

**FAO International Technical Conference
on Plant Genetic Resources**

**REPORT OF THE SUB-REGIONAL
PREPARATORY MEETING FOR
NORTH AMERICA**

**Ottawa, Canada
7-8 December 1995**



**Food
and
Agriculture
Organization
of
the
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INTRODUCTION

Opening

1. Representatives of both countries of the region, Canada and the United States of America, met in Ottawa, Canada on December 7-8 1995. Observers from two non-governmental organizations as well as the Food and Agriculture Organization and the International Plant Genetic Resources Institute (IPGRI) also attended the meeting.

2. The meeting was opened by Dr. Charles Riemenschneider, Director of the North American Liaison Office (LNOR) for FAO. He welcomed participants on behalf of the Director General of FAO, Dr. Jacques Diouf and thanked Canada for hosting the meeting. He noted that the subject of plant genetic resources is an important topic for FAO because of its role in long-term food security and sustainable development. He noted that the United States donated more than one million dollars to the preparation of the Fourth International Technical Conference and that Canada provided staff to the Secretariat and organized and funded workshops on boreal forests and on plant genetic resources in French-speaking Africa. He complimented the two countries for including members of non-governmental organizations and the private sector in their delegations.

3. Dr. Brian Morrissey, Assistant Deputy Minister (Research) of Agriculture and Agri-Food Canada, welcomed participants on behalf of the host country. He emphasized that no single country can hope to preserve all the genetic diversity of all the crops that it might ever use for the rest of time. Countries around the world must therefore work together, or we shall all lose out.

Election of Officers

4. Ms. Susan Mills (Canada) was elected to chair the meeting and Dr. Henry Shands (United States) was elected as vice-chair. Dr. Brad Fraleigh (Canada) was elected as rapporteur. The agenda was adopted by the meeting, with the addition of an item on other business.

5. Participants in the meeting identified themselves, their affiliations and their interest in plant genetic resources.



PRESENTATION OF COUNTRY REPORTS

6. Dr. Bruce Coulman presented highlights from the Canada Country Report, which was prepared under the auspices of the Expert Committee on Plant and Microbial Genetic Resources. The forest component was prepared by the Canadian Forest Service, which also provided documentation on the International Boreal Forest Genetic Resources Workshop for the consideration of participants.

7. Dr. Allan Stoner presented highlights from the United States Country Report. He noted that there was no component on forest genetic resources present in this report. In response to questions, it was stated that foreign collaborators requested mostly samples of elite material rather than landraces. The amount of plant breeding is declining for some crops.

PRESENTATION OF RESULTS OF OTHER SUB-REGIONAL MEETINGS

8. Dr. Cary Fowler, Project Manager, FAO International Conference and Programme for Plant Genetic Resources, thanked the Government of Canada for hosting the meeting. He expressed his appreciation to both countries for their generous support to the project and their active participation in the preparatory process leading to the Fourth International Technical Conference on Plant Genetic Resources.

9. Dr. Fowler reviewed this preparatory process leading to the Fourth International Technical Conference. He stressed his Secretariat's partnership with IPGRI in this work. He noted that 148 countries submitted Country Reports; these are a valuable resource which needs to be made available more generally. More than 150 countries as well as international non-governmental organizations participated in sub-regional meetings. Dr. Fowler stated that the process has been participatory, transparent and country-driven, an approach which should help foster a sense of commitment. He noted that the draft Global Plan of Action will draw upon country and regional recommendations.

10. Dr. Fowler discussed some of the results to date. Many countries reported lacking *ex situ* facilities; however, on the sub-regional level, coordination and cooperation in the use of facilities and international cooperation have been cited as higher priorities. Many countries reported grave problems in maintaining the viability of seed stocks in *ex situ* collections



and making information on plant genetic resources collections available to potential users. The linkage between genetic resources conservation and their use in breeding programs is often tenuous. Often, genetic resources managers do not have the means to conserve genetic resources or to make them available for development.

11. Dr. Fowler stated that some of the topics emphasized in other sub-regional meetings were: the importance of national programs; *in situ* and on-farm conservation and development; the need for training, and the need for greater public awareness of plant genetic resources. He mentioned that some reports called for activities which may need to be addressed in other fora outside the Global Plan of Action. Finally, in response to questions, he described current Secretariat thinking about the format of the Global Plan of Action and the State of the World Report.

12. Some delegates and observers made general comments on the preparation of the Leipzig Conference and their work in plant genetic resources for food and agriculture.

DISCUSSION OF THE GLOBAL PLAN OF ACTION

13. The meeting decided to discuss this issue in an informal way and asked the Chair to recognize members of delegations without ceremony. It was also decided that observers should be recognized informally as appropriate during the discussion of issues. It was noted that the reports of the other sub-regional meetings were useful to guide the discussions. Because of the time available to develop recommendations, the meeting decided to use the European report as a starting point. The meeting agreed that its goal was to develop a North American perspective for a Global Plan of Action, rather than a regional plan of action.

14. The American Seed Trade Association provided documentary information on the perspectives of its members for the consideration of the participants.

15. The meeting discussed the Global Plan of Action during the afternoon of the first day and struck a small contact group chaired by the Vice-Chair to draft statements of purpose for the issue areas. On the second day, the meeting finalized and adopted its recommendations, shown in Appendix I.



16. Dr. Fowler explained the current Secretariat approach to drafting the concluding section of the Global Plan of Action. He indicated that the Secretariat is attempting to develop "order of magnitude" cost estimates for each activity area in the Global Plan of Action. The Secretariat will also attempt to draft options for criteria for allocation of resources to address the plan's activities.

17. Dr. Fowler explained that the Secretariat is working on providing examples of indicative projects rather than a comprehensive project portfolio addressing all aspects of the Global Plan of Action.

DISCUSSION OF THE STATE OF THE WORLD REPORT

18. Dr. Fowler recalled the description he had provided the previous day regarding the format of the State of the World Report. He noted that the format discussed by the FAO Commission on Plant Genetic Resources presented some difficulties in terms of linking the assessment of the state of resources with the state of institutions. The Secretariat is envisaging other formats as well.

19. The meeting expressed its understanding of the need to remain flexible in the written presentation of the State of the World Report.

OTHER BUSINESS

20. Level of representation at Leipzig: the meeting recommended that, in view of the vital importance of this Conference to agriculture and to world food security, governments should endeavor to be represented at a high policy level at an appropriate time during the meeting. The Conference may wish to convene a high level segment, with activities appropriate for senior policy officials.



CLOSING

21. The report of the meeting was adopted at 3:30 p.m. on Friday, December 8, 1995.

22. Dr. Henry Shands closed the meeting. He stressed the importance of the Fourth International Technical Conference. As Vice-Chair of the meeting, Dr. Shands thanked the participants, interpreters, other officers and the host country for organizing the meeting.



APPENDIX I RECOMMENDATIONS FOR THE GLOBAL PLAN OF ACTION

Context and Principles

(1) Statement of purpose:

The international community recognizes that international cooperation is essential for the conservation and sustainable use of plant genetic resources, as recognized in Chapter 14G of Agenda 21 and other international documents. The Global Plan of Action should promote global food security through strengthening conservation and sustainable use in this context.

(2) The Meeting recommends:

- (a) that the Global Plan of Action must encourage efficiency (core collection concept, common database, etc.) and synergies of national, sub-regional, regional, and global programs for complementarity and effectiveness;
- (b) that the Global Plan of Action must identify and seek to resolve gaps in all phases of conservation (aspects identified in the recent review of the CGIAR plant genetic resources programs¹ such as: representation of genetic diversity, training, maintenance, evaluation, databases, etc.) as well as unnecessary duplication of accessions;
- (c) that the Global Plan of Action must build upon the existing global system, especially the genetic resources conservation program of the International Agricultural Research Centres;
- (d) that the Global Plan of Action must build upon crop and activity driven networks, open to any country where the crop is grown, utilizing the capacities of the IARCs as conveners and facilitators in both conservation and crop development at both sub-regional and regional levels;
- (e) that the Global Plan of Action help facilitate unrestricted access to plant genetic resources for food and agriculture for *bona fide* users for research and breeding purposes;
- (f) that the Global Plan of Action address in principle plant genetic resources for food and agriculture;
- (g) that governments should monitor the implementation of national, regional and global components of a Global Plan of Action;

1 "Stripe Study of Genetic Resources in the CGIAR", Consultative Group on International Research, Technical Advisory Committee document AGR/TAC:IAR/94/2. March 1994.



- (h) that the recommendation of the FAO Commission on Plant Genetic Resources be implemented, to integrate, within the International Network of *ex situ* Collections under the auspices of FAO, the collections held by countries and institutes which have signed agreements with IPGRI (formerly IBPGR) making commitments for the unrestricted availability and the long-term conservation of such collections;
- (i) that existing global initiatives which relate to the conservation and use of genetic resources for food and agriculture (taken by FAO, UNEP, UNDP, UNESCO, CGIAR, IUFRO, etc.) be implemented in close collaboration within the context of the FAO Global System on PGR and in harmony with the Convention on Biological Diversity; and
- (j) that everyone be made aware about their dependence upon and their requirements for the conservation and utilization of genetic resources and the role they play in world food security be further promoted at all levels and with all relevant parties.

National Commitment to Conservation of Plant Genetic Resources for Food and Agriculture

(3) Statement of purpose:

National plant genetic resources programs are the building blocks of international cooperation.

(4) The Meeting recommends:

- (a) that the Global Plan of Action must guide national programs to position themselves to support domestic food security and contribute to and benefit from regional and global efforts to take care of their unique needs;
- (b) that the Global Plan of Action must recognize that in order to enhance national food security, public awareness and political resolve are necessary to support conservation and sustainable use of plant genetic resources;
- (c) that countries encourage the conservation and sustainable use of plant genetic resources with the participation of all relevant partners including government ministries, research institutes, universities, the private sector, non-governmental organizations and local and indigenous communities;
- (d) that countries take steps as appropriate to encourage the development of integrated programs through legal, policy or other relevant means;
- (e) that coordination mechanisms within countries, *inter alia* between relevant ministries, be adequate to ensure the most effective prioritization in the deployment of financial and other resources;



- (f) that coordination mechanisms at operational level be effective in avoiding duplication and promoting a coherent effort;
- (g) that opportunities be taken for collaboration among countries in order to avoid unnecessary duplication of holdings and efforts;
- (h) that in organizing systems of conservation at national, regional and international levels, the differing *ex situ* conservation requirements of seed-propagated and vegetatively propagated crops, and the different strategies necessary for *in situ* conservation, be taken into account;
- (i) that international organizations work with governments to develop the practical measures by which countries implement their international commitments;
- (j) that coordinated and prioritized action at national level be complemented by an international system that is likewise coordinated and prioritized;
- (k) that the Global Plan of Action must identify gaps and needs for training and development of expertise in conservation and utilization of plant genetic resources; and
- (l) that countries be encouraged to carry out research on the possible impact of legal, economic and agricultural policies on plant genetic resources and biodiversity.

Collaboration among Public and Private Sectors, Non-Governmental Organizations, and Indigenous and Local Communities

(5) Statement of purpose:

Strong national programs for conservation and sustainable use of plant genetic resources depend upon strong collaboration among public and private sectors, non-governmental organizations, and indigenous and local communities.

(6) The Meeting recommends:

- (a) active collaboration on mutually agreed terms among all parties concerned with the conservation, evaluation, enhancement and use of plant genetic resources;
- (b) that the Global Plan of Action identify working examples of conservation and sustainable use of plant genetic resources that support and maintain the social, economic, and cultural values of indigenous and local communities and improve the quality of life;
- (c) that primary characterization, evaluation, enhancement and adequate documentation be considered as important to facilitate collaboration with



- plant breeders and to promote the sustainable use of plant genetic resources;
- (d) that the status of collections held by countries should be defined and a clear commitment for long-term conservation formulated for those collections considered as national genetic resources;
 - (e) that designated genetic resources collections which were acquired and currently reside in the public domain be maintained in the public domain when privatization initiatives are being considered;
 - (f) that recognizing the long life cycles of trees and the need to secure the long-term conservation of these genetic resources (including those held privately) adequate consideration be given to the need for legal and financial support of relevant national programs;
 - (g) that the public sector, the private sector, non-governmental organizations and local and indigenous communities work towards improving the benefits of collaboration;
 - (h) that the needs and opportunities of working with non-governmental organizations be properly identified, and concrete actions be developed, particularly in the areas of training, access to reproductive material, national coordination of local initiatives, information, public awareness and assessing legal constraints to collaboration; and
 - (i) that a coordinated effort be developed to identify and protect the genetic resources of local and indigenous communities in an appropriate manner for their heritage value and use.

Complementarity Between *In situ* and *Ex situ* Conservation

(7) Statement of purpose:

Conservation and use of plant genetic resources *in situ* and *ex situ* are a complementary and an integral part of national and regional strategies.

(8) The Meeting recommends:

- (a) that a stronger collaboration on the conservation and sustainable use of wild plants be undertaken in the framework of international collaborative programs on plant genetic resources;
- (b) that coordination and closer collaboration among responsible institutions be strengthened, in particular institutions which have the power to designate protected areas for threatened germplasm of wild relatives of crop plants, such as environment, parks and natural resources institutions;



- (c) that regional and sub-regional cooperative programmes to promote *in situ* conservation be encouraged, as appropriate;
- (d) that the Global Plan of Action identify regions under threat of loss of genetic diversity (erosion, wipeout) and provide opportunities for plant collection and *ex-situ* conservation through regional, sub-regional and international collaboration;
- (e) that governments be encouraged to review their policies in plant genetic resources conservation and use to evaluate their effectiveness;
- (f) that collaborators and cooperators be identified and encouraged to conserve germplasm (varieties, landraces etc.) that is no longer available commercially, or that is less utilized, or has been replaced by new germplasm;
- (g) that research to determine conditions for effective programs in on-farm conservation and enhancement be encouraged; and
- (h) that increased attention be given to the role of on-farm, *in situ* conservation and enhancement, including its complementarity with *ex situ* and other *in situ* strategies.

Less Utilized Food and Agriculture Species and Wild Progenitors of Crop Species

(9) Statement of purpose:

There is a lack of knowledge about the diversity and distribution of less utilized food and agriculture species and wild progenitors of crop species.

(10) The Meeting recommends:

- (a) that the Global Plan of Action encourage collaborators to identify those areas where systematic studies and collections should be made to improve the potential for utilization of wild plants and less utilized species;
- (b) that the Global Plan of Action encourage the establishment of inventories of less utilized species and wild plants of economic significance which would include a list of species, their distribution and level of utilization at the local or sub-regional levels;
- (c) that actions be undertaken to select from the inventories those species which are most threatened and to ensure that they are included in the lists of endangered species of those countries where the threat is reported to occur;
- (d) that threatened species requiring emergency collecting and/or *in situ* conservation in protected areas be identified; and



- (e) that coordination mechanisms between existing institutes and initiatives on less utilized species and wild relatives of economically important species be improved.

Inventory of Plant Genetic Resources for Food and Agriculture

(11) Statement of purpose:

Databases and inventories are essential to provide information and access to potential users.

(12) The Meeting recommends:

- (a) that the Global Plan of Action highlight the need for and encourage development of compatible database systems to foster sharing of information on *ex situ* and *in situ* genetic resources and on research data about conservation and sustainable use of plant genetic resources.

Research and Training

(13) Statement of purpose:

Research and training in the fields of conservation and sustainable use of plant genetic resources for food and agriculture are essential to build capacity and to provide new knowledge and technologies critical to achieving conservation objectives.

(14) The Meeting recommends:

- (a) that the Global Plan of Action recommend kinds and levels of training necessary to meet the research and conservation needs of national and international programs;
- (b) that the Global Plan of Action highlight areas where countries can work together to pursue common research and training interests in conservation and utilization of plant genetic resources for food and agriculture;
- (c) that research programs dealing with the following aspects be given priority in allocation of funding:
- storage and regeneration methods,
 - preservation of knowledge, innovations and practices of indigenous and local communities about plant genetic resources,
 - identification and development of less utilized crops and wild species with potential economic importance in view of crop diversification,



- the characterization of useful traits in genebank collections,
 - development of methods for the assessment of the structure and evolution of the genetic diversity of crop genebanks, and its relationship to agricultural productivity, and
 - understanding the underlying causes of genetic erosion;
- (d) that, in light of the evolving nature of plant genetic resources research and the needs to be addressed, IPGRI maintain an ongoing consideration of international research priorities, drawing on its in-house capacities and its collaboration with all relevant partners; and
- (e) that capacity building and training in the area of plant genetic resources conservation and sustainable use be further developed at all levels from technical skills to post-graduate training.

International Collaboration

(15) Statement of purpose:

Capacity building and international collaboration are essential components of a global system for the conservation and sustainable use of plant genetic resources for food and agriculture. Inappropriate duplication of effort should be avoided.

(16) The Meeting recommends:

- (a) that the Global Plan of Action highlight and promote crop and activity networks with broad participation of relevant partners, at the sub-regional, regional, and international levels, open to any country where the crop is grown, to improve the efficiency and effectiveness of conservation and crop improvement;
- (b) that the Global Plan of Action identify and promote the leadership role for International Agricultural Research Centres in fostering regional collaboration in the conservation and enhancement of crop genetic resources;
- (c) that the Global Plan of Action encourage the International Agricultural Research Centres to play a greater role in assisting developing countries to strengthen their conservation efforts and develop a regional framework that enhances coordination between countries;
- (d) that multilateral and bilateral cooperation agencies foster and encourage appropriate programmes, projects and activities on the sub-regional, regional and global levels in areas including:



- training,
- technology transfer and information exchange,
- knowledge, innovations and practices of indigenous and local communities,
- policies,
- technical issues,
- research,
- rationalization of unplanned and unnecessary redundancy between collections, and
- safety duplication of collections;

(e) that consideration be given, *inter alia*, to the following:

- improvement of capacity-building at regional or national and local levels,
- development of methodologies for and documentation of innovative examples of community-based *in situ* conservation, and
- development of appropriate educational strategies, taking account of relevant existing experience, making use of local or regional capacity, and participation in appropriate clearing-house mechanisms;

(f) that more efficient conservation systems and improved utilization of plant genetic resources for food and agriculture be attained by making use of synergistic effects of international cooperation;

(g) that methods to establish core collections for important crops be further developed within the framework of international cooperation;

(h) that the status of collections be monitored through an effective early warning system and that measures be carried out to address emergency situations as necessary;

(i) that the role of the Consultative Group on International Agricultural Research (CGIAR) and other relevant organizations be encouraged in restoring genetic diversity and food security in response to catastrophic loss of crop germplasm and plant material resulting from natural or human-generated disaster;

(j) that the adaptation of the International Undertaking on Plant Genetic Resources in harmony with the Convention on Biological Diversity be completed as soon as possible, addressing the following issues in particular:



- access on mutually agreed terms to plant genetic resources, including access to samples of *ex situ* collections not addressed by the Convention,
- the realization of Farmers' Rights, and
- the fair and equitable sharing of the benefits arising from the use of genetic resources, including funding strategies; and

(k) that countries continue to collaborate in collecting plant genetic resources threatened by genetic erosion, on the basis of unrestricted access to samples of these resources for use in research, breeding and education.