REPORT OF THE
COMMISSION ON PLANT GENETIC RESOURCES

First Session

Rome, 11 - 15 March 1985

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
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SUMMARY OF RECOMMENDATIONS

Matters Requiring the Attention of FAO

Responses of countries and international institutions to FAO Conference Resolution 8/83 and Council Resolution 1/85

The Commission:

(i) **recommended** that the Director-General should appeal to all countries which had not yet subscribed to the Undertaking to give their endorsement (paragraph 12);

(ii) **recommended** that the Secretariat prepare for its second session a document analysing the reservations of countries and propose such actions which may lead to wider support by them for the Undertaking (paragraph 13);

(iii) **agreed** that the Secretariat should investigate ways and means to increase participation in the Commission by non-Member Nations (paragraph 15);

(iv) **recommended** that special attention be given to the avoidance of duplication or overlapping of activities and to ensure complementarity between the work of IBPGR and the Commission in the implementation of the Undertaking (paragraph 16).

Base Collections of Plant Genetic Resources

The Commission:

(i) **endorsed** the proposal that the Director-General approach the respective governments or international institutions on their wish that the base collections for which they were responsible should be part of the international network (paragraph 21);

(ii) **requested** the Secretariat to prepare a report for the Commission on the extent of duplication of samples world-wide (paragraph 22);

(iii) **requested** the Director-General to prepare a document examining the present legal situation related to ex situ base collections and to recommend any provisions necessary to further the objectives of the Undertaking (paragraph 29).

Status of in situ Conservation of Plant Genetic Resources

The Commission:

(i) **recommended** that the Commission give due attention to the important role of in situ conservation in its future programme of work (paragraph 32);

(ii) **recommended** strengthening efforts and giving immediate priority to:

a) raising awareness of the importance of in situ conservation among rural communities, particularly through the efforts of grass roots voluntary organizations, and among national land use planners, decision-makers and the international community;
b) dissemination of information: information on genetic resources should first be acquired locally and always be available locally, but as plants were no respecters of political boundaries, information needed to be compiled and disseminated at national, regional and international levels;

c) training in management of genetic resources;

d) research at national level within natural populations with high priority to gene-ecological research and ecogeographic surveys (paragraph 34);

(iii) requested FAO to place increased emphasis on assistance to developing countries in the formulation and execution of viable projects in in situ conservation of phytogenetic resources and in the generation of funding for such projects (paragraph 41).

International Information System on Plant Genetic Resources

The Commission:

(i) recommended that FAO collaborate with developing countries in the assessment of relative strengths and weaknesses of their capabilities in plant breeding (paragraph 48);

(ii) recommended that FAO should promote in collaboration with IBPGR, the establishment of evaluation networks, with the participation of crop-specific data bases, genebanks and relevant institutions, and mobilize additional funding for this purpose (paragraph 51);

(iii) stressing the importance of the FAO Seed Information System, recommended the speeding up of its development as an important part of an International Information System on Plant Genetic Resources (paragraph 53);

(iv) agreed that FAO should convene, in co-operation with IBPGR, an expert consultation in order to consider follow-up measures to promote information systems on plant genetic resources (paragraph 54).

Training activities and training requirements in the fields of plant genetic resources, plant breeding and seed production

The Commission:

(i) recommended that manpower assessments be undertaken at national level to determine the needs for the development of efficient systems of crop research and plant breeding and requested FAO to assist in such assessment when asked to do so (paragraph 56);

(ii) recommended that due consideration be given to management training, recognized to be very important in the field of plant genetic resources (paragraph 59);

(iii) recommended that FAO, IBPGR and other IARCs, and other institutions increase all forms of support relevant to training programmes (paragraph 62).
Future Work Programme of the Commission

The Commission:

(i) **recommended** that the letter of agreement between FAO and IBPGR signed in 1974 and implicitly renewed since then be reviewed by the parties concerned and if necessary modified to take into account the implementation of the Undertaking and the establishment of the Commission, giving particular attention to:

a) the formal and working relationship between FAO and IBPGR and the role IBPGR could play in implementing the Undertaking and the manner in which any duplication and overlap with FAO's activities could be avoided;

b) ascertaining the right of ownership of plant genetic resources held by the organizations and institutions in the IBPGR network (paragraph 66);

(ii) **recommended** that appropriate means be developed for communication between the two bodies so that each one of them be kept informed of the activities of the other (paragraph 68);

(iii) **recommended** that concerning **ex situ** conservation, additional attention be given to improving access to and utilization of these resources by developing countries, including appropriate legal considerations (paragraph 70);

(iv) **recommended** that concerning **in situ** conservation, FAO prepare for submission to the second session, a proposal for setting up an international network of protected areas, including information on both the logistics for establishing the network and the resources required (paragraph 70);

(v) **recommended** that additional attention and resources be devoted to fundamental research on genetic diversity (paragraph 73);

(vi) **recommended** that the relevant sections of its report be submitted to the Committee on Agriculture and the Committee on Forestry (paragraph 75);

(vii) decided to establish a Working Group with 23 members (paragraphs 78-80);

(viii) **recommended** four items to be included in the provisional agenda of its second session, and suggested seven others for possible inclusion (paragraphs 82, 83).
INTRODUCTION

1. The First Session of the Commission on Plant Genetic Resources (hereinafter referred to as "the Commission") was held in Rome from 11 to 15 March 1985 and was attended by representatives of 55 of the 67 Member Nations which are members of the Commission, by observers from 27 other Member Nations and by 3 representatives of the following organizations and bodies in the United Nations system: United Nations Educational, Social and Cultural Organization; United Nations Environment Programme; World Bank; representatives of the European Economic Community, and 8 observers from other international organizations also participated. The list of members of the Commission is attached as Appendix B, and the list of delegates and observers is attached as Appendix C.

ELECTION OF CHAIRMAN AND VICE-CHAIRMEN

2. The Commission elected Ambassador Carlos di Mottola Balestra (Costa Rica) as Chairman of the Commission, Mr John Glistrup (Denmark) as First Vice-Chairman, and Mr Mame Balla Sy (Senegal) as Second Vice-Chairman.

3. Dr D.F.R. Bommer, Assistant Director-General, Agriculture Department, welcomed the participants on behalf of the Director-General, and drew their attention to the importance of this first session for the further work of FAO on plant genetic resources. He pointed out that the Organization had pioneered numerous activities related to soil, water, plant and animal resources, and in particular to the conservation, development and use of natural resources for agriculture, forestry and fisheries. The concern of FAO about plant genetic resources dated back to 1961 and a few years later the Organization initiated international action through its expert panels for the collection, conservation and utilization of plant genetic resources. The adoption of the International Undertaking on Plant Genetic Resources (hereinafter referred to as "the Undertaking") by the Twenty-second Conference of FAO (1983) and the establishment of the Commission by the Eighty-fifth Session of the Council (1983) demonstrated the importance that FAO Member Nations attach to plant genetic resources as a world heritage for the well-being of present and future generations of mankind. Dr Bommer concluded by expressing the wish that the first session would set the tone for a constructive dialogue and harmonious achievement by nations on all matters related to plant genetic resources.

ADOPTION OF THE AGENDA

4. The Agenda as adopted is set out in Appendix A. The list of documents appears as Appendix D.

5. The Commission appointed the following members to the Drafting Committee: Australia, Cameroon, Cyprus, Greece, India, Mexico, Morocco, Peru, Philippines, Tunisia, United Kingdom. Mr Horacio Carandang (Philippines) served as Chairman of the Drafting Committee.

RESPONSES OF COUNTRIES AND INTERNATIONAL INSTITUTIONS TO FAO CONFERENCE RESOLUTION 8/83 AND COUNCIL RESOLUTION 1/85

6. The Commission discussed this item on the basis of documents CPGR/85/3 and CPGR/85/3/Addendum 2 which summarized the responses of countries, international organizations and institutions to FAO Conference Resolution 8/83 "International Undertaking on Plant Genetic Resources", and Council Resolution 1/85 "Establishment of a Commission on Plant Genetic Resources". Document CPGR/85/3 (Addendum 1) was also tabled for the information of the Commission containing extracts of the responses of the countries and international organizations and institutions to the Director-General's request concerning Resolution 8/83.
7. The Commission noted that of the 156 FAO Member Nations, 82 had officially responded indicating their interest in the Undertaking and the extent to which they could give effect to the principles contained therein. The Commission welcomed the announcement that 74 Member Nations had expressed support for the Undertaking without restriction, while 17 had expressed specific reservations. The Commission also noted that three responses had been received from the 13 non-Member Nations contacted by the Director-General. Two of these indicated their agreement to the Undertaking and one country declined to participate as it had no programme on plant genetic resources.

8. The Commission noted that of the 12 international organizations and institutions contacted all had responded. It expressed its satisfaction with the official support to the Undertaking given by Unesco and the United Nations Environment Programme (UNEP), and the response from the International Union for the Conservation of Nature and Natural Resources (IUCN) that, as far as possible, it would support and participate in the international arrangements. The Commission also welcomed the positive responses of the International Agricultural Research Centres (IARCs) of the Consultative Group on International Agricultural Research (CGIAR), four of which expressed their agreement and full support for the Undertaking; the other four indicated that, while agreeing with the aims of the Undertaking, they would have to wait for the approval of their boards before making any formal commitment. The Commission expressed its appreciation to these organizations and institutions for their efforts in collecting and conserving plant genetic resources and its hope that their activities to protect these resources for mankind would continue.

9. The Commission agreed that the 74 responses from Member Nations expressing support for the Undertaking was a positive beginning. It recognized that follow-up action was needed to ensure world-wide coverage. The Commission expressed its appreciation to the Secretariat for the clarification of various Articles of the Undertaking given in document CPGR/85/3, which would be useful in assisting countries to support the Undertaking. With regard to Articles 1 and 5 of the Undertaking, the Commission agreed that the sovereignty of governments over their plant genetic resources should be respected and that reciprocity in the exchange process was included in the substance of the Undertaking.

10. The Commission noted that some countries had indicated they were not in a position to adhere to the Undertaking because of specific Articles which were counter to their governments' national laws and international obligations. In this regard, the Commission agreed that the Undertaking was not a legally binding instrument and that adherence to it could not be interpreted as conflicting with legal instruments at national or international level. However, the Commission recognized that, while this could help reconcile countries' endorsement of the Undertaking in principle, it would not necessarily address the countries' difficulties, in practice, in putting the Undertaking into effect.

11. The Commission also noted that some countries could not support the Undertaking, because they lacked the means to give effect to the commitments contained therein. The difficulties faced by individual countries in supporting and giving effect to the Undertaking in its entirety were recognized. The Commission recalled that in Resolution 6/83, countries were requested to indicate to what extent they were in a position to give effect to the principles contained in the Undertaking. The Commission agreed that reservations on individual Articles, or difficulties in implementing specific aspects of the arrangements, should not preclude countries from responding positively to the Undertaking.

12. The Commission therefore urged these countries to respond positively to the overall Undertaking even though they might not be in a position to give effect to all aspects of the arrangements, or were required by their national situations to make reservations regarding specific Articles. In this regard,
the Commission recommended that the Director-General should appeal to all countries not yet subscribing to the Undertaking to respond positively and should draw their attention to the worldwide need to conserve plant genetic resources.

13. The Commission considered the suggestions from certain members regarding the desirability of modifying or amending the text of the Undertaking as a means of increasing adherence. The Commission noted that its mandate precluded it from making such changes itself, although it could, when necessary, recommend amendments. It recommended that the Secretariat prepare a paper, for consideration by the Commission at its next session, analyzing countries' reservations to specific portions of the Undertaking and delineating possible courses of action, including suggestions for possible interpretations of the text to increase acceptance of the Undertaking.

14. As regards membership of the Commission, it was agreed that the membership to date provided a positive base upon which to begin its work, but considered the participation of additional countries, especially those holding important genetic resources, to be urgently needed. It expressed the hope that observer Member Nations at the present session envisage becoming full Commission members.

15. The Commission noted that Article VI.1 of the FAO Constitution, under which it was established, precluded non-Member Nations of FAO from membership in the Commission. It agreed that the active participation of non-Member Nations of FAO would broaden the scope of the Commission and urged the Secretariat to investigate ways and means by which this could best be effected.

16. Several members expressed concern about possible duplication or overlapping of efforts which could arise out of the implementation of the Undertaking, and recommended that particular care be taken to avoid this. The Commission recognized the important contribution of the International Board for Plant Genetic Resources (IBPGR) in establishing an international network of genebanks and in the exchange and conservation of plant genetic resources. It recommended that special attention be given to ensuring complementarity between the work of IBPGR and the Commission in effecting the practical application of the Undertaking.

**BASE COLLECTIONS OF PLANT GENETIC RESOURCES**

17. The Commission examined the purpose, nature and present state of base collections which, together with the active collections, would form the core of an international network of plant genetic resources under the auspices or jurisdiction of FAO. The discussion was based on document CPGR/85/4 which dealt with the nature and role of base collections, the establishment of an international network of such collections and various aspects of its operation.

18. The Commission noted that the range of germplasm in base collections, quantity and variation of germplasm held, security and duplicates, and legal status of genetic resources in such collections, were the main points to be considered.

19. The Commission agreed that document CPGR/85/4 provided a very sound basis for discussion, and it also appreciated answers provided by the observer of the IBPGR to questions raised by various members on aspects of the responsibilities, policies and activities of IBPGR, particularly in the fields of training, genebank establishment, collecting and distribution of duplicates.

20. The Commission endorsed the proposals contained in paragraphs 33 to 47 of document CPGR/85/4 as a constructive basis for future developments of a global network of base collections.
21. In particular, the Commission endorsed the proposal that the Director-General approach the respective governments or international institutions on their wish that the base collection or collections for which they were responsible should be recognized as part of the international network of base collections in genebanks under the auspices of FAO. This would imply that material in the base collections would be available to all, through relevant active collections, for unrestricted mutual exchange.

22. The Commission stressed the importance of the duplication of samples for security purposes, as well as their maintenance in genebanks in the country of origin, and requested that the Secretariat prepare a report for the Commission, in consultation with competent organizations and institutions, on the extent of duplication of samples world-wide, their distribution, and the existing obstacles, if any, preventing duplication.

23. The Commission agreed that possibilities should be further explored for the storage of base collections under conditions requiring low energy input, such as permafrost.

24. The Commission stressed that more emphasis should be given to collection and conservation of vegetatively propagated crops, especially staple root-crops in Africa and other areas.

25. It was noted that lack of information on samples in collections was an important problem, and the Commission urged that IBPGR and FAO investigate possible steps to increase the availability of such information. The Commission also requested information on the extent of evaluation of samples in base collections.

26. The Commission stressed the need for well developed links between base collections and crop development programmes through intermediary active collections and plant breeding programmes. Noting the constraints in the plant breeding capabilities of many developing countries and the small number of genebanks in such countries, it urged FAO and IBPGR to mobilize increased assistance to these countries and to facilitate participation of their personnel in training for plant breeding and genetic resources work, and the establishment of national genebanks, especially in regions of genetic diversity.

27. The Commission noted the need for more research to be carried out on techniques for basic conservation, especially in the areas of storage of vegetatively propagated crops, and on assessment and prevention of genetic erosion. It stressed the need to give high priority to research in all technical aspects of plant genetic resources.

28. The Commission noted with satisfaction that a number of countries had expressed willingness to send duplicates of their plant genetic resources to banks in an international network under the auspices or jurisdiction of FAO and that at least one country at its own cost had already offered its bank and materials to be part of such an international network.

29. The Commission noted that the present informal, bona fide system in germplasm exchange generally worked satisfactorily, but did not provide all legal guarantees many considered necessary to ensure unrestricted exchange of material from base collections. The Commission requested the Director-General to prepare, in consultation with interested countries and with the competent organizations in the United Nations system, a document examining the present legal situation related to ex situ base collections and make, where appropriate, recommendations on any provisions considered necessary to further the objectives of the Undertaking. Most members were of the opinion that these provisions should be contained in a legal framework. Some members considered this unnecessary.

30. The Commission stressed the need to complement, in terms of crop and geographical coverage, the existing network of base collections. In this
context, particular attention should be given to the establishment of

genebanks in regions of important genetic diversity. Many members requested

that this work should be directed particularly to base collections, possibly

under the auspices or jurisdiction of FAO.

31. The Commission expressed its satisfaction at the close co-operation that

exists between FAO and IBPGR, and agreed that IBPGR was now being afforded a

very important opportunity for it to step up its services to all countries, in

particular developing countries.

STATUS OF IN SITU CONSERVATION OF PLANT GENETIC RESOURCES

32. The Commission acknowledged the important role of in situ conservation

of plant genetic resources and recommended that this strategy be given due

attention in the future work programme of the Commission.

33. Emphasizing the importance to integrate conservation with sustainable
development, the Commission stressed the need to consider in situ conservation
activities within the framework of overall land use planning and within the
context of prevailing socio-economic conditions. It recognized that long-term
genetic integrity of conservation areas could only be ensured if, in addition
to providing benefits for the future, their management helped to contribute to
the present wellbeing of local populations through suitable compensatory
measures.

34. Expressing concern over the fact that present efforts at national and
international levels did not adequately meet the urgent needs to conserve,
manage and utilize rapidly dwindling genetic resources of often unknown value
or potential, the Commission recommended that efforts in this field be
strengthened and that immediate priority be given to the following aspects:

(i) raising awareness of the importance of in situ conservation
among rural communities, particularly through the efforts
of grass roots voluntary organizations, and among national
land use planners, decision-makers and the international
community;

(ii) dissemination of information: information on genetic
resources should first be acquired locally and always be
available locally, but as plants were no respecters of
political boundaries, information needed to be compiled and
disseminated at national, regional and international
levels;

(iii) training: management of genetic resources was still a new
subject and training at all levels should therefore be
given priority (see paragraph 59);

(iv) research: most research needed to be undertaken within
natural populations, and therefore should be predominantly
local or national. Certain specialized research, however,
could rely on facilities in institutes of international
scope, e.g. taxonomy of both plants and associated animals,
medicinal or chemical properties of plants. Because of the
lack of knowledge on genetic diversity within many species,
especially in the tropics, gene-ecological research and
ecogeographic surveys should receive high priority in
genetic conservation projects.

35. Regarding field activities, the Commission underlined the importance of
making greatest possible use of existing protected areas in in situ
conservation efforts and stressed the need for thorough inventory and
documentation of such areas so as to identify those areas in which in situ
conservation should be promoted. It recognized that the effectiveness of
protected areas for genetic conservation purposes would depend on their siting, size, and management and that additional reserves would often be needed for the conservation of representative samples of the full genetic variation of target species.

36. The Commission noted that the conservation in situ of phytogenetic resources of actual or potential socio-economic value should be combined with other operations essential to their effective, overall management and sustained utilization, such as exploration, characterization and evaluation.

37. Recognizing that the ultimate aim of conservation was utilization, the Commission emphasized that provision in in situ reserves should be made for supervised and sustainable collection of seeds or other reproductive materials for use in particular by scientists, plant breeders and ex situ genebanks, with which the authorities in charge of in situ areas should work in the closest possible collaboration.

38. Acknowledging the fact that sampling of genetic diversity and methodology of in situ conservation should be based on sound, scientific knowledge and that they were closely related to the biology of the species in question, the Commission stressed the need for technical guidelines on in situ conservation of a number of priority species or genera, as well as pilot and demonstration field activities on specific species or groups of species. Assistance from FAO to member countries in tackling legal questions associated with the establishment and management of in situ reserves would also be welcomed.

39. Attempts having been made by a number of authorities to define global priorities for action in in situ conservation, the Commission acknowledged that such lists of identified species and genera, coupled with the identification of areas with a high concentration of valuable gene pools and strong pressure on existing natural resources, might allow field activities in in situ conservation to be started. However, it drew attention to the fact that final decisions on priority species had to be made at the national level, and should include not only species of current economic value but also those species which were of vital importance to local communities as providers of a range of goods and services such as food, fuel, fodder, medicines, shade, shelter and land stabilization. Stress should be laid on the arid and semi-arid zones and other ecologically critical areas which presented a number of different problems in resource conservation.

40. The Commission recognized that, in particular, population and economic pressure led to the erosion of plant genetic material and that in general the developing countries could not bear the cost of excluding zones from the process of development, and of promoting and conserving them.

41. The Commission took note of on-going international activities in ecosystem and genetic resource conservation, including data collection, storage and monitoring carried out by IUCN; activities in the conservation of wild relatives of crop species by IBPGR; and programmes on in situ conservation of forest genetic resources co-ordinated by FAO. It welcomed inforamtion on inter-agency co-operation and the co-ordination of the activities of FAO, UNEP, Unesco and IUCN through the Ecosystems Conservation Group. It stressed the need for scientific, technical and financial support for national efforts carried out under an international umbrella and requested FAO to place increased emphasis on assistance to developing countries in the formulation and execution of viable projects in in situ conservation of phytogenetic resources and in the generation of funding for such projects.

42. In conclusion, the Commission endorsed the general strategy for action at national and international levels, outlined in paragraphs 36 to 43 of document CPGR/85/5.
INTERNATIONAL INFORMATION SYSTEM ON PLANT GENETIC RESOURCES

43. In adopting Resolution 8/83 on the Undertaking, the Twenty-second Conference of FAO had stressed the importance of evaluation and documentation of plant genetic resources and had recommended that the Director-General take steps aimed at establishing an International Information System on Plant Genetic Resources, under co-ordination of FAO, including an analysis of its financial implications. In response to that recommendation, document CPGR/85/6 was submitted to the Commission for its consideration.

44. The Commission expressed its satisfaction with the assessment provided on plant genetic resources information and on the issues involved in the establishment of an international information system.

45. The Commission noted the limitations on the use of genebanks due to the lack of adequate information on accessions. It stressed the need for full data recording and availability to ensure the use of genetic resources in plant breeding.

46. The Commission therefore endorsed the proposals for actions towards establishing an International Information System on Plant Genetic Resources contained in paragraphs 58 to 77 of document CPGR/85/6.

47. The Commission stressed in particular the need to strengthen the information system in individual genebanks. This would include establishment or upgrading of internal monitoring systems for the maintenance of genetic resources, completion of at least the minimum descriptors for all material conserved, and improvement of links with plant breeders. In this context, the Commission recognized the need for greater assistance required in order to improve the performance of individual genebanks.

48. The Commission recalled with concern the lack of trained manpower and effective facilities in many developing countries, particularly in the field of plant breeding. The Commission recommended that the relative strengths and weaknesses of capabilities in developing countries in plant breeding, genetic resources and seed development should be assessed by FAO in collaboration with the countries concerned. This assessment should serve as a basis for concerted actions at national, bilateral and international levels to reduce deficiencies.

49. The Commission noted that developments in computer technology had now made software the most expensive part of any system and urged that due care be given to the choice of software systems in genebanks being appropriate to curators' needs, taking into account work already undertaken in this area.

50. The Commission recognized that crop specific data bases provided the best instrument for international harmonization of crop descriptors and to serve as a focal point for organizing further characterization and evaluation of germplasm. It recognized that it would be advantageous to national genebanks if their crop-specific data bases were gradually integrated with the large crop-specific data bases, to their mutual benefit, and simultaneously improving access to information for plant breeders everywhere. The Commission agreed that the development of crop-specific data bases of major crops as promoted by IBPGR should receive continuous support.

51. The Commission considered that the lack of evaluation data on genetic resources was the main hindrance to their wider use in plant breeding programmes. It recommended that FAO should promote, in collaboration with IBPGR, the establishment of evaluation networks, with the participation of crop-specific data bases, genebanks and relevant institutions, and mobilize additional funding sources.

52. The Commission noted the importance of the Directories to Crop Germplasm Collections published by IBPGR in English only, and urged that they should be published in other languages in order to increase their global usefulness.
53. The Commission stressed the importance of the FAO Seed Information System and recommended the speeding up of its development as an important part of an International Information System on Plant Genetic Resources.

54. In order to monitor and develop further international co-operation for information systems on plant genetic resources, the Commission agreed that an expert consultation should be convened by FAO in co-operation with IBPGR to consider follow-up measures to promote this essential service.

TRAINING ACTIVITIES AND TRAINING REQUIREMENTS IN THE FIELDS OF PLANT GENETIC RESOURCES, PLANT BREEDING AND SEED PRODUCTION

55. In its Resolution 8/83, the Twenty-second Conference of FAO urged that international co-operation be directed towards establishing or strengthening the capabilities of developing countries on a national or sub-regional basis, with the aim of enabling all countries to make full use of plant genetic resources for the benefit of their agricultural development. As a basis for its discussion, the Commission examined document CPGR/85/7 dealing with the intensification of training in plant genetic resources activities, including plant survey and identification, plant breeding, seed multiplication and distribution.

56. The Commission agreed on the need to intensify training in these fields in order to raise overall agricultural production and productivity, and urged that governments increase their efforts to strengthen their national training programmes at all levels, including farmers. The Commission recommended that manpower assessments be undertaken at national level to determine the needs for the development of efficient systems of crop research and plant breeding, comprising a wide range of activities from the collection and conservation of genetic resources both in situ and ex situ, to plant breeding and seed development and production. It requested FAO to assist in such assessment when asked to do so.

57. The Commission strongly emphasized the need for training at different levels, such as professional, specialized and in-service training. It also stressed the need to enhance awareness of the importance of plant genetic resources, improved varieties and good quality seed among administrators, extension workers, credit agents and others through "appreciation" training. The Commission also noted the importance of training of trainers, inculcating appropriate attitudes and approaches among such trainers so as to enhance their capacity to provide effective training to technical personnel, extension workers and farmers.

58. The Commission emphasized that the collection and conservation of plant genetic resources was not an end in itself, but an essential link in the chain, including the use of germplasm through plant breeding, and the utilization of seed and planting material of improved varieties, leading to increased crop production and improvements in the standard of living.

59. The Commission recommended that due consideration should be given to management training, which was recognized as very important in the field of plant genetic resources. It was recognized that a communication gap was not uncommon between plant breeders and plant genetic resources personnel. The Commission also stressed the need for training to improve programmes on genetic resources evaluation and information.

60. The Commission endorsed the action proposals in chapter IV of document CPGR/85/7, concerning the importance of training in seed technology, and manpower planning in seed production. It also stressed that FAO should continue to give strong emphasis to manpower training in the fields of plant breeding and seed production and, in collaboration with IBPGR, in plant genetic resources.
61. The Commission urged FAO, IARCs and donor agencies to assist former trainees in establishing contacts with other institutions involved in their subject matter field.

62. The Commission appreciated the interest expressed by some donor countries in financially and otherwise assisting the implementation of practical training in the fields of plant genetic resources, plant breeding and seed production. It urged that donors also consider facilitating academic and postGraduate training in these fields. The Commission recommended that FAO, IBPGR and other IARCs, and other institutions increase all forms of support to relevant training programmes.

63. The Commission urged FAO to assist in the formulation of viable seed programmes and projects, and to promote breeding and variety evaluation work, especially on local varieties. Strengthening the training activities in such aspects could be expected to contribute substantially to food sufficiency programmes, in particular in Africa.

FUTURE WORK PROGRAMME OF THE COMMISSION

Scope of the Commission

64. The Commission discussed this item on the basis of document CPGR/85/8. The document elaborated the main functions of the Commission according to its terms of reference, as established in Council Resolution 1/85:

"(a) to monitor the operation of the arrangements referred to in Article 7 of 'The International Undertaking on Plant Genetic Resources', hereinafter referred to as 'the Undertaking';

(b) to recommend measures that are necessary or desirable in order to ensure the comprehensiveness of the global system and the efficiency of its operation in line with 'the Undertaking'; and in particular,

(c) to review all matters relating to the policy, programmes and activities of FAO in the field of plant genetic resources, and to give advice to the Committee on Agriculture or, where appropriate, to the Committee on Forestry."

65. The Commission agreed that its main purpose was to ensure the development, strengthening and monitoring of a global system for plant genetic resources under the auspices or jurisdiction of FAO in order to preserve the heritage of mankind and that this responsibility involved many different functions including promotion, research, information and training.

66. The Commission agreed that the special relationship of FAO and the IBPGR provided a basis for the Commission to consider the activities of IBPGR in relation to FAO's responsibilities and activities. In this regard, the Commission noted that the relationship between FAO and the IBPGR had been established in a letter of agreement signed in 1974 and implicitly renewed since then. The Commission recommended that the agreement be reviewed by the parties concerned and, if necessary, appropriate changes be incorporated to take fully into account the implementation of the Undertaking and the establishment of the Commission. In this process, the Commission urged that FAO and the bodies involved give particular attention to:

(i) the formal and working relationships between FAO and IBPGR and the role which IBPGR could play in implementing the Undertaking and the manner in which any duplication and overlap with FAO's activities could be avoided;

(ii) ascertaining the right of ownership of plant genetic resources held by the organizations and institutions in the IBPGR network.
67. Some members expressed the view that developing countries themselves should have the possibility of proposing the Board members of the IBPGR who come from these countries.

68. The Commission agreed that a close co-ordination with IBPGR was essential to the fulfilment of the Commission's mandate and recommended that appropriate means be developed for communication between the two bodies so that each one of them be kept informed of the activities of the other.

69. The Commission agreed that one of the principal areas to which it should give attention was assuring that developing countries benefit fully from their plant genetic resources. The Commission noted that in situ conservation of plant genetic resources had received, to date, scarce attention. The Commission agreed that its terms of reference included both ex situ collections and in situ collections, and that in its work due regard must be given to both of these areas.

70. Concerning ex situ conservation, the Commission recommended that additional attention be given to improving access to and utilization of these resources by developing countries, including appropriate legal considerations. Concerning in situ conservation, the Commission recommended that the FAO Secretariat prepare, for submission to the Commission's next session, a proposal for setting up an international network of protected areas. The proposal should include information on both the logistics for setting up the network and the resources required.

71. The Commission noted that in the development and conservation of plant genetic resources, benefits were mainly derived in the medium and long term, which for developing countries with immediate food production needs might mean that resources would not be available for undertaking effective programmes for the conservation of plant genetic resources. The Commission therefore urged those countries which could do so to make additional funds available to support activities on plant genetic resources, and recommended in compliance with Article 8 of the Undertaking that consideration be given to establishing an international fund for this purpose. Some countries stated that they had reservations in principle to the establishment of a new fund.

72. The Commission agreed that in the development of an international co-ordinated network on plant genetic resources, as specified in Article 7.1 (a) of the Undertaking, the legitimate interests of plant breeders should be taken into account.

73. The Commission agreed that fundamental research to improve methods for collecting and conserving plant genetic resources could have very positive benefits, both in reducing the quantity of material maintained and the costs involved. The Commission therefore recommended that additional attention and resources be devoted to fundamental research on genetic diversity and noted the role of IBPGR in co-ordinating these efforts, without neglecting the continuous need for collection.

74. The Commission agreed that the review of overall progress towards achieving the objectives of the Undertaking should be on the agenda for its next and subsequent sessions. It further agreed that a monitoring report based upon the information provided to the Director-General by the governments and institutions in accordance with Article 11 of the Undertaking should serve as the basis for its discussion. In preparing the report, the Commission urged the Secretariat also to utilize as far as possible the annual or other regular reports issued by IBPGR, the FAO Panel of Experts on Forest Genetic Resources and other international and national bodies active in the field of genetic resources, since this would reduce the need for countries to provide the same or similar information to several different bodies. The Commission agreed that collected information could also be utilized to prepare a publication intended for general distribution.
75. The Commission, noting that one of its main functions was advising on FAO's own activities in the field of plant genetic resources, decided to undertake this function beginning with its second session. The Commission endorsed the proposal that it review the relevant parts of the Major Programme 2.1: Agriculture related to plant genetic resources, crop improvement and seed research, and the activities in forest genetic resources under Sub-Programme 2.3.1.2: Tree Improvement and Plantations, and recommended that the relevant sections of its reports should be submitted to the Committee on Agriculture and the Committee on Forestry for their information and consideration.

Establishment of a Working Group

76. The Commission, noting that its next session would be held in approximately two years time, considered the question whether it would be desirable to devise a mechanism whereby, in the meantime, it could keep abreast with developments and provide guidance relating to the implementation of its programme of work.

77. After exploring several possible solutions, most of the members concluded that the Commission's aim could best be achieved by establishing a subsidiary body as envisaged in paragraph 4 of its Statutes. Some members questioned the proposal for the establishment of a working group considering in particular that such action was neither appropriate nor necessary at this time.

78. It was decided that a Working Group of the Commission on Plant Genetic Resources (hereinafter referred to as "the Working Group") be established with terms of reference as follows:

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to consider the progress made in implementing the Commission's programme of work and any other matters referred to it by the Commission.

79. As regards the composition of the Working Group, the Commission decided that it should be made up of 23 members of the Commission with the following regional distribution:

4 representatives from Asia
4 representatives from Latin America and the Caribbean
5 representatives from Africa
3 representatives from Near East
5 representatives from Europe
1 representative from Southwest Pacific
1 representative from North America

80. The Commission further decided that its Chairman should chair the Working Group and that he should select the other members after consultation with the regional groups concerned.

Proposals for the Second Session of the Commission

81. The Commission noted that the Director-General, in consultation with the Chairman of the Commission, would prepare a provisional agenda for its Second Session. The Commission should take into account the recommendations of the Working Group at its next session.
82. The Commission recommended that the four topics proposed in paragraph 17 of document CPGR/85/8 should be included in the provisional agenda:

- Monitoring of the Undertaking
- Review of FAO activities in crop and plant genetic resources, including crop improvement and seed development
- Assessment of capabilities of developing countries in genetic resources, plant breeding and seed development
- Legislation on seeds and plant breeding in relation to the international exchange of plant genetic resources.

83. In addition, the Commission suggested the following topics for consideration by the Director-General:

- Report(s) of the working group of the Commission
- Assessment of progress and strategy report on in situ conservation of both woody plants and other crops
- Information systems related to in situ and ex situ conservation
- Training needs and opportunities at the technical and professional level in genetic resources activities and plant breeding
- Basic research on genetic diversity
- Current legal situation related to the development of an international network of ex situ base collections
- Assessment of current coverage of base collections in the world with regard to crops of interest to developing countries.

OTHER BUSINESS

International Year of the Forest

84. The Commission heard a statement by the Director, FAO Forest Resources Division, which is attached as Appendix E.

Date and Place of the Next Session

85. The Commission recommended that the date and place of the second session be determined by the Director-General in consultation with the Chairman. It further recommended that the session be scheduled before the sessions of the Committee on Agriculture and the Committee on Forestry, to enable them to consider the recommendations of the Commission.
AGENDA

1. Election of Chairman and Vice-Chairmen
2. Adoption of agenda
3. Country and international institutions' response to Resolutions 8/83 and 1/85
4. Base collections of plant genetic resources
5. Status of in situ conservation
6. International information system on plant genetic resources
7. Training activities and training requirements in the fields of plant genetic resources, plant breeding and seed production
8. Future work programme of the Commission
9. Other business
10. Date and place of next session
11. Adoption of the report

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<td>Director, Germplasm Storage Research Office of the Crop Germplasm Resources Institute, The Chinese Academy of Agricultural Sciences</td>
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<td>Ivory Coast</td>
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VIET NAM

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INTERNATIONAL YEAR OF THE FOREST

Erosion of wild gene pools of useful plant species and their relatives has been one of the main issues discussed during this first session of the Commission, especially during the debate on in situ conservation of plant genetic resources. This situation is created, to a large extent, by the destruction and degradation of forest ecosystems throughout the world. This is particularly serious in the humid and dry tropics where every year more than 11 million hectares of closed and open forests are cleared to give way to other uses of the land and where, in addition, vast expanses of natural forest land are being subject to over-exploitation for timber and fuelwood, overgrazing and repeated fires. The situation has become critical also in many temperate zones where atmospheric pollution ("acid rain"), combined with pests, diseases and fires are taking their toll of large forest tracts.

Convinced that forest conservation has become one of the greatest environmental problems, the Council of FAO, during its 86th Session in November 1984, requested all member nations to give special recognition to the forest during 1985. It declared 1985 the International Year of the Forest and requested the Director-General to notify it to member nations and to seek, within the limits of available funds during this year, to respond to requests from them for assistance in their separate and collective efforts to have the forest duly recognized as a global concern during 1985, in pursuance of the International Year.

These efforts have been initiated in particular to increase awareness at all levels of national and international communities of the importance of conservation and sound development of forest lands.

The concurrence of these two events in this year - the declaration of the international effort and the holding of the First Session of the Commission on Plant Genetic Resources - is more than a mere coincidence; it illustrates forcefully the fact that it is now recognized world-wide that conservation and development must be reconciled if the wellbeing of present and future generations is to be safeguarded.