

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

**REPORT OF THE SUB-REGIONAL
PREPARATORY MEETING FOR
WEST AND CENTRAL AFRICA**

**Dakar, Senegal
27-30 November 1995**



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INTRODUCTION

1. The Sub-Regional Meeting for Western and Central Africa, preparatory to the International Technical Conference on Plant Genetic Resources, was held in Dakar, Senegal, 27-30 November 1995. It was organized by FAO with support from the International Plant Genetic Resources Institute (IPGRI), and the Institute for Agricultural Research of Senegal (ISRA). Representatives from Benin, Burkina Faso, Cameroon, Central African Republic, Congo, Côte d'Ivoire, Gabon, Gambia, Ghana, Guinea, Equatorial Guinea, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Togo, and Zaire, as well as observers from International Agricultural Research Centres (IARCs), regional research networks, and non-governmental organizations (NGOs) attended.

OPENING CEREMONY

2. Dr Jacques Faye, Director General of ISRA welcomed participants to the meeting. IPGRI's Regional Director for Sub-Saharan Africa, Dr Frank Attere, then addressed the meeting on behalf of the Director General, Dr Geoff Hawtin. He outlined IPGRI's role in the preparatory process for the International Technical Conference and underlined the importance of strengthening sub-regional coordination. Dr S.N. Kassapu, representing FAO's Regional Office for Africa, addressed the meeting on behalf of the Director-General, Dr Jacques Diouf. He thanked the Government of Senegal for hosting and organizing the meeting. Underlining the importance of plant genetic resources as the basis for food security, he emphasized the importance FAO gave to the International Technical Conference which would also provide inputs to the World Food Summit.

3. In his address, Dr Djibril Sene, M.P., Chairman of the Commission for Rural Development of the National Assembly of Senegal, briefly described the evolution of international activities and discussions concerning plant genetic resources, highlighting the role played by NGOs in raising awareness on some critical issues such as access to genetic resources and sharing of benefits.

4. Mr M'Bengue, Directeur de Cabinet, then delivered the opening address of the Minister of State, Minister for Agriculture of Senegal, H.E. Robert Sagna. He drew attention to the richness of plant genetic diversity in the sub-region, both in the Sahelian-Soudanian zone and in the



humid Guineo-Congolese zone. He emphasized the importance of coordination at the national level in order to guarantee conservation, develop appropriate policies and raise public awareness. He expressed the hope that particular attention be given to the realization of Farmers' Rights.

PROCEDURAL MATTERS

5. For the election of the officers of the meeting, Mr Andre Matton, FAO Representative in Senegal, presided. Following nomination by Côte d'Ivoire, the following officers were elected by acclamation:

Chairman:	Dr Djibril Sene (Senegal), M.P., President of the Commission on Rural Development of the National Assembly
Vice-Chairmen:	Dr Jean Blaise Nyobe (Cameroon), Director of Research and Planning, Ministry for Scientific Research and Technology
and:	Prof. C.P.E. Omaliko (Nigeria), Director of Agriculture and Natural Sciences Dept, Federal Ministry of Science and Technology
Rapporteur:	Dr Roger Zangre (Burkina Faso), Head of Research, National Centre for Scientific Research and Technology.

6. The programme of work of the meeting was adopted. Two sub-regional working groups were established for consideration of Country Reports and Sub-regional Synthesis Reports: one for Central Africa comprising Central African Republic, Cameroon, Congo, Equatorial Guinea, Gabon, and Zaire, and one for Western Africa comprising Benin, Burkina-Faso, Côte d'Ivoire, Gabon, Gambia, Ghana, Guinea, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, and Togo. In addition, two thematic working groups were established to formulate proposals for the Global Plan of Action, one concerning policy and institutional aspects, the other concerning technical aspects.



PRESENTATIONS

Introduction to the International Technical Conference on Plant Genetic Resources, Its Preparatory Process and Expected Outputs

7. A presentation was made by Mr H. David Cooper of the FAO Secretariat, outlining the preparatory process and the expected outputs of the International Technical Conference on Plant Genetic Resources which will take place in Leipzig, Germany, 17 - 23 June 1996. The Conference is expected to adopt two documents: the first Report on the State of the World's Plant Genetic Resources, and a costed Global Plan of Action for the conservation and sustainable utilization of plant genetic resources. The preparation of these documents had been requested by the UN Conference on Environment and Development in *Agenda 21* and through the Nairobi Final Act by which the text of the Convention on Biological Diversity was adopted. They will constitute two new elements of the Global System on Plant Genetic Resources, and contribute to the implementation of the Convention on Biological Diversity.

8. A preparatory process had been put in place by FAO with the assistance of IPGRI, providing several opportunities for inputs by countries:

- the preparation of country reports on the state of conservation and utilization activities, identifying gaps and needs;
- sub-regional meetings to prepare sub-regional synthesis reports and formulate proposals for the Global Plan of Action;
- the intergovernmental Commission on Plant Genetic Resources which provides policy guidance to the process and which will review drafts of the two documents at its meeting in April 1996, and
- the International Technical Conference itself, where it is expected that policy makers and technical experts from each country will finalize and adopt the two documents.

Mr Cooper briefly described some of the recommendations made by earlier sub-regional meetings in Africa.

Presentation of CORAF

9. The Executive Secretary of the Conference of Directors of Agricultural Research of Western and Central Africa (CORAF), Mr Niaga M'Baye, described the objectives and activities of this network which was created in



order to strengthen national agricultural research systems (NARS) and to promote cooperation between them. Originally an organization for francophone Africa, CORAF has recently been restructured, and is now open to all countries of the sub-region. Through CORAF, the NARS have identified as one of four priority areas the development of technologies to further increase animal, plant and fish production in the region. Plant and animal genetic resources management is one of the research sectors of this priority area, in cooperation with IPGRI and other IARCs.

Presentation of Country Reports and Sub-regional Synthesis Reports

10. In the sub-regional working groups, country representatives presented brief overviews of their Country Report regarding the state of genetic resources conservation and utilization, and major gaps and needs. Summaries of Country Reports are provided in Annexes 1 & 2¹. Full Country Reports will be made available at the International Technical Conference in Leipzig.

11. The draft Sub-regional Synthesis Report for Central Africa was presented by Dr Amadou Beye to the sub regional working group for Central Africa. The draft Sub-regional Synthesis Report for Western Africa was presented by Dr Ankon Goli to the sub-regional working group for Western Africa. The two reports were discussed in their respective groups, and after appropriate modifications, were endorsed as useful inputs for the preparation of the Report on the State of the World's Plant Genetic Resources (Annexes 1 & 2).

Presentation by Non-governmental Organizations

12. Ms Jacqueline Nkoyo, of the Central African Federation of Environment and Development NGOs (CONGAC), presented a paper on the role of the independent sector in the conservation and sustainable utilization of plant genetic resources in Western and Central Africa. The paper had been prepared by CONGAC, ENDA Tiers-Monde, Solagral and several Senegalese NGOs which met in Dakar prior to the sub-regional meeting. The paper outlined the role of NGOs in working with local communities, especially in the area of *in situ* conservation and crop improvement, and made some proposals for the Global Plan of Action.

¹ Country Reports had been received previously from Benin, Burkina-Faso, Cameroon, Cape Verde, Central African Republic, Congo, Côte d'Ivoire, Gabon, Gambia, Ghana, Guinea, Equatorial Guinea, Niger, Nigeria, Senegal, Sierra Leone, Togo, and Zaire.



CONCLUSIONS OF THE MEETING AND RECOMMENDATIONS FOR THE GLOBAL PLAN OF ACTION

13. On the basis of discussions in the thematic working groups, the meeting agreed the observations and recommendations in the following paragraphs.

14. The following proposals were identified as priority areas:

- (1) Establishment of effective national committees.
- (2) Creation of a sub-regional gene bank.
- (3) Establishment of programmes for ecosystem management.
- (4) Strengthening of legislation.
- (5) Recognition of Farmers' Rights.
- (6) Development of neglected and under-utilized crops.

Policy and Institutional Aspects

Strengthening national programmes

15. National programmes for plant genetic resource conservation and utilization should be established or strengthened within the framework of national agricultural and forestry research systems. Full advantage should be realized from the momentum created by the preparatory process for the International Technical Conference.

16. National committees should be established bringing together all relevant partners and actors in plant genetic resource management, including representatives of relevant ministries, research institutes, universities, NGOs and farmers. Where necessary, support should be provided by international organizations and other interested sources for countries to hold national workshops to establish and/or orientate national programmes.

17. It is important to ensure the sustainability of national programmes. In this respect the following propositions were made:

- funding for recurrent costs of maintaining the basic components of a national programme should be provided from national sources;
- decision makers should therefore be made aware of the importance of plant genetic resource conservation and use, for agricultural development and food security;



- national committees and other programme structures should not be unduly large, thereby avoiding unnecessary burdens on national resources.

18. National programmes should identify the national needs for plant genetic resources and develop strategies for meeting these needs. Activities would include:

- to coordinate prospecting, collection, preservation and evaluation activities of all plant material of economic and/or social interest;
- to promote research into plant genetic resources;
- develop national capabilities;
- to inform and create awareness amongst decision-makers and the population about the importance of conserving plant genetic resources;
- to develop collaboration between national and international structures working in the field of plant genetic resources.

Strengthening national legislation

19. Whilst most countries have phytosanitary regulations, other laws concerning plant genetic resources are often non-existent, poorly understood or inadequately implemented. There is a need to survey and assess existing laws, and to adapt them, or to develop new ones, in line with the real needs of the countries. Such legislation should respect the interests of farmers' local communities.

20. There is a need to put in place legislation regulating the movement of genetic resources, in line with the Convention on Biological Diversity and the needs of the countries. (The International Code of Conduct for Plant Germplasm Collecting and Transfer could be used as a model for national legislation.)

21. International legal assistance is requested in order to draft suitable intellectual property legislation for plant varieties in line with international agreements and national needs. *Sui generis* legislation should be developed which allows countries to make more profitable use of their plant biodiversity, encourages agricultural research, and respects the interests of farmers.

Enhancement of training

22. Training of researchers, technicians and specialists in plant genetic resources is considered a main priority by all the countries of the sub region. Very few people in the region have been able to benefit from training in the field of plant genetic resources.



23. Emphasis should be placed on strengthening training in the sub-region itself, in order to reduce costs, and to promote universities and other local teaching institutions, both at national and regional levels. This would allow an increased number of participants to be trained and thereby improve the chances of keeping trained staff in the national research systems.

24. National and regional institutions should be surveyed to identify those with a good capacity for training, or with a good potential to increase their capacity.

25. A range of training approaches are required:

- modules on plant genetic resources in University courses on agriculture, forestry and botany at a national level;
- advanced and specialized courses, at a regional level. There is a particular need to train specialists in systematics/taxonomy, population genetics, ecology, and ethnobotany;
- short term courses in practical techniques, at regional and national levels;
- training for farmers (NGOs may have a comparative advantage at this level).

26. Special emphasis should be placed on on-site training for women, since they play a crucial role in preserving traditions and conserving rare species. Training of trainers and on-site technicians is equally important, to encourage participation by local populations.

Sub-regional networks: administrative aspects

27. The countries of Western and Central Africa share many crops and, therefore, national programmes often have similar objectives. It was recognized that stronger mechanisms of cooperation are required to strengthen sub-regional collaboration and avoid unnecessary duplication, as well as to strengthen national programmes. It was agreed, therefore, that a sub-regional network be established for Western and Central Africa, within the framework of existing organizations. A sub-regional co-ordination body could be made up of national co-ordinators and other resource persons.

28. It was suggested that it would be helpful to establish an IPGRI presence in Central Africa due to its unique complement of plant genetic resources.



29. The important role played by existing organizations was recognized. These include, in particular:

- political and economic intergovernmental bodies such as the Economic Community of Western African States (ECOWAS) and the Economic Community for Central Africa (CEAC);
- technical intergovernmental bodies such as the Inter-State Committee to combat desertification (CILSS) for the sahelian countries;
- the International Agricultural Research Centres located in the region, including ICRISAT, IITA and WARDA;
- the network for coordination of agricultural research in West and Central Africa (CORAF);
- the Conference of Ministers of Agriculture of West and Central Africa.

30. It was further recognized that different existing organizations, of specific nature, might be required to provide the framework for collaboration at the political and technical levels. The importance of strong coordination at the national level was reaffirmed as the basis for sub-regional collaboration.

31. It was suggested that an *ad hoc* Task Force be established to carry forward the recommendations of the meeting. FAO and IPGRI were invited to facilitate the process.

Sub-regional networks: technical aspects

32. The development of efficient systems of documentation and communication was identified as a priority function for a sub-regional network. In particular the need for databases of material available *in situ* and *ex situ*, for a sub-regional newsletter, and for translation of information between the languages of the region were highlighted.

Sub-regional collaboration *ex situ* collection

33. The need for collaboration in *ex situ* conservation at the sub-regional level was recognized. Such collaboration should:

- ensure cost-effective conservation by sharing the burden of long term *ex situ* conservation;
- facilitate exchange, and promote evaluation and utilization of conserved material.

34. It was suggested that national genebanks give priority to active or working collections, whilst long term conservation in base collections might be more effectively carried out at the sub-regional level, through one or other of the following models:



- a central sub-regional base collection, which would also support national programmes (e.g. the SADC genebank in Southern Africa);
- use of strong existing national genebanks to hold material on behalf of other countries of the sub-region (with appropriate legal arrangements where necessary) (eg. role of Ethiopian and Kenyan genebanks in East Africa);
- a network of national genebanks, each one specializing in the conservation of a particular species or group of species according to mandates agreed by the sub-region (a system like this was proposed for North Africa).

35. The group noted that legal agreements might be developed to ensure that countries' sovereign rights over genetic resources are respected, and the material is made readily available to them, when their collections are physically located outside of the country of the origin.

International network of *ex situ* collections

36. It was noted that an International Network of *ex situ* collections had been established in the context of the FAO Global System for plant genetic resources, and that most of the collections of the CGIAR have been designated as part of this network. Several countries have also indicated their willingness to join the network.

37. The Group agreed that:

- countries of Western and Central Africa should participate in the international network;
- the interests of different countries in the international network should be represented through the intergovernmental Commission on Plant Genetic Resources;
- that international funding should be available to enable countries to meet the conditions for designated germplasm, i.e. adequate storage conditions; safety duplication and good documentation, and
- that the international network should facilitate both access to plant genetic resources and the sharing of benefits derived from their utilization.

38. It was noted that existing material in the International Network of *ex situ* collections is available without restriction, and that no intellectual property rights can be taken out on this material. However, the availability of material collected after the entry into force of the Convention on Biological Diversity would be subject to the agreement of the country of origin. The importance of maintaining access to genetic materials was emphasized, and the hope was expressed that an agreement on access could be developed, in the



context of the revision of the International Undertaking, which facilitated access whilst providing mechanisms for the sharing of benefits in those cases where profits are derived from the exploitation of the resources.

Recognition of farmers' rights

39. Rural communities should benefit from the realization of Farmers' Rights. The possibility of developing legal mechanisms to protect the varieties and knowledge of farmers and rural communities should be explored. There is also a need to develop farmer participation in plant genetic resource management through better involvement of local populations in designing *in situ* conservation strategies.

Funding

40. Whilst recognizing the need for international funding of conservation and utilization of plant genetic resources in developing countries, national funding is also considered essential.

Technical Aspects

Improving utilization of conserved plant genetic resources

41. Genetic resources can be utilized in various ways:

- direct use of landraces, without improvement;
- improvement of landraces through breeding;
- use of introduced varieties, improved in breeding programmes;
- use of wild species.

42. However, there are a number of constraints to the greater utilization of conserved material. Some of these relate to poor capacity (e.g. lack of finance, insufficient trained personnel, unsatisfactory management structures, ineffective collaboration between genebanks and potential users). Others are due to technical problems related to lack of documentation and evaluation of collections, difficulties associated with the variability of the material, size of collections, or difficulties in characterization.



43. A number of institutional measures were proposed to increase utilization:

- sensitization of decision makers (community-based demonstration plots or farms might be employed to sensitize policy makers, breeders and the general public as to the importance of PGR conservation/use);
- closer collaboration/coordination between plant genetic resource programmes on the one hand and breeding/research programmes on the other;
- better training and education;
- better communication at the sub-regional level;
- studies of the ways that local people conserve and use plant genetic resources;
- easier movement of germplasm and information.

44. Additionally, some ways in which access to conserved germplasm might be made easier were proposed:

- improving information on existing collections through better evaluation data, as well as through inventories of *in situ* protected areas;
- development of descriptor lists for crops of importance in the region and identification of essential descriptors in existing lists;
- use of core collections to provide smaller, representative, sub-sets of large collections thereby reducing the difficulty, time and cost involved in evaluating them.

45. It may also be necessary to rethink conventional breeding and conservation strategies, and to develop more farmer-participatory approaches, especially for the improvement of landraces. Such approaches might speed up the process of making new varieties available. In this regard national crop development initiatives along the lines of the Community Biodiversity Development and Conservation Programme (CBDC Programme) should be encouraged.

Ways and means to help farmers in times of conflict

46. Farmers often utilize a wide range of diverse varieties in their traditional farming systems which are well adapted to the local conditions. Occasionally, however, in times of conflict for example, farmers may be forced to abandon their farms and these varieties may be lost. Rehabilitation programmes should include mechanisms to ensure that the farmers' locally-adapted varieties can be re-supplied to the farmers. A number of activities



could be undertaken to contribute to such a genetic resources rehabilitation effort:

- maintenance of *ex situ* collections of local varieties in national, regional and international genebanks;
- complementary conservation strategies, employing both *in situ* and *ex situ* methods for greater security;
- establishment of an early warning system of national coordinators;
- launching of conservation programmes in neighbouring countries in order to increase the number of potential partners.

Developing under-utilized species

47. The region perhaps has a comparative advantage in its indigenous crops, but little attention is given to these and they remain under researched. Paradoxically these "neglected" crops may be "over exploited" due to a lack of sustainable management plans under high population pressure. A list of neglected species should be developed.

48. Programmes for the promotion of under-utilized species should be developed, including:

- collaboration with local populations for better knowledge of underutilized species and better understanding of their sustainable management;
- research for sustainable management of underutilized species;
- propagation or domestication, to avoid over-exploitation of wild plants, and for income generation;
- use of botanical gardens and genebanks for conservation;
- promotion of information exchange and publications;
- improving post-harvest processing to increase consumption;
- development of markets for products from under-utilized species in order to generate income and provide incentives for conservation.

Promoting *in situ* conservation and management of genetic resources

49. A number of approaches were identified to promote *in situ* conservation:

- promotion of home gardens;
- use of sacred forests, and re-establishment of traditional management techniques for sacred forests where appropriate;



- study of selection criteria and methods used by farmers in order to be able to provide them with varieties more suited to their needs;
- strengthening of conservation programmes for wild species.

Integrated ecosystem management and environmental impact assessment

50. Recognizing the need to reconcile conservation with the needs of the local populations for food and energy, an integrated approach to the management of ecosystems, in particular forests and pastures, is required, based on a participatory approach with concerned communities. Exchange of experiences in ecosystem management should be promoted, including through South-South collaboration.

51. Environmental impact assessments of proposals for development projects should include an assessment of the effects of such projects on plant genetic resources.

52. The sub-region has a rich diversity of plants, many of which are threatened, and which should be collected and conserved as a matter of urgency in collaboration with national institutions. These plants include food, forage, medicinal and forestry species. However, further research is necessary to elaborate methodologies for *in situ* conservation.

CLOSING REMARKS

53. Dr Djibril Sene, Chairman, summarized the proceedings of the meeting, highlighting the recommendations made concerning the need for strong coordination at the national and sub-regional levels. In their closing remarks, Drs Frank Attere and David Cooper, on behalf of IPGRI and FAO respectively, thanked the Government of Senegal for hosting the meeting and, in particular, all those who had worked to make it successful. They congratulated the Chairman, the Vice-Chairmen, the Rapporteur, and all the participants of the meeting, on preparing useful contributions for the Report on the State of the World's Plant Genetic Resources, and the Global Plan of Action. Mr M'Bengue officially closed the meeting on behalf of the Minister of State, Minister of Agriculture of Senegal, H.E. Robert Sagna.