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COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

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FACILITATING AND MONITORING THE IMPLEMENTATION OF THE GLOBAL PLAN OF ACTION ON PLANT GENETIC RESOURCES

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FACILITATING AND MONITORING THE IMPLEMENTATION OF THE GLOBAL PLAN OF ACTION ON PLANT GENETIC RESOURCES

1. INTRODUCTION

1. One hundred and fifty countries adopted the *Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture* at the Leipzig International Technical Conference on Plant Genetic Resources (June 1996). The Conference agreed that “overall progress in the implementation of the Global Plan of Action and of the related follow-up processes would be monitored and guided by the national governments and other members of FAO, through the Commission on Genetic Resources for Food and Agriculture”, and that, “in order to discharge this function, the Commission could develop a phased programme with appropriate cost estimates, and a procedure for the review of the Global Plan”.¹ The Conference also welcomed the first *Report on the State of the World’s Plant Genetic Resources*, and agreed that it should be periodically updated.²

2. These decisions, which are in line with previous recommendations of the Commission, were endorsed by Council Resolution 1/111 (October 1996). Council further requested the FAO Secretariat “to review its capacities to support the progressive implementation, monitoring and updating of the *Global Plan of Action*, as well as the periodic updating of the *Report on the State of the World’s Plant Genetic Resources*, and to identify possible sources of financing”.

3. The Third Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP/CBD) (November 1996) welcomed the outcome of the International Technical Conference, and took note of the agreed follow-up, including the periodic updating of the *Report on the State of the World’s Plant Genetic Resources*, and the implementation of the *Global Plan of Action*.

4. At its Seventh Session, the Commission considered follow-up, and requested “that FAO play a proactive and creative role in facilitating and monitoring implementation of the *Global Plan of Action*”. It reviewed document CGRFA-7/97/5, *Monitoring the implementation, and review, of the Global Plan of Action* (which included a tentative timetable for reporting and monitoring, para. 22 to 28); agreed to develop a transparent and efficient monitoring process; and requested a report on implementation of the *Plan* for its Eighth Session.

5. Conference Resolution 1/97 (November 1997) welcomed the outcome of the International Technical Conference; encouraged “FAO to facilitate and promote the implementation of the Leipzig *Global Plan of Action*, as adopted, by all stakeholders”; and recommended “that FAO study the possibility of assisting developing countries in projects in conservation and sustainable use of genetic resources for food and agriculture in collaboration with UNDP, the World Bank and UNEP”.

6. The current document is intended to assist the Commission in developing its role of guiding implementation of the *Global Plan of Action* in three inter-related activities:

- facilitating implementation of the *Plan* by all Stakeholders;
- monitoring implementation of the *Plan*;

¹ ITCPGR/96/REP, para. 21.

² *Ibid*, para. 14.

- review and updating of the rolling *Plan*, and updating of the *Report on the State of the World's Plant Genetic Resources for Food and Agriculture*.

7. The *Plan* and the financing of its implementation, is also being addressed in the context of the revision of the International Undertaking on Plant Genetic Resources,³ and this may have a bearing on matters under discussion here.

2. FACILITATING THE IMPLEMENTATION OF THE *GLOBAL PLAN OF ACTION*

8. The Leipzig Conference agreed that follow-up required action at local, national, regional and international levels, involving all parties involved in its preparation: governments, local and regional authorities, regional and international organizations, (inter-governmental and non-governmental), the scientific community, the private sector, local communities and farmers, and other agricultural producers and their associations.⁴

9. At its Seventh Session, the Commission “requested that FAO play a proactive and creative role in facilitating and monitoring implementation of the *Global Plan of Action*, providing assistance and guidance to countries upon request, including, where appropriate, help in identifying possible new, additional and innovative sources of funding. The Commission considered it important that FAO give high priority to facilitating and promoting implementation of the *Plan*, and ensure adequate resources for these tasks.”

10. As part of this process, FAO, in 1998, organized a series of Regional Meetings, to promote implementation of the *Global Plan of Action*, during which countries identified the need for support through: identification of funding sources; development of project proposals and matching these with funding; preparation of guidelines; dissemination of case studies; and the strengthening of forums at regional, national, and community levels.

11. FAO could assist countries and major stakeholder groups in further articulating their needs, and in meeting them, through development of a “facilitating mechanism”, to promote implementation of the *Global Plan of Action*. Such a mechanism could:

- identify implementation opportunities, and assist in developing these in project form for the full range of potential funding sources;
- strengthen the involvement of all stakeholders in national and international programmes, particularly through capacity-building at local, national and regional level;
- promote implementation through a range of organizations, and provide coordination including of reporting on activities undertaken; and
- carry out case studies of representative activities, promote or undertake pilot activities, and catalyse larger scale action.

³ Article 8 bis of document CGRFA/IUND/4 Rev. 1. See also document CGRFA-8/99/13, Annex 2.

⁴ ITCPCR/96/REP, para. 19 and 20.

Such an approach would be in line with the five points of FAO's *New approach for the FAO field programme*.⁵

12. Such a facilitating mechanism would best be developed through consultation with stakeholders, including donors, and supported through multi-agency collaboration, including, as Conference suggested, UNDP, the World Bank, and UNEP. The International Plant Genetic Resources Institute (IPGRI), and other Agricultural Research Centres, could also play key roles. The actual implementation of activities at national level would remain the responsibility of countries, with their bilateral and multilateral donor partners. FAO can play itself a direct role in implementing specific activities of the *Plan*, where it has a comparative advantage, and in line with the *Plan*'s specific recommendations.⁶

13. These ideas are intended to be concordant with the various proposals for facilitating mechanisms made in the context of the ongoing negotiations for the revision of the International Undertaking. They will need to be developed in more detail once these are further advanced, possibly through a stakeholders' meeting.

14. The FAO Programme of Work and Budget 2000/2001 is under preparation, and will take into account the need to strengthen further the Organization's capacity to promote and facilitate implementation of the *Plan*, as well as to support the Commission in monitoring and guiding its implementation.

3. MONITORING THE IMPLEMENTATION OF THE GLOBAL PLAN OF ACTION

15. An overview report on the implementation of the *Global Plan of Action* is in document CGRFA-8/99/3. In the present document, only the monitoring process itself, and the implications for long-term monitoring, are considered.

16. Document CGRFA-8/99/3 is based on a preliminary analysis of some 100 country implementation reports, prepared by country focal points nominated during the Leipzig preparatory process, or afterwards in the context of the Regional Meetings held to promote implementation of the *Global Plan of Action*. These Reports were obtained through a simple questionnaire in 1998, reflecting the twenty priority activities of the *Plan*⁷ for each of which countries' information was requested on:

- actions undertaken since mid-1995, and funding sources;
- their prioritized main needs and the main constraints;
- opportunities for further actions, at national or sub-regional level, in the near future;
- and

⁵ These are: (1) Ensure continuing interaction between the Organization's normative and operational activities so that these are mutually supportive; (2) Draw maximum benefit from the Organization's comparative advantage and intervene where such advantage is known to exist; (3) Ensure that field programme activities have a tangible impact on the living conditions of the least privileged rural populations who should constitute FAO's core target group; (4) Build or reinforce national capabilities to ensure continuity of action, promote sustained self-reliance and effectively manage natural resources (a) at the level of farmers, and (b) at the level of national institutions (noting that a participatory approach is pre-requisite); and (5) Promote broader partnerships. (Information Note for Members and Partners of the Food and Agriculture Organization of the United Nations (FAO)).

⁶ For example, under the 1998-99 Programme of Work and Budget, FAO promotes: development of the International Network of *Ex Situ* Collections under the Auspices of FAO; and of an operational regeneration plan (activities 4 & 5); seed security (activities 3 and 13); and under-utilized genetic resources (activities 12 and 14). See document CGRFA-8/99/10.1, section 2.

⁷ For Europe, a more elaborate survey was prepared by IPGRI's Regional Office for Europe, on behalf of the European Cooperative Programme for Plant Genetic Resources.

- support required from regional or international organizations.

Countries were also requested to provide more detailed information about the state of development of their national programmes.

17. The survey was deliberately simple, in order to minimize the burden on countries. It nonetheless gave a reasonable picture of the state of implementation, and made it possible to analyse opportunities and constraints, during the Regional Meetings. Simplicity inevitably has some limitations:

- Only very general information was requested, except on national programmes. A more comprehensive survey would require more detailed information;
- Limited time meant, except in a very few cases, that country focal points could not consult stakeholder groups. A more comprehensive survey would require consultation of all main actors in the implementation of the *Plan*;
- There is little quantitative information.

Other problems were that:

- Despite the simple guidelines, many countries did not follow them, making synthesis of information difficult;
- Very few countries provided information on funding sources;
- Some focal points have changed, without notification to FAO.

18. As a trial of a methodology for a more comprehensive survey, and as a test of the availability of relevant information, one priority area was selected. In the light of the importance accorded by the *Global Plan of Action*, and reaffirmed by the Commission at its Seventh Session, Activity 15 was chosen. The information sought is listed in Part B of the Annex under Activity 15. The results are found in Document CGRFA-8/99/3. This survey showed that the detailed information requested was available in most countries, and the information was, in fact, easier to analyze than the more general part of the survey.

19. The Annex provides possible survey questions and indicators for all priority activities, which the Commission may wish to discuss for the future development of a more comprehensive survey. In doing so, the Commission may also wish to consider the following:

- (a) *Scale, complexity and periodicity of the process.* The more detailed the process, the greater time and effort will be needed from both countries and the Secretariat, with inevitable cost implications. There may be a trade-off between investment in monitoring implementation, and investment in promoting and facilitating implementation *per se*, but, effective monitoring will enable more efficient resources use.
- (b) *Use of criteria and indicators.* The International Technical Conference agreed that the Commission should “set the formats for receiving progress reports from all the parties concerned and establish criteria and indicators to assess progress”. The Commission at its Seventh Session considered the possible use of indicators,⁸ and agreed that a core

⁸ Document CGRFA-7/97/5, suggested that the Commission might wish to seek a limited number of indicators which:

- are simple, unambiguous and easy to use;
- would facilitate a critical assessment of progress of implementing specific activities within the *Global Plan of Action*;
- would facilitate the identification of gaps and needs, and consequently adjustments required to the *Plan*; and
- address the concerns of all stakeholders, including both bio-physical and social-economic concerns.

indicators set should be established, for a survey in the framework of the *Plan's* priority areas. Indicators may be developed on the basis of Part B of the Annex.

- (c) *Integration of a survey on expenditures.* At its Seventh Session, the Commission requested that the survey of expenditures on activities on plant genetic resources be updated, in the framework of the *Plan's* priority activity areas, for the current Session. The updated survey is in document CGRFA-8/99/4. With time and resource limitations, a full new survey with a detailed new survey of countries was not attempted. Moreover, the Commission has stressed the need for limiting the number of reports requested of countries, and it is accordingly proposed that such a survey be part of a more comprehensive survey on implementation of the *Plan*. This approach has been taken in developing the Annex (Part A.3). The Commission is invited to provide guidance.
- (d) *Linkage with other reporting requirements.* To limit the burden on countries, the Commission has also recommended that reporting to FAO on agricultural biodiversity be consistent with reporting to the CBD, the Commission on Sustainable Development and other relevant inter-governmental bodies, as well as for the *World Food Summit Plan of Action*. The Commission may wish to consider how reporting on implementation of the *Global Plan of Action* may partially satisfy countries' reporting on agrobiodiversity to the CBD, pursuant to Decision III/11 of the COP. Moreover, at regular sessions, the Commission reviews reports from many international organizations on their programmes, policies and activities, in all fields of agricultural biological diversity.⁹ Such reports have been made available to the COP/CBD.¹⁰ The Commission may wish to consider inviting such organizations to include specific information on their contribution to implementation of the *Plan* in future reports.
- (e) *Decentralization of reporting; use of focal points.* Focal points facilitate country reporting. The *Plan*, in accordance with Agenda 21, requests governments to designate or re-confirm focal points for periodic reporting on plant genetic resources for food and agriculture to FAO, the COP/CBD, and other appropriate bodies.¹¹ The Commission may wish to encourage countries to designate or re-confirm focal points in order to facilitate the reporting process, and consider the role of national committees and focal points, in monitoring the implementation of the *Global Plan of Action*.^{12 13}
- (f) *Use of electronic mail and the internet.* Information technology can greatly facilitate communication, and the internet can provide a platform for countries and focal points to input directly information. The FAO Global Plant and Pest Information System, and the Domestic Animal Diversity Information System use such an approach.
- (g) *Capacity-building.* Allowance may need to be made for national capacity-building in any comprehensive reporting programme, and built into relevant budgets and timetables.

20. The Commission may therefore wish to recommend that comprehensive reporting be undertaken during the 2000/2001 biennium, in the framework of the Reporting Format provided in the Annex (Part A), incorporating a survey of existing expenditures. The Secretariat estimates that this could be achieved using existing and planned resources, though additional resources would be needed for any complementary national capacity-building and for a number of the crop-specific and thematic studies proposed. The guidance of the Commission's Working Group on Plant Genetic Resources, may be required.

⁹ In this session, CGRFA-8/99/11.

¹⁰ See CGRFA-8/99/12.

¹¹ *Global Plan of Action*, para. 283.

¹² See CGRFA-Ex2/96/3.3, para. 33 - 35, and Chapter 5 of *the State of the World's Plant Genetic Resources*.

¹³ See UNEP/CBD/COP/3/REP, COP/CBD Decision III/11, and Priority Activity 15 of the *Plan*.

4. UPDATING THE ROLLING *GLOBAL PLAN OF ACTION AND THE REPORT ON THE STATE OF THE WORLD'S PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE*

21. To facilitate the objective analysis of changing needs for the updating of the rolling *Plan*, the process could be coordinated with the periodic updating of the *Report on the State of the World's Plant Genetic Resources*.

22. Information to monitor the implementation of the *Plan* and to update the *Report* should be gathered in an integrated process. The Commission may wish to consider the role of the World Information and Early Warning System in this process (document CGRFA-8/99/6), as well as gaps and short-comings which it has already identified in the *State of the World's Plant Genetic Resources*.¹⁴

23. For the International Technical Conference, two versions of the *State of the World's Plant Genetic Resources for Food and Agriculture* were prepared: a summary *Report*, of about 70 pages; and the full document of about 500 pages. It is proposed that the second edition of the *State of the World's Plant Genetic Resources for Food and Agriculture* be of the size of the summary *Report* supplemented by annexes to fill gaps, in particular, those identified by the Commission. Possible topics for such supplements include:

- crop-specific studies on the state of diversity, and conservation (including in centres of diversity) and use;
- methodologies available for plant genetic resources use in crop improvement, including new approaches to plant breeding, and the new biotechnologies;
- the impact of national, regional and global agricultural policies on the conservation and use of plant genetic resources;
- indicators for measuring genetic diversity, genetic vulnerability and genetic erosion;
- plant genetic resource management at farmer and community level;
- access to plant genetic resources for food and agriculture and the sharing of benefits derived from their use.

24. The Commission may also wish to consider coordination with the first *Report on the State of the World's Animal Genetic Resources for Food and Agriculture* expected to be finalized in 2002, 2003 or 2004, depending on the availability of extrabudgetary funds, (see documents CGRFA-8/99/2 and CGRFA/WG-AnGR-1/98/3) as well as, in the long term a combined *Report on the State of Agricultural Biodiversity*, perhaps by 2005 or 2006. In addition to crop and livestock genetic resources, such a report might extend to "functional biodiversity" in farming systems (such as soil biota, symbionts, pest, disease, and control organisms, and pollinators). The Commission may wish to recommend some preliminary assessments of such "functional biodiversity", to pave the way for the preparation of such a combined report.

¹⁴ CGRFA-Ex2/96/REP para. 10.

5. TENTATIVE TIMETABLE FOR REPORTING AND MONITORING

25. A provisional timetable for the monitoring and review process was provided to the Commission at its Seventh Session¹⁵, based on:

- the decision of the International Technical Conference that a first review of the *Plan* should be undertaken within four years of June 1996;
- the timing of the Commission's biennial regular sessions; and
- possible synergies with the periodic updating of the *Report on the State of the World's Plant Genetic Resources*.

26. Based on progress to date, and on the considerations in this report, the following updated timetable is proposed. This timetable assumes that the Commission's Working Group on Plant Genetic Resources would meet at least once each biennium, to provide oversight for the process. The Commission is invited to make the necessary adjustments.

- | | |
|------------------------|--|
| 1999, second semester: | <ul style="list-style-type: none"> • Finalization of reporting formats and indicators. • Re-designation of country focal points. |
| 2000, first semester: | <ul style="list-style-type: none"> • Guidelines for country <i>Global Plan of Action</i> implementation reports, dispatched to focal points. • In-country stakeholder consultation on the implementation of the <i>Plan</i>. • Supplements to <i>the State of the World's Plant Genetic Resources for Food and Agriculture</i> initiated. |
| 2000, second semester: | <ul style="list-style-type: none"> • Country implementation reports completed and dispatched to FAO. |
| 2001, first semester: | <ul style="list-style-type: none"> • Synthesis of country implementation reports and the second <i>Report on the State of the World's Plant Genetic Resources for Food and Agriculture</i> drafted. • Countries, through Commission and/or its Working Group on Plant Genetic Resources, review the synthesis of the country implementation reports, and the draft of the second <i>Report on the State of the World's Plant Genetic Resources</i>, and decide how to adjust the rolling <i>Global Plan of Action</i>. |
| 2001, second semester: | <ul style="list-style-type: none"> • Publication of the second <i>Report on the State of the World's Plant Genetic Resources</i>, and the thematic supplements. |

¹⁵ CGRFA-7/97/5 para. 22-28.

6. GUIDANCE REQUESTED FROM THE COMMISSION

27. The Commission may wish to provide guidance on actions to be taken by the Secretariat, and on a work programme for its Working Group on Plant Genetic Resources, *inter alia*, in relation to:

- arrangements and options for facilitating implementation of the *Global Plan of Action* (para. 8 - 14);
- formats for reporting, indicators and criteria, and the role of the Working Group in finalizing these (para. 18, 19 and Annex);
- how the information is generated through regular reporting by countries and organizations to the Commission,¹⁶ may be used effectively in monitoring implementation of the *Global Plan of Action*, and contribute to the countries' reporting pursuant to Decision III/11 of the COP/CBD (para. 19 (d));
- encouraging countries to designate or re-confirm focal points, and consult stakeholders (para. 19 (e));
- preparation of the second *Report on the State of the World's Plant Genetic Resources* (para. 21 - 24); and
- the proposed timetable (para. 26).

28. The Commission may wish to make appropriate recommendations to ensure that sufficient funds are available, from Regular Programme and/or extrabudgetary sources, for timely implementation of the work-programme.

¹⁶ Article 11 of the International Undertaking provides for countries to periodically report to FAO on the implementation of the Undertaking. International organizations with activities relevant to the conservation and use of plant genetic resources for food and agriculture regularly report to the Commission.

ANNEX

**OUTLINE OF POSSIBLE REPORTING FORMAT AND INDICATORS FOR
MONITORING THE IMPLEMENTATION OF THE *GLOBAL PLAN OF ACTION*****A. REPORTING FORMAT****1. General List of Actions, Constraints and Opportunities:**

For each of the priority activities of the *Plan*, the focal point would be requested to indicate:

- actions each year, since mid-1995;¹⁷
- the main national priority needs, and the main constraints to implementation;
- opportunities for further actions at national or sub-regional level; and
- actions or support needed from regional or international organizations.

2. Specific Implementation Indicators

For each of the *Plan's* priority activities, the focal point would be requested to indicate progress in achieving the aims of the *Plan*, according to the questions and indicators in the list below (Part B). Most indicators require qualitative information, backed by quantitative data or information on how a qualitative result is achieved, in order to substantiate it.

3. Expenditures on GPA Implementation

For each of the *Plan's* priorities, the focal point would be requested to provide the following information, according to the actions listed in response to **1**.¹⁸

- Total expenditure in-country, by source:
 - National governmental;
 - Multilateral or bilateral ODA or private foreign; or
 - Domestic private or NGO.
- Executing agent (government agency, foreign agency, domestic NGO or private sector).

For donor countries, the following additional information would be required for each priority activity:

- Total expenditure in foreign or international assistance;
- Financing type (multilateral; bilateral; private or NGO);
- Recipient countries / international organizations.

¹⁷ Where a particular project, programme or activity contributes to more than one priority, it should be listed under the main priority activity, and cross-referred under the others.

¹⁸ When a particular project, programme and activity contributes to more than one of the *Plan's* priorities, the estimated percent of the expenditure should be listed under each.

B. INDICATORS

In Situ Conservation and Development

Activity 1. Surveying and Inventorying Plant Genetic Resources for Food and Agriculture

- (i) Status of national plant genetic resources inventory. Threats identified. Wild relatives of domesticated species in protected areas. Use of results to inform national plant genetic resources conservation and use strategies.
- (ii) Methodologies developed for surveying and inventorying intra and inter-specific diversity in agro-ecological systems. Which?
- (iii) Recognition and consideration of local and indigenous knowledge in surveying and inventorying. How?
- (iv) Training and capacity-building in taxonomy, population biology, ethnobotany, and eco-regional or agro-ecological surveying. Number of persons trained. Use of GIS facilities and information.

Activity 2. Supporting On-farm Management and Improvement of Plant Genetic Resources for Food and Agriculture

- (i) Establishment or strengthening of participatory programmes and networks for on-farm and in-garden management of plant genetic resources. Number of on-farm programmes. Number of farmers actively involved.
- (ii) Incentives and other policies, including extension and research services, to facilitate and encourage on-farm management. Results of policy analysis, and changes in policies.
- (iii) Incorporation of gender and socio-cultural factors into design and implementation of agricultural research and plant genetic resources activities. How?
- (iv) Support to community-based institutions for on-farm management. Expenditures on support. Number of farmers involved.
- (v) Role of national genebanks and research institutes in on-farm improvement programmes. Number of landrace accessions multiplied for use on-farm. Number of accessions used in

developing new breeding populations. Strengthening of local capacity to participate in plant breeding.

- (vi) Interdisciplinary training in facilitating, improving and catalyzing on-farm plant genetic resources activities. Number of biological scientists, social scientists, extension agents, and farmers trained (male and female).
- (vii) Multidisciplinary scientific research: ethnobotany and socio-economics of plant genetic resources, population and conservation biology, crop improvement, little known crops. Results?

Activity 3. Assisting Farmers in Disaster Situations to Restore Agricultural Systems

- (i) Information systems to identify appropriate germplasm for re-introduction, after disasters.
- (ii) Planning for disaster-preparedness.
- (iii) Measures taken to strengthen farmers' ability to cope with disasters.
- (iv) Agreements to facilitate rapid acquisition, multiplication, restoration and provision of materials, to own country, and other countries.

Activity 4. Promoting *In Situ* Conservation of Wild Crop Relatives and Wild Plants for Food Production

- (i) Identification of wild food plants and wild relatives of crop plants for conservation *in situ*. How used? Used by women?
- (ii) Strategies for the management of wild crop relatives and species gathered for food, in protected areas.
- (iii) Measures taken to support local communities in sustainably managing relevant wild plants.

***Ex Situ* Conservation**

Activity 5. Sustaining Existing *Ex Situ* Collections

- (i) Measures taken to improve security of collections. Number of accessions transferred to long-term storage. Number of accessions duplicated in long-term storage.
- (ii) Agreements to facilitate secure storage in other countries.
- (iii) Measures taken to reduce redundancy and number of accessions involved.
- (iv) Number of persons trained in genebank management.

Activity 6. Regenerating Threatened *Ex Situ* Accessions

- (i) Number of accessions identified for priority regeneration. Breeders and curators involved.
- (ii) Number of accessions regenerated.
- (iii) Training and research to improve effectiveness and efficiency of regeneration.

Activity 7. Supporting Planned and Targeted Collecting of Plant Genetic Resources for Food and Agriculture

- (i) Number of accessions collected. Number for which long-term conservation secured.
- (ii) Number of men and women trained in scientific collecting.

Activity 8. Expanding *Ex Situ* Conservation Activities

- (i) Field genebanks established or strengthened. Number of accessions.
- (ii) Number of botanic gardens with plant genetic resources conservation programmes.
- (iii) Number of low-cost botanic gardens, arboreta, and field genebanks, established in universities, schools, *etc.*

- (iv) Development of *in vitro* conservation methodologies. Which crops?

Utilization of Plant Genetic Resources

Activity 9. Expanding the Characterization, Evaluation and Number of Core Collections to Facilitate Use

- (i) Identification of evaluation and characterization priorities.
- (ii) Numbers of accessions characterized, and evaluated. Which traits? Number of institutions involved.
- (iii) Number of core collections assembled.
- (iv) Numbers of national programme staff, and farmers trained in on-farm evaluation (male, female).

Activity 10. Increasing Genetic Enhancement and Base-Broadening Efforts

- (i) Identification of genetic enhancement and base-broadening needs. Numbers of crops for which state of diversity and use is being studied. Involvement of crop networks.
- (ii) Establishment of genetic enhancement and pre-breeding programmes. Number of genetic enhancement by introgression programmes by crop species. Number of incorporation/base broadening type programmes by crop species?
- (iii) Funding and logistical support to pre-breeding, genetic enhancement and base-broadening. Funding by crop species, and duration of funding?

Activity 11. Promoting Sustainable Agriculture through Diversification of Crop Production and Broader Diversity in Crops

- (i) Genetic uniformity monitoring and/or vulnerability assessment programmes.
- (ii) Measures taken to increase the use of mixtures, and/or a range of varieties.
- (iii) Decentralized and participatory plant breeding activities.

Activity 12. Promoting Development and Commercialization of Under-utilised Crops and Species

- (i) Measures taken to:
 - (a) identify potential of under-utilised species;
 - (b) develop and implement sustainable management practices;
 - (c) develop post-harvest processing; and
 - (d) market crops and products.

- (ii) Number of farmers scientists, extension workers trained (male, female).

Activity 13. Supporting Seed Production and Distribution

- (i) Development of national seed policies and legislation, including for resource-poor farmers, non-commercial crops, and distribution of non-uniform varieties.

- (ii) Incentives to private sector, especially small-scale, farm-level seed enterprises.

- (iii) Support to farmer organizations.

Activity 14. Developing New Markets for Local Varieties and “Diversity-Rich” Products

Development of new markets for local varieties and “diversity-rich” products.

Institutions and Capacity-Building

Activity 15. Building Strong National Programmes

- (i) Establishment of national programme; date; name of national coordinator or focal point.

- (ii) Establishment of a national committee; date; date last met, name of chair.

- (iii) Date of national workshop(s).

- (iv) Coordination of crop forest, and animal genetic resource programmes.

-
- (v) Involvement of national committee/programme in the drafting national report and implementing action plans for the CBD.
- (vi) Involvement in the national committee/programme of:
- farmers,
 - plant breeders,
 - private sector,
 - NGOs, and
 - Universities.
- (vii) Changes, since 1995, in national policy and legislation for biodiversity and genetic resources for food and agriculture: patents; plant breeders' rights or other *sui generis* rights; seed legislation; nature protection; status of reserves, institutions and collections; subsidies for the conservation and sustainable use of plant genetic resources; *etc.*

Activity 16. Promoting Networks for Plant Genetic Resources for Food and Agriculture

- (i) Participation in regional networks. Date of last network activities. Benefits of participation.
- (ii) Participation in crop networks. Which? Benefits of participation.

Activity 17. Constructing Comprehensive Information Systems for Plant Genetic Resources for Food and Agriculture

- (i) Documentation of national collections. Number of information users.
- (ii) Access to international databases. Dates of last use of, or contribution to, international databases.

Activity 18. Developing Monitoring and Early Warning Systems for Loss of Plant Genetic Resources for Food and Agriculture

- (i) Measures taken to assess genetic erosion and its consequences.
- (ii) Numbers of persons trained in gathering and interpreting information on diversity and threats.

Activity 19. Expanding and Improving Education and Training

- (i) Number of national programme personnel and others trained. Who? Participation in national, regional and/or international training courses.

- (ii) Number of educational programmes incorporating plant genetic resources aspects.

Activity 20. Promoting Public Awareness of the Value of Plant Genetic Resources for Food and Agriculture Conservation and Use

Measures taken to promote awareness: general public, educational and research institutes, policy makers.