Agriculture<sup>2</sup> in 1983,<sup>3</sup> as the first permanent intergovernmental forum to debate and seek

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<sup>1</sup> Ximena Flores Palacios: "Contribution to the Estimation of Countries' Interdependence in the Area of Plant Genetic Resources"; Background Study Paper No. 7 Rev. 1; FAO Commission on Genetic Resources for Food and Agriculture.

<sup>2</sup> Currently, 160 countries and the European Community are members of the CGRFA. Information on the Commission and its membership is on the Internet at <http://www.fao.org/ag/cgrfa>.

consensus on these crucial matters. The Commission has since its foundation been a pioneer in promoting international agreements and codes of conduct related to biodiversity, biosafety, biotechnologies, and bioethics relevant to food and agriculture, including the concept of Farmers' Rights. The Commission has established and monitors the FAO Global System for the Conservation and Sustainable Utilisation of Plant Genetic Resources for Food and Agriculture, as an internationally agreed framework for such activities. The Global System includes international agreements and instruments, in particular, the International Undertaking on Plant Genetic Resources, currently being revised through inter-governmental negotiations, the World Information and Early Warning System, the International Network of *Ex Situ* collections under the Auspices of FAO (into which the International Agricultural Research Centres of the Consultative Group on International Agricultural Research have brought their *ex situ* collections, thereby placing them under international auspices), and the International Code of Conduct on Germplasm Collecting and Transfer. The Commission is still negotiating a Code of Conduct on Biotechnology.

6. Other key elements of the Global System are the *Global Plan of Action on Plant Genetic Resources for Food and Agriculture* (GPA) and the *Report on the State of the World's Plant Genetic Resources*, on which it is based. This paper describes the implementation of the Plan in the Region.

7. The *Plan* identified crop-related networks and regional networks on plant genetic resources as a priority activity. During 1997 and 1998, FAO supported and assisted governments to establish various global inter-regional and regional crop-related networks, in co-operation with national scientific organisations and FAO Regional Offices, which play an important role in promoting the conservation and utilisation of plant genetic resources and the appropriate use of plant biotechnology for food and agriculture. The paper also discusses the role of the networks and their evolution through a Regional Integration Mechanism as an effective and coherent means for the regional implementation of the *Plan*.

## **THE GLOBAL PLAN OF ACTION AND THE INTERNATIONAL UNDERTAKING ON PLANT GENETIC RESOURCES**

8. The International Undertaking was adopted by the 1983 FAO Conference, as the first comprehensive international agreement in the field of plant genetic resources for food and agriculture. It sought 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".<sup>4</sup>

9. In 1993, the CGRFA noted that the technical and financial needs to ensure conservation and to promote the sustainable use of plant genetic resources for food and agriculture needed to be determined and quantified, and decided that this should be done through the preparation of a rolling *Global Plan of Action on Plant Genetic Resources for Food and Agriculture*. FAO therefore convened the Leipzig International Technical Conference on Plant Genetic Resources, in June 1996, where 150 countries adopted the *Plan*, as well as the Leipzig Declaration, in which they undertook to honour their commitments and take the steps necessary to implement the *Plan*.

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<sup>3</sup> Until 1995, the FAO Commission on Plant Genetic Resources.

<sup>4</sup> At present, 113 countries have adhered to the International Undertaking.

10. In adopting the Agreed Text of the Convention on Biological Diversity in 1992, countries also adopted Resolution 3 of the Nairobi Final Act, which recognised that access to *ex situ* collections not acquired in accordance with the Convention and Farmers' Rights, were outstanding matters which the Convention had not addressed, and that solutions should be sought within FAO's forum. The 1993 FAO Conference accordingly requested the Director-General to provide a forum for negotiation among governments for the adaptation of the International Undertaking on Plant Genetic Resources, in harmony with the CBD;<sup>5</sup> and consideration of the issue of access on mutually agreed terms to plant genetic resources, including *ex situ* collections not addressed by the CBD,<sup>6</sup> and the issue of the realisation of Farmers' Rights.

11. Progress in the negotiations has been regularly reported to the Conference of the Parties to the CBD, which has repeatedly stressed its support. In Decision II/15, the 1995 Conference of the Parties recognised the special nature of agricultural biodiversity, its distinctive features and problems needing distinctive solutions, and declared its support for the development of the *Global Plan of Action*, through the Leipzig International Technical Conference, and for the revision of the Undertaking. In Decision III/11, in 1996, the Conference of the Parties stated that it was willing, should the FAO Conference so wish, for the revised International Undertaking to take the form of a protocol to the Convention.

12. The Thirtieth Session of the FAO Conference in November 1999 reviewed progress in the negotiations. It "considered that the successful completion of the negotiations for the revision of the International Undertaking, as an international instrument for the conservation and sustainable utilisation of plant genetic resources for food and agriculture, and for access to these resources, was essential in ensuring global food security and sustainable agriculture for present and future generations". It "considered that the Undertaking was at the meeting point between agriculture, the environment and commerce, and *agreed* that there should be consistency and synergy in the agreements being developed in these different sectors. It felt that early success in these negotiations should allow the agricultural sector to shape solutions that took its specific needs into account".

13. The Conference "*confirmed* that the negotiations on the revision of the International Undertaking would proceed on the basis that the Undertaking would take the form of a legally-binding instrument, closely linked to FAO and the Convention on Biological Diversity. It *recognised* that the full implementation of the *Global Plan of Action for the Conservation and Sustainable Utilisation of Plant Genetic Resources for Food and Agriculture* would be greatly facilitated by the funding strategy of the International Undertaking".

14. The negotiating text of the International Undertaking contains a specific article on the *Global Plan of Action*. The draft article on financial provisions also states that priority will be given to the implementation of the rolling *Plan*, in particular in support of Farmers' Rights in developing countries.

15. The Conference requested that the text of the revised International Undertaking be finalised for submission to the Hundred and Nineteenth Session of the FAO Council in November 2000. It also stressed the importance for countries that are developing relevant legislation to do so

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<sup>5</sup> While the Convention on Biological Diversity covers all types of biological diversity, the scope of the Undertaking is limited to plant genetic resources for food and agriculture.

<sup>6</sup> This formula, 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.

in a way that would enable them to take into account and allow for the elements of this new international agreement.

## **THE GLOBAL PLAN OF ACTION AS A CATALYST ACTION MECHANISM**

16. The *Global Plan of Action for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture* was negotiated through the Commission on Genetic Resources for Food and Agriculture and adopted at the International Technical Conference on Plant Genetic Resources (Leipzig, Germany, June 1996) by 150 countries, who committed themselves to taking the necessary steps to implement it in accordance with their national capacities. The Conference noted that “follow-up processes called for action at local, national, regional and international levels and should involve the national governments, local and regional authorities, regional and international organisations, both inter-governmental and non-governmental, the scientific community, the private sector, local communities and farmers and other agricultural producers and their associations”.

17. The *Plan* has been subsequently endorsed, welcomed or supported by the FAO Council (1996) and Conference (1997), the Conference of the Parties (CoP) to the Convention on Biological Diversity (CBD)(1996), and the World Food Summit (1996). Both the World Food Summit and the CoP/CBD have urged countries to implement the *Plan*, according to their national capacities. Many non-governmental organisations, including private sector organisations, have also supported the *Plan*. It can therefore be regarded as the main normative framework for activities related to the conservation and sustainable use of plant genetic resources for food and agriculture, at national and international levels, and a strategy to guide international co-operation on plant genetic resources for food and agriculture, in coming years.

18. The *Global Plan of Action* is important as a framework and catalyst for action. It provides a coherent framework for activities in the field of *in situ* and *ex situ* conservation, in the sustainable utilisation of plant genetic resources, as well as in institution and capacity-building. It will contribute to creating synergies among on-going activities, as well as more efficient use of available resources. Many organisations have adopted the *Plan*, as a basis for their planning and priority-setting, and aligned their work with its priorities and activities. The Consultative Group on International Agricultural Research (CGIAR) acknowledged “the significant and valuable role the *Global Plan of Action* will play, both now and in the future, in giving guidance and direction to the sustainable use of plant genetic resources and to the work of the individual Centres”, and stated that “the CGIAR willingly accepts that implementation of the *Plan* will necessitate some changes, adjustments and improvements in existing programmes”. Several CGIAR Centres have developed their strategies or medium-term plans in the light of the *Plan*.

19. The *Plan* by itself, and its previous country-driven preparatory process also promoted the establishment of national programmes and regional networks supporting the view of an increased awareness of the importance of farmers and farmer communities in managing plant genetic resources for food and agriculture and to led to a number of on-farm conservation and improvement initiatives.

20. The overall progress in the implementation of the *Global Plan of Action* and of the related follow-up processes is being monitored and guided by FAO Members, through the Commission on Genetic Resources for Food and Agriculture. Presently, most countries of the Region are now taking measures to implement the twenty priority activities of the *Global Plan of Action* according to their capacities.

21. Current activities to implement the *Plan* are funded by a variety of sources: domestic, bilateral and multilateral. Although a number of donor countries announced that they were taking measures, through bilateral and other channels, to support international and regional implementation of some of the GPA priority activities there are still gaps, overlaps, inefficiencies and unnecessary redundancies in the activities financed. Reassessment of programmes will help to rationalise overall resource-use and the monitoring process.

22. To further publicise the *Plan*, FAO has put the *Plan* itself, the 158 Country Reports and 15 regional reports, and the *Report on the State of the World's Plant Genetic Resources for Food and Agriculture*, on the internet<sup>7</sup> and made the same information available on CD-ROM. As the Commission requested, the comprehensive *State of the World's Plant Genetic Resources* has been published in English, and resources are being sought to publish it in all the Organisation's languages. Preparations for a second *Report on the State of the World's Plant Genetic Resources for Food and Agriculture*, will start as soon as the revision of the International Undertaking on Plant Genetic Resources is concluded, and the rolling *Plan* will be revised accordingly.

## **PROGRESS IN THE REGION ON IMPLEMENTATION OF PRIORITY ACTIVITIES FOR THE *GLOBAL PLAN OF ACTION***

### ***IN SITU* CONSERVATION AND IMPROVEMENT<sup>8</sup>**

23. Latin America and the Caribbean Region are well endowed with endemic and autochthonous germplasm of horticultural staple and industrial crops. Native germplasm of fruits, vegetables and other crops in the Region are important genetic resources with great potential for further development. It also has an integrated system of sub-regional indigenous networks, which is consolidating its efforts to develop new innovations to promote the conservation and sustainable use of this plant genetic resources for food and agriculture.

24. Much of this genetic resource, while still in its *in situ* state, requires much attention for its proper inventory and documentation. In most national programmes this remains an important first step to be undertaken in order to establish a base-line data, facilitate the development of policies and appropriate mechanism for monitoring, improved management and sustainable use.

25. It is in this form of conservation with which most indigenous knowledge about use and cultivation practices is also associated. *In situ* conservation allows for the continued evolutionary process of that shape the genetic diversity and adaptability of plant populations to continue to operate. Furthermore, in some cases, this form of conservation has a direct socio-economic relevance to communities because of the opportunities it provides for crop improvement, food security and community nutrition.

26. The need to develop a number of approaches for *in situ* conservation for PGRFA has been recognised by countries of the Region and the approaches to address it includes the following:

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<sup>7</sup> At <http://www.icppgr.fao.org>.

<sup>8</sup> *In situ* conservation is defined by FAO in "The state of the world's plant genetic resources for food and agriculture", p. 51.

- Specific conservation measures for crop wild relatives and wild food plants particularly in protected areas
- Conservation and sustainable utilisation of landraces or traditional crop varieties on-farm and in home gardens.

27. There is a disparity in the status of *in situ* conservation in the Region. Some countries have initiated the process of project development for *in situ* conservation while others have reached the level of developed legislation and national mechanisms, such as Protected Areas Conservation Thrusts. Such mechanisms are involved in the implementation of surveys, inventories, active monitoring and provide funding for conservation and sustainable utilisation in protected areas. Such mechanisms are also mandated to encourage the participation of all concerned stakeholders, with special focus on local communities.

28. Several other initiatives are also in place to encourage further development of *in situ* conservation. This includes on-farm conservation and home gardens. Depending on the national action plan and development of the national biodiversity strategy, some countries in the Region are already benefiting from the UNDP initiative of promoting pilot programmes for *in situ* conservation and enhancing public awareness of and concern for biodiversity. A part of this initiative is the designation of a major technical focal point in the Region to spearhead this responsibility. Within the framework of an integrated approach, the focal point is the Southern Cone Regional Network..

29. Despite the willingness and interest, in most cases there is still a need for strategic plans for wild species of crops and their conservation and use. Many problems exist in this area, not least the inadequate knowledge of the distribution of wild relatives, lack of clear priorities and methodologies, and insufficient management tools for ensuring minimum viable population sizes of target species. These national programmes will need support in this area. However, there is agreement that within the framework of an integrated strategy for the conservation and use of plant genetic resource, both *in situ* and *ex situ* conservation approaches should be complementary and each should enhance the relative advantage of the other.

## ***EX SITU* CONSERVATION**

30. *Ex situ* conservation has advanced more than *in situ* in the Region as is reflected by the number of *ex situ* conservation facilities in operation at national, regional and international level (primarily CGIAR Centres). At the national level, there are several working collections of plant breeders as well as collections established for long-term conservation at many agricultural research stations. Some countries (Argentina, Brazil, Chile, Colombia, Cuba, Ecuador and Venezuela) already have a significant portion of their indigenous accessions in reliable national genebank facilities. Some national programmes also have Memorandum of Understanding with the United States Department of Agriculture (USDA) for mutual access to each others' plant germplasm banks.

31. At the regional level, the Tropical Agricultural Research and Training Centre (CATIE) is playing a major role in maintaining a large diverse tropical forest and fruits species collection both *ex situ* and *in vitro*, as well as long-term seed storage, for the benefit of the member countries and other interested research facilities. In the Caribbean, The Caribbean Agricultural Research and Development Institute (CARDI) plays a role in maintaining *in vitro* root and tuber, banana and plantain collection for the Member Countries. The West Indies Central Sugar Cane Breeding Station in Barbados maintains a large collection of sugar-cane seed in storage, which is accessible

to all collaborating partners. An active in deep cool *in vitro* storage is being maintained in Cuba for sugar cane. Brazil, Argentina and Chile has developed long term seed storage banks with increasing collection sizes.

32. The Region is a host to major International Agricultural Research centres (CIAT, CIMMYT, CIP) which hold large collections of major food crop species (cassava, rice, dry bean, wheat, maize, potato, sweet potato and Andean crops). These resources have been put into the International Network of *Ex Situ* Collections under the Auspices of FAO, and the Centres have recognised the “inter-governmental authority of the FAO and its Commission on Genetic Resources for Food and Agriculture, in setting policies for the International Network”. IPGRI is also present in the Region lending support in capacity-building and documentation. These centres maintain good linkage with national programmes and collaborate in training, technical backstopping and germplasm exchange.

33. The holders of these *ex situ* collections at national and sub-regional level are in contact through their respective networks. Within the context of the implementation of the FAO Global Plan of Action, this will facilitate the step-by-step approach which is being undertaken within the Region to clarify, harmonise priorities and develop strategies for the conservation and sustainable use of plant genetic resources for food and agriculture.

## USE OF PLANT GENETIC RESOURCES

34. The plant genetic resources are conserved in order that they may be used now and in the future. With population pressure rising and less and less land available for agriculture, global food production and yields will have to increase. Most such productivity increase will depend on crop-improvement, which can only be achieved through the increased utilisation of the plant genetic resource base. The need for greater utilisation of plant genetic resources, both directly and indirectly, through plant breeding, complemented by modern biotechnology such as genomics and molecular markers, is urgent.

35. Because of the importance of the use of plant genetic resources for food and agriculture, the *Global Plan of Action* emphasises both conservation and use, and treats them in an integrated way. The utilisation of plant genetic resources refers to a wide range of activities that exceeds the mere process of “plant breeding” often equated with “utilisation”. Ultimately, plant genetic resources are also utilised through the maintenance, development and cultivation of farmers’ local varieties and the harvesting of wild food plants.

36. Many accessions in germplasm banks have not been adequately characterised and thus information about them is not easily accessible to potential users. CATIE, which has a large seed collection along with *ex situ* and *in vitro* conservation has established collaboration with the USDA National Seed Service Laboratory and US Universities to regenerate seed collections, characterise key collections using molecular markers, study and develop mechanism for the *in vitro* conservation of recalcitrant species. The data-base system is also being updated in order to facilitate the exchange of this information on a regional and global level.

37. Similarly, some national programmes have advanced considerably in the characterisation and evaluation of their germplasm collections for agronomic, morphological, biochemical characteristics, quality and resistance to bio-physical constraints. A few programmes are applying new biotechnologies such as molecular markers to assist in the characterisation of their key collections. In other cases, the programmes are limited by the kind of data collected and the lack of linkage between genebanks and users.

38. Another problem cited is the limited interest of the private sector to be involved in the many essential activities that are necessary for the effective use of local plant genetic resources commonly neglected. While locally adapted landrace varieties are still being used by farmers throughout the region, they have been traditionally neglected in modern plant breeding. Still they remain as an important source of valuable germplasm for use in improvement programmes. The capacity of the national programmes for the improvement of cultivated crops and for the production and distribution of seeds varies greatly. Some programmes are evaluating and characterising local germplasm and identifying new types for promotion, while others lack of this capacity. In most instances this limits the effective utilisation of local germplasm. However, some countries have private breeding activities which include the use of local genetic resources dedicated to the production of seeds for export.

39. With regards to government policies affecting germplasm utilisation, many countries have established plant health regulations, with the following three basic objectives:

- Protect the country's agriculture from imported pests and disease
- Protect farmers from poor quality seeds
- Ensure plant breeders are compensated for their efforts.

40. There is need to ensure that such regulations are supportive of seed production and distribution activities in order to enhance utilisation.

## **CAPACITY-BUILDING AT NATIONAL INSTITUTIONS**

41. *FAO promotes plant genetic resources programmes and capacity-building in support to national programmes and to foster international co-operation within the framework of the Global Plan of Action Various training courses and workshops were organised under this element.*

42. The ultimate purpose of national programmes for the conservation and sustainable use of PGRFA, identified during the preparatory process for the International Technical Conference, is to contribute to national development and sustainable agriculture. Within this context, national programmes should aim to identify and address national requirements for PGRFA. To achieve these aims, national programmes need the capacity to carry out three basic functions:

- Elaboration of policies and strategies to meet country objectives for PGRFA conservation and utilisation.
- Co-ordination of activities within the country, facilitating participation and co-operation between all stakeholders.
- Provision of focal point to foster regional and international collaboration.

43. Among the countries of Latin America and the Caribbean, formal national programmes exist in Brazil, Cuba and Honduras but the need to develop such programmes is strongly felt throughout the Region. Plant genetic resources activities are carried out by various institutes with crop-specific mandates in most countries in the Region. In Argentina, Chile, Ecuador, Peru and Venezuela there are lead institutions that have responsibility for plant genetic resources activity.

44. In the Caribbean sub-region, only Cuba is reported to have a functioning integrated national plant genetic resources system supported by legal instruments. Its national system involves 18 research institutions, two botanical gardens, five ministries, one service agency and one NGO. In the other Caribbean countries, individual institutions have conducted *ad hoc* plant genetic resources activities without, however, establishing a formal national system or formulating and enacting official policies and legislation. The Caribbean Committee for Management of Plant Genetic Resource is playing a lead role in promoting the formation of national programmes.

45. Within the Region and sub-regions, the countries do have many crops and plant genetic diversity in common. For this reason, efforts have been undertaken to strengthen sub-regional collaboration for better management and enhancement of plant genetic resources. This has resulted in convening two regional meetings at Cali, Colombia (1998) and Colonia, Uruguay (1999), involving all collaborating partners in the process.

46. These meetings have revealed that there are national plant genetic resource programmes at varying levels of development and in differing categories, which in general respond to the institutional and national needs. Although many of these national systems have not yet developed to the level of established guidelines of the GPA, they are responding to local needs, developing national plans and prioritising research. Examples of the formats at national systems are:

- Committee on National Strategy on Biological Diversity.
- National programmes for Genetic Resources within Institutes for Agricultural Research.
- Technical focal point within the Ministries of Agriculture.
- National Committee on Plant genetic Resources. These committees consist of representatives from public and private sectors as well as universities.

47. Through these varied structures, the national programmes have been able to participate in networks, conduct national campaigns to create awareness, encourage a participatory approach for the formulation of a national strategy and identify training needs for capacity-building. The meeting agreed that within the framework of capacity-building, exchange of experiences or South-South interchange will be encouraged and the curriculum of institutions of higher learning in the Region will be retailored to cater for the technical need of plant genetic resource conservation and sustainable utilisation.

48. For cost-effectiveness and success, the regional networks are planning to access these support facilities through a Regional Integration Mechanism.

## **REGIONAL INTEGRATION MECHANISM FOR THE IMPLEMENTATION OF THE *GLOBAL PLAN OF ACTION***

49. The *Global Plan of Action* identified crop-related networks and regional networks on plant genetic resources as a priority activity. During 1997 and 1998, FAO supported and assisted governments to establish various global, inter-regional and regional crop-related networks, established in co-operation with national scientific organisations and FAO regional offices, which play an important role in promoting conservation and utilisation of plant genetic resources for food and agriculture. This has provided the catalyst for this Regional Integration Mechanism initiative.

50. Indeed, several plant genetic resources, crop-related and plant biotechnology networks have been formed (PROCIANDINO, PROCITROPICOS, PROCISUR, PROMECAFE, REMERFI, TROPIGEN, CABNETGR, CENARGEN, PROMECAFE, REDBIO, RELAFRUT, IACNET, CMPGGR, GRUTHA). Within the framework of these networks, several meetings have been held in collaboration with supporting organisations as FAO, IICA, IPGRI, CATIE, CIRAD and CIAT in order to link these networks through an integrated regional mechanism.

51. During its the first Regional Meeting for the Implementation of the GPA held in Cali, Colombia, in September 1998, the members of the sub-regional networks identified as priorities:

- Inventory of the plant genetic resources for food and agriculture and maintenance of existing *ex situ* collections.
- Increase the characterisation, evaluation and identification of new collections in order to facilitate their use.
- Promote the creation and consolidation of strong national programmes.
- Creation of an ample information system of plant genetic resources for food and agriculture.
- Increase and improvement of teaching and training.

52. In order to realise this, the meeting recommended the following:

- That the networks develop pre-proposals along the four main thematic lines identified as priority.
- That the collaborators maintain contact by electronic means.
- To strengthen the linkage among countries of the Region.
- Establish a mechanism for regional integration in order to facilitate the implementation of the *Global Plan of Action*.

53. The second meeting, supported by FAO, held in Colonia, Uruguay, in July 1999, was the first annual meeting on the Co-ordination of a Regional Integration Mechanism (RIM) for the implementation of the *Global Plan of Action*. The RIM consists of representatives of four sub-regional networks dealing with conservation and sustainable use of plant genetic resources in Latin America and the Caribbean. This mechanism will maintain linkages and consultations with technical and relevant policy institutions and agencies for its co-ordinating activities and promotion of the PGR concept.

54. Within the framework of the *Plan* at the regional level, the RIM has as its objective:

- Monitor the state of implementation of the annual work plan of project activities.
- Identify opportunities for joint action and stronger linkage.
- Promote synergy and co-operation among the networks and facilitate collaboration with international organisations.

- Identify source of funding for projects to be implemented by the RIM.

55. The co-ordination of the mechanism will be rotated annually among the networks of the four sub-regions. The host co-ordinator will be responsible to co-ordinate the activities and inform the technical focal points at the sub-regional networks of the progress. The first year of co-ordination has been successfully completed by the Southern Cone co-ordinator and the current co-ordinator is the technical focal point for the Meso-America region. The process to legitimise this mechanism has started. The request for its recognition by FAO has been made so that it could be considered by the next FAO Conference meeting.

## **PRIORITY AREAS, PROJECT PRE-PROPOSALS, PROSPECTIVE AND FOLLOW UP**

56. The Colonia meeting, the first meeting of the RIM, considered four thematic areas as priority areas for action in compliance with the *Global Plan of Action*. The sub-regional networks harmonised their needs and or priorities and developed pre-proposals for consideration for funding. These pre-proposals have been approved by the national programme partners. A summary of these pre-proposals is as follow:

### **STRENGTHENING NATIONAL SYSTEMS FOR CONSERVATION AND SUSTAINABLE USE OF PLANT GENETIC RESOURCES**

57. The issue of continued population growth and deforestation is increasing pressure on plant genetic resources, yet there are many countries which do not have adequate systems in place to cope with the decline of their plant genetic resources. It was recognised that there is a particular need to promote the links between the various actors involved in the conservation and use of genetic resources, including farmers' organisations, governmental institutions, research and teaching institutions, NGOs, women's groups and the private sector, all of which have complementary roles to play.

58. The developed pre-proposal emphasised the importance of providing additional support to encourage the formation and strengthen national programmes to develop capacities to better manage their plant genetic resources and be active partners and contributors to the International network.

59. The purpose of the proposal is to create the kind of national capacity that will facilitate the implementation of the *Global Plan of Action*. The expected results are:

- Diagnostics on the status of information on plant genetic resources in participating countries.
- Establish national capacity to deal with plant genetic resources in countries that have not yet started.
- Strengthen and improve on existing capacities to effectively implement the *Global Plan of Action*.
- Contribute to the regional data base on plant genetic resources.

60. The technical focal point for this activity within the RIM framework is the Co-ordinator for Plant Genetic Resources, at the Ministry of Agriculture, in Colombia.

### **GERMPLASM CHARACTERISATION, INVENTORY, MAINTENANCE AND REGENERATION**

61. The level of germplasm use could be greatly increased if the information about the material is made available to potential users. There are several collections in the Region that are in need of being characterised and regenerated in order to reduce the chances of genetic erosion while in storage and thus improve on management and use. Similarly, traditional varieties/species of economic importance and other land races of high potential for the Region, require priority attention for collection, evaluation and maintenance. During the first Annual Meeting of the Regional Integration Mechanism, the networks agreed on the need for characterisation, inventory, maintenance and regeneration as a priority. Its main aim is to improve conservation and sustainable use of high value species in existing collections and advance with the characterisation and regeneration of the principal crops for food and agriculture in the Region.

62. Within the framework of the mechanism, the group intends to intensify diversification and promote the use of under-utilised genetic resources. Methodologies will be sought to optimise the conservation of recalcitrant species. For important species, which are not adequately represented in the collections, special efforts to collect them will be promoted.

63. The expected outcome from this regional collaborative effort are:

- Use of improved methods for collection, short, medium and long term conservation *in vitro* and seed form.
- Sustainable use of plant genetic resources in the Region.
- Updated inventory of the main species in each collaborating country.
- Systematic regeneration of material in storage to avoid genetic erosion.

64. The technical focal point within RIM for this activity is the REMERFI representative, at the Agronomy Department in the Ministry of Agriculture, Costa Rica.

### **INFORMATION AND DOCUMENTATION FOR THE MANAGEMENT OF PLANT GENETIC RESOURCES**

65. The collection, dissemination and exchange of data and information on plant genetic resources for conservation and use in the Region is far short of the stage it could be. The documentation of wild relatives of cultivated species and those *in situ* is lacking. Furthermore, there is a lack of harmony of the different kinds of data base among the collaborators. For this reason, RIM stressed the need for a data model that will facilitate harmonising the different sources of data sets to facilitate the flow to and from users and contributors.

66. Using this mechanism, the Region would establish an information and documentation system, which will permit interchange and improved management of plant genetic resource for

food and agriculture in Latin America and the Caribbean. Its major aim is to harmonise the data base systems to facilitate communication and exchange of information using common criteria.

67. The expected results from this initiative will be:

- Establish the state of the art of the documentation/information of plant genetic resources in the Region
- A harmonised data base system that will facilitate interchange of information and implementation of the *Global Plan of Action*.
- A state of the art data base system which will be accessible internationally.

68. The technical focal point for this exercise is the President of the National Commission for Plant Genetic Resources (CITMA), in Cuba.

### **CAPACITY-BUILDING FOR SUSTAINABLE USE OF PLANT GENETIC RESOURCES**

69. The conservation and sustainable use of plant genetic resources continues to be an important challenge for Latin America and the Caribbean. The vastness of the plant genetic resources in the Region implies that much commitment must be made to optimally document and manage this resource. The *Global Plan of Action* and the Convention on Biological Diversity entail the training of the necessary human resources for this undertaking.

70. There is a need to create awareness of the value of biological diversity in the countries of the Region, which is hampered by limited trained human resources and limited access to the advanced technology needed to rescue, conserve and use germplasm. It is therefore necessary to promote and consolidate a critical mass of trained professionals to address these needs. Through this mechanism the regions hope to adequately train human resource to formulate policies on intellectual property rights, biosafety regulations and overall management of germplasm banks as well as to apply advanced technologies for improved use of germplasm. A trained team of core resource persons within the networks would facilitate the implementation of the *Global Plan of Action*.

71. The expected results from this initiative would be:

- Increase participation of students in postgraduate training on matters related to plant genetic resources.
- Agreement among institutions of higher learning in the Region with regards to curriculum content and student exchange.
- Documentation of training modules.
- Interchange of resource persons across regions.

72. The technical focal point for this activity within the RIM's framework is the Co-ordinator of PROCISUR and INIA in Uruguay.

73. Consensus has been reached in terms of the technical appropriateness of the project proposals in line with the priorities of the *Plan*, and the respective networks will take all the necessary steps to seek funding at the national and donor level to implement the activities. Concurrently, the focal points of the networks are requesting the concurrence of their Governments to endorse the project proposals.

74. Besides developing pre-proposals, the development of this Regional Integration Mechanism will equally contribute to consolidating and legitimising the activity of the national programmes. It will contribute to the improvement of documentation and communication systems throughout the Region, which has been regarded as priority by the networks. It will facilitate the sharing of benefits derived from plant genetic resource for food and agriculture and to facilitate common regional prospective. An special effort by the RIM has to be focussed to the legitimising process in order to enable it to execute its mandate.