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COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

Intergovernmental Technical Working Group on Forest Genetic Resources

Second Session

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REPORTS OF REGIONAL CONSULTATIONS TO IDENTIFY NEEDS AND PRIORITIES FOR ACTION FOR THE FOLLOW-UP TO *THE STATE OF THE WORLD'S FOREST GENETIC RESOURCES*

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Forestry Department

Food and Agriculture Organization of the United Nations

Reports of Regional Consultations to Identify Needs and Priorities for Action for the Follow-up to the State of the World's Forest Genetic Resources

Organized by:
FAO

With collaboration from;

Asia Pacific Association of Forestry Research Institutions (APAFRI)
Bioversity International
Comité des forêts de l'Afrique Centrale (COMIFAC)
Comité permanent inter-états de lutte contre la sécheresse dans le sahel (CILSS).
Kenyan Forest Research Institute (KEFRI)
Latin American Forest Genetic Resources Network (LAFORGEN)
National Tree Seed Centre of Burkina Faso (CNSF)
Royal Botanical, Kew
Secretariat of the Pacific Community (SPC)
State Committee for Environment Protection of the Republic of Tajikistan
The African Union Commission
The Organization for Economic Co-operation and Development (OECD) Secretariat
Wallonie Bruxel International

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INTRODUCTION

The preparation of the first Report on the State of World Forest Genetic Resources (SOW-FGR) to be submitted to the Commission on Genetic Resources for Food and Agriculture (CGRFA) at its Fourteenth Regular Session in April 2013 involved regional consultations with FAO member counties and main stakeholders. To assist countries in this process, FAO held the following workshops in eight sub-regions across the globe in collaboration with partner institutions:

1. **North Africa and the Near East**, organized by FAO in Tabarka, Tunisia, 16-18 July 2012.
2. **Western Africa,** organized in Ouagadougou, Burkina Faso, 2-6 July 2012,
3. **Central Asia** organized in Dushanbe, Tajikistan, 27-29 August 2012,
4. **Pacific**, organized in Nadi, Fiji, 4-6 September 2012,
5. **Central Africa,** held in Libreville, Gabon, 7-8 September 2012,
6. **Asia**, held in Kuala Lumpur, Malaysia, 12-14 September 2012,
7. **Eastern and Southern Africa,** held in Nairobi, Kenya, 17-19 September 2012,
8. **Latin America,** held in Santiago, Chile, 15-17 October 2012,

The objectives of the workshops were:

1) To Identify and describe the regional or sub-regional status of FGR management and the environment (ecological, social, economic) affecting the status.

2) To identify the regional needs and priorities for actions.

The workshops succeeded in bringing together National Focal Points for Forest Genetic Resources, partner institutions and other main parties in the forest genetics constituency, to share findings of country reports, discuss regional syntheses and adopt recommendations on needs and priorities for actions. This approach allowed countries to become fully informed of the scope and importance of SOW-FGR knowledge-sharing and information-gathering exercises and to recognize that such initiatives will help ensure the sustainable use and management of their forest genetic capital.

All workshops allowed National Focal Points to share findings and recommendations of their country reports for the SoW-FGR and were able to identify the achievements, constraints, gaps and needs in relation to existing knowledge in forest genetic resources, the state of forest genetic resources conservation, management and use, and the state of institutions, research, capacity building, policies and human resources, for the regions.

Information on the different regional consultation workshops can be found at http://www.fao.org/forestry/fgr/81076/en/

This document contains the reports of the regional consultations on forest genetic resources held by FAO in the course of the preparation of *The State of the World's Forest Genetic Resources*. The reports are provided in the language in which they were received

Forestry Department

Food and Agriculture Organization of the United Nations

Forest Genetic Resources Working Papers

Regional Consultation Workshop Report on the State of the World Forest Genetic Resources for ***Eastern and Southern Africa***

Nairobi, Kenya

Prepared by FAO in collaboration with KEFRI

October 2012

Forest Assessment, Management and Conservation Division FAO, Rome, Italy
Forestry Department

Working Document FGR/xxx

1.0 Summary

The regional consultation on the State of Forest Genetic Resources for East and Southern Africa held on 17-19th September 2012 in Nairobi, Kenya brought together National Focal points for Forest Genetic resources (FGR), to share findings of country reports on FGR and identify regional needs and priorities for actions. Representatives from twelve countries (Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Seychelles, South Africa, Sudan, Swaziland, Tanzania, Zambia Zimbabwe) and FAO officers in Kenya and Somalia participated.

Country presentations were followed with group discussions, which resulted in recommendations on needs and priorities for East and Southern Africa respectively. At the end of the workshop, all participants:

i. Acknowledged the need and urgency to conserve Forest Genetic Resources in the region and commended FAO for the progress in promoting conservation of these resources.
ii. Indicated that the national reporting process was very important exercises for all the countries, for identifying areas that need action in FGR.
iii. Commended the process of identifying regional needs and priorities through the regional workshop.
iv. Established that lack of funds was the major challenge in the national reporting exercise which led to inadequate consultations and poor motivation.
v. Identified major constraints and needs and priorities in state of knowledge, conservation and management, research and capacity building, policy and legislation.
vi. Named regional Networks that could be beneficial to FGR activities.
vii. Listed species that are a priority for action.
viii. Agreed that the contribution of FAO and other regional and international partners is anticipated as a major stride in promoting conservation of these FGR.

2.0 Day 1: Opening Session and Key Speeches

Mr. Edward Kilawe Regional Forestry Officer for East Africa, as the workshop facilitator, first welcomed the participants on behalf of the FAO representative in Kenya and highlighted the importance of the process of the preparation of the SOW-FGR to support forestry programmes and policies at national and regional level. He communicated the objective of the workshop which was to share the findings and allow for identification of needs and priorities for action in Forest Genetic Resources in East and Southern Africa. He recognized the contribution of the government ok Kenya

and KEFRI towards the Workshop and also expressed FAO appreciation to the governments of the countries that had submitted their reports.

Dr Ben Chikamai, director of KEFRI acknowledged the importance of the existing collaboration between KEFRI and FAO and described the history of various activities between FAO and KEFRI including the different regional workshops on FGR. Before declaring the workshop open, he emphasized the importance of the first Report on the State of the World Forest Genetic Resources and the involvement in the regional consultation for East and Southern Africa to identify regional needs and priorities.

Mr. Albert Nikiema thanked all countries that had submitted their reports despite lack of financial support and introduced the objective of the workshop which he rephrased as *putting all the national reports in a regional context*, emphasizing the most important aspect as identifying needs and priorities, gaps and all the issues that need discussion. Albert commended the different forestry specializations of the participants which he said are a knowledge asset to the group.

Mr. Bernard Kigomo emphasized that countries should own all the needs and priorities. He also reiterated the history of FGR activities from the process of formulating the guidelines. He stressed the importance of networking and creation of forums mentioning that funding can also be secured through these. He highlighted a number of regional and international networks that are relevant to FGR. He indicated that regions may have a bigger voice than individual countries. He also recalled the usefulness of the diversity of specializations.

2.1 Technical Presentations

The introductory remarks were delivered by Mr. Albert Nikiema, reiterating the objective of the above workshop objectives and highlighting the expected results below:

- Suggestions made to NFPs for the finalization of their country report when applicable
- Regional priorities and needs identified
- Identify main actors and relevant national/regional strategies/programmes for synergy (eg national/regional forest management programmes, national/regional biodiversity strategy and action plan)
- Commitment made to finalize and submit country report for those not yet finalized.

Reports from different countries were presented and the following table summarizes the status of national reporting and issues specific to each country.

Table 1: Status of the Eastern and Southern African Reports

Region	Country	Reporting Status	Other comments on report and follow up
Eastern Africa	Somalia	-Draft is available	-Staff from FAO Somali Office contributed their experience on FGR in Somalia. -NFP submitted priority species list during the workshop meeting - Officers from FAO Somali Office committed to support Somali NFP in finalizing the country report. -Draft will be submitted as soon as it is ready
	Sudan	-Draft available	-Because of his recent nomination the NFP could not finalize the country the report -Mentioned need to get more support from his hierarchy given the importance of the process -He Submitted a new draft a week after the workshop. The draft is under review
	Ethiopia	-Final copy was submitted	Acknowledged support from FAO
	Kenya	-Draft submitted one week before the workshop	Report will be finalized (dates committed to be discussed with the national experts and parties involved)
	Tanzania	-Draft available	- Currently reviewing report for final official submission. Report has been reviewed up to chapter 5 -Received some funds to review the report Final report will be submitted as soon as review is complete (no dates committed)
Southern Africa	Seychelles	-Draft available	-TCPf was received - validation workshop will be held in mid October -Expecting comments from FAO
	Swaziland	-Draft already submitted	- Amendments will be made and then final report submitted.
	South Africa	-Draft submitted	-An amended report was sent after the workshop
	Madagascar	-Final report was submitted	
	Mauritius	-Draft report available	Amendments will be made and then final report submitted.
	Zambia	-Draft available	- Expect to finalize the report soon after the workshop. -Exotic species may be finished up in the country so they need reforestation programmes -There is an ongoing Integrated Land use Assessment that could benefit FGR
	Zimbabwe	-Final report submitted	-Some copies were distributed to the participants during the workshop
	Malawi	-Draft available	-Executive summary, Chapter 5 and recommendations not yet complete -Chapter 4 was combined with chapter 3 to form one chapter -Final report will be submitted on completion of the missing chapters.

The discussions that followed the presentations raised the following issues:

i. Lack of funds was the major challenge which led to inadequate consultations and poor motivation. In response, FAO indicated that there should be a wider mechanism of sourcing for funding, not only from FAO since it is the countries that are the final users of the reports and there were limited funds at FAO. It was also acknowledged that NFPs were not duly informed about how FAO TCP operates.

ii. Regarding threats that were presented, there were suggestions to source out those that can be linked to a particular species and thereafter CITES can easily be involved.

iii. A specific question about the current operations of SADC to support tree seed center in Zimbabwe, indicated that SADC is no longer supporting the tree seed centre but Zimbabwe took over the responsibility and owns the seed centre as a national asset but the seed centre can sell vegetative material or can give any other services any other countries but with a cost.

iv. Promotion of sector coordination to combat most of the threats to FGR was strongly emphasized. The role of FAO in contributing to FGR conservation and acting as a link to different sectors is demanded.

v. Introduction of FGR agenda in other ongoing activities was called upon. Ongoing Integrated Land use assessment in Zambia and the NAFOMA in Tanzania were cited as opportunities to integrate FGR issues.

vi. Considering how to involve politicians or even integrate FGR in policies or National plans, the suggestion was that we need to clearly indicate their potential especially in Food security and Poverty. Kenya cited its recognized contribution of many NWTPs to economy e.g. the mushrooms, orchids, ferns and mosses. It was also pointed out that importing countries of many of these products (citing *Prunus africana*) are willing to partner with local institutions to promote conservation. Then ABS mechanisms should be clearly streamlined.

vii. In response to ABS, the challenge is that many African countries do not have the persuasive power or even the capacity for negotiations for ABS or power to enforce MOU with developed countries to pay. The need for valuation of FGR in terms of carbon stock for resource makers was also identified as a marketing strategy for FGR.

viii. With regards to how to forge partnerships with private companies in conserving and breeding indigenous tree species , world events e.g. the World environmental day and other global for a were cited as a very useful pathways to voice conservation needs to many stakeholders including private companies. Involvement of private sector was deemed vital since it can be a good motivation for other stakeholders. Mr. Albert Nikiema shared some experiences in Central West Africa regarding public private sector partnership. However, political will was indicated as an essential prerequisite.

ix. Training and Capacity building were also cited as very critical needs

x. Whether forest loss really leads to loss of FGR was exemplified by the fact that fires for example lead to loss of seed trees or selective logging likewise.

xi. Countries shared some experiences on invasive species and their management citing the existence of an invasive species network important for sharing information on these species. Other databases like PROTA, TROPICOS, ARSIE provide a lot of information on many Africa species.

xii. Participants considered having a regional forum and database both at national and regional levels, for information sharing, harmonizing activities, and sharing propagation material but also for sourcing funds. CBD was also cited as a good source of links since it covers mall aspects of forestry. FAO's role as a facilitator was deemed critical.

xiii. Sharing experiences on Eucalyptus growing and how to create positive perception about Eucalyptus, it was proposed that awareness is still much needed and to encourage people to at least plant them in water logged areas.

xiv. Good assessment of Local knowledge on forest species especially the NWTPs or its improvement should also be a priority for the region

2.2 Day 2: Group discussions: Regional Needs and Priorities

Mr. Albert Nikiema explained the procedure to the participants. Participants divided into groups based on sub regions, the Eastern Africa Group with countries of Ethiopia, Tanzania, Sudan, Kenya, Malawi and Somalia (represented by the FAO Somali Office)

The 2nd Group had participants from the South African countries, Lesotho, Madagascar, Mauritius, Seychelles, South Africa, Swaziland, Zambia and Zimbabwe.

2.3 Day 3: Presentation of results from group discussions

Participants presented the results of their group discussions (Annexes 1, 2, 3 & 4) which will be reflected in the regional synthesis report. Discussions were held after each presentation

2.4 Highlights and questions from the Discussions

Southern Africa

State of knowledge

i. SADC should be included as one of the partners under resource management and use since they have a number of regional projects

ii. How do we harmonize policies?

Poor management of FGR is mainly linked to lack of political will or the understanding of FGR; therefore there is a need to create awareness

iii. How do we deal with Institutional fragmentation?

The commission on FGR was cited as one entity that is trying to reduce gaps between the different institutions working on genetic resources by encouraging data sharing. Priority species at regional level should be considered as a way to improve networking. FGR issues should be represented in inter-sectoral meetings.

Research

i. How do we link research and policy?

IPBES among other inter government panels was cited as a good platform for countries since they package scientific and local knowledge into a way that can easily be comprehended and then it is discussed within political representatives of the different countries. And NFPs were advised to find means o participating in that forum.

Capacity building

i. How can we influence curricula and to make students interested on FGR and related study fields?

ii. How do we promote continuity, succession and capacity building within the institutions?

ABS

i. Capacity building is needed on ABS in all the countries

The group was advised to reduce the list of constraints since the long list may scare the reader of the report.

Eastern Africa

ii. The needs and priorities that were suggested took into account the great variability in conservation status in the region e.g. no conservation programmes in Somalia contrary to other countries

iii. CAMCORE mentioned in Southern African countries could not apply in East Africa because of the high membership fees.

iv. A proposal to discuss in details of who, how, when was not received since this is a step before detailed work plans and activities are drawn. The needs and priorities have to be endorsed by the international community.

Status and knowledge: Inventories

v. How do we bring out FGR during these inventories?

vi. How do we share information?

There is a knowledge platform with UNDP; the idea could be adapted to FGR participants. Forest communication network is also being established for Eastern and Southern African countries which could also be a good opportunity for FGR group. The website will be launched in October 2012

vii. How do we link FGR to carbon trade?

There is need to advocate for the importance of genetic diversity to adaptability and the importance of tree improvement to provide fast growing trees or the need to provide specific adapted trees to some countries with hash environments like Somalia.

viii. Eco-regional analysis should also be done since not all countries in the sub regions have the same needs especially in priority species. For example Madagascar and Mauritius have many important endemic species. Also some countries have important locally threatened species.

3.0 Closing remarks

In his concluding remarks, the Dan Rugabira, FAO representative of Kenya reiterated the importance of FGR, the current threats and the urgent need of FGR conservation and the need for factual information for decision making on actions to be undertaken in FGR.

The FAO rep also expressed his gratitude for the productive ending of the workshop and for the fact that important recommendations were made and reassured participants that the information provided will be a useful tool for the development of future policies and programmes at national regional and global levels

He reminded the participants who had not yet submitted their final reports to do so as soon as possible.

4.0 Field trip

The field trip to KEFRI was coordinated by Mr. Bernard Kigomo. The objective was to familiarize with the work of the seed centre in relation to FGR activities. Mr. Peter Angaine, manager Kenya Forestry Seed centre and Mr. William Omondi, the National tree seed programme coordinator, took us through the activities relating to seeds processing and handling.

5.0 Annexes

Annex 5.1: Synthesis table for Southern regional needs and priorities for action

Members

James Mwang'ombe- Chair	Kenya Forest Service, Kenya
Siima Bakengesa- Rappoteur	TAFORI, Tanzania
Clement Chilima- Member	FRIM, Malawi
Mohamed Hussein-Member	FP, Sudan
John M. Ngatia - Member	FAO, Kenya
Beatrice Khayota- Member	National Museums, Kenya
Tesfaye Awas – Member	Ins. Biod, Ethiopia
Sylvia Wachira- Member	FAO, Somali
Simon Mumuli	FAO, Somali

Subject/theme	Constraints	Needs and priority for actions	Regional and international collaboration /Partners
State of knowledge on FGR	1- Information on FGR is inadequate, Scattered and not shared and non compatible formats 2- Inadequate capacity to assess genetic diversity genetic erosion at institutional and community level	1. Needs assessment and gap identification 2. Promote inventory/monitoring and surveys 3. Collect and collate Systematic and compatible documentation system 4. Promote networking and collaboration 1. Trained personnel at all levels 2. Equipment and tools 3. Standardized methods in undertaking survey and inventory 3. Awareness at community level	FAO, IUCN, ICRAF,BIO-VERSITY, FISNA, EAC, AU,NEPAD, WFP, SADC,IUFRO, FORNESSA,IFAD, AFN, institutions of higher learning, Research Institutions
Conservation	1- Weak capacity in FGR collection, survey and ecosystem approach. 2- Habitat degradation including protected areas due to pressure on land conservation from over exploitation such as charcoal , encroachment 3- Lack of conservation areas	1. Trained personnel at all levels 2. Equipment and tools 3. Standardized methods in undertaking survey and inventory 1. Systematic and collaborative surveys 2. Networking and collaboration in combating AIS and other threats to FGRs. 3. Combating desertification, adaptation to climate change 4. Undertake EIAs 5. Awareness at all levels 1. Re establish and strengthen protection of existing conservation area	FAO, IUCN, ICRAF,BIO-VERSITY, FISNA, EAC, AU,NEPAD, WFP, SADC,IUFRO, FORNESSA,IFAD, AFN, institutions of higher learning, Research Institutions
Management and Uses	1- Inadequate coordination in resource management with proper management plans among key sectors, policy makers as well as inclusive approach of all stakeholders. 2- Inadequate knowledge and effective enforcement on sustainable utilization of FGR including resource valuation , value addition etc	1. Need to establish/ strengthen national and regional coordination FGR units. 2. Promote inter-sectoral approach to FGR 1. Promote information generation and sharing 2. Ensuring effective implementation, enforcement and compliance in FGR utilization 3. Collaborative resource valuation	FAO, KEW(MSB), IUCN, ICRAF,BIO-VERSITY, UNEP-WCMC, CITES, TRAFFIC FISNA, EAC, AU,NEPAD, WFP, SADC,IUFRO, FORNESSA,IFAD, AFN, institutions of higher learning, Research Institutions FAO, IUCN, ICRAF,BIO-VERSITY, FISNA, EAC, AU,NEPAD, WFP, SADC,IUFRO, FORNESSA,IFAD, AFN, institutions of higher learning, Research Institutions
Research programmes	1- Research institutions / Centre of Excellence that have adequate facilities to undertake research that is coordinated both at national and regional levels 2- Adoption of new emerging technology / techniques / tools for Research in FGR	1. Identification research institutions in national and regional centers of excellence 2. Strengthening of existing Research Institutions 1. Identification and promotion of use of new and emerging technologies/tools for research in FGR	FAO, KEW , CBD, FGR,IUCN, ICRAF,BIO-VERSITY, FISNA, EAC, AU,NEPAD, WFP, SADC,IUFRO, FORNESSA,IFAD, AFN, institutions of higher learning, Research Institutions
Capacity building	1- Low institutional capacity human , equipment and infrastructure relevant to FGR	1. Establish and strengthen existing training institutions 2. Establish/ strengthen collection and storage centers e.g. Gene banks, arboreta, herbarium, orchards 3. Develop curricular that are relevant to FGR	FAO, IUCN, ICRAF,BIO-VERSITY, FISNA, EAC, AU,NEPAD, WFP, SADC,IUFRO,
	Lack of curricular a in		FORNESSA,IFAD, AFN,

	Tertiary Institutions relevant for FGR		institutions of higher learning, Research Institutions
Policies / Institutions / Legislations/ Access & Benefit Shearing	1- Inadequate legislation / policy that are often ineffectively implemented / enforced with overlapping sectoral mandates 2- Inadequate comprehension and domestication and negotiation skills of international agreements- access, material transfer, ABS, MTAS, MAS etc.	1. Develop/ review policies and legislation relevant to FGR 2. Ensure effective implementation and enforcement of legislation by respective agencies 3. Reforming/ transforming where necessary of existing institutions for more stability and efficiency. 1. Promote understanding and implications of international conventions through building capacity in negotiation skills, awareness -Enhance knowledge on legal aspects of the Ias	FAO, IUCN, ICRAF,BIO-VERSITY, FISNA, EAC, AU,NEPAD, WFP, SADC,IUFRO, FORNESSA,IFAD, AFN, institutions of higher learning, Research Institutions

Annex 5.2: Priority Species for Eastern Africa

	Species	Countries	Number
1	***Acacia mearnsii***	**Eritrea, Kenya, Mozambique, South Africa, Swaziland, Uganda, Reunion, Seychelles**	8
2	*Acacia melanoxylon*	Kenya, Tanzania	2
3	*Adansonia digitata*	Eritrea, Ethiopia, Malawi, Kenya, Tanzania, Sudan	6
4	*Afzelia quanzensis*	Kenya, Malawi, Tanzania,	3
5	*Casuarina equisetifolia*	Kenya, Uganda,Sudan	3
6	*Colophospermum mopane*	Malawi,	1
7	*Diospyros mespiliformis*	Eritrea, Sudan, Ethiopia	3
8	*Eucalyptus camaldulensis*	Eritrea, Kenya, Malawi, Tanzania, , Uganda, Ethiopia	
9	*Eucalyptus grandis*	Kenya, Tanzania, Malawi, Uganda,	4
10	*Eucalyptus tereticornis*	Malawi, Uganda, Sudan.	3
11	*Faidherbia albida*	Eritrea, Sudan, Ethiopia, Kenya, Tanzania, Malawi,	6
12	*Grevillea robusta*	Eritrea, Ethiopia, Sudan,Kenya, Tanzania, Uganda	6
14	*Khaya anthotheca*	Malawi, Tanzania, Uganda,	3
15	*Leucaena leucocephala*	Tanzania, Djibouti, Eritrea, Sudan, Kenya, Uganda	5
16	*Milicia excelsa*	Kenya, Malawi, Sudan, Uganda, Tanzania	5
17	*Pinus patula*	Kenya, Sudan, Malawi, Tanzania, Uganda	5
18	*Pterocarpus angolensis*	Malawi, ,Tanzania	2
19	*Sclerocarya birrea*	Eritrea, Kenya, Ethiopia, Tanzania,	4
20	*Tamarindus indica*	Eritrea, Ethiopia, Kenya, Malawi, Sudan,Uganda, ,Tanzania	7
21	*Trichilia emetica*	Kenya,	1
22	*Brachystegia spiciformis*	Tanzania, Malawi, Kenya	3
23	*Julbernardia globiflora*	Tanzania	1
24	*Gmelina arborea*	Tanzania, Sudan	1
25	*Allanblackia stuhlmanii*	Tanzania	1
26	*Cephalosphaera usambarensis*	Tanzania	1
27	*Vitellaria paradoxa*	Ethiopia, Sudan, Kenya	3
28	*Prunus africana*	Tanzania, Kenya, Uganda, Ethiopia	4
29	*Widdringtonia whytei*	Malawi	1
30	*Acacia senegal*	Sudan, Ethiopia, Kenya	3
31	*Acacia bussei*	Somalia	1
32	*Balanites aegyptiaca*	Somalia , Ethiopia, Kenya, Sudan	4
33	*Thespesia danis*	Somalia	1
34	*Juniperus procera*	Somalia, Ethiopia, Sudan , Tanzania, Malawi, Kenya	6
35	*Acacia seyal*	Kenya, Sudan	2
36	*Hagenia abyssinica*	Sudan, Ethiopia	2
37	*Ziziphus mauritania*	Somalia, Malawi, Ethiopia.	3
38	*Anogeissus leiocarpa*	Sudan	1
39	*Combretum spp.*	Sudan	1
40	*Terminalia spp.*	sudan	1
41	*Cordia spp.*	Sudan	1
42	*Prosopis spp*	Sudan	1

Annex 5.3: Synthesis table for Eastern regional needs and priorities for action

Subject/theme	Constraints	Needs	Priority for actions	Regional and international collaboration /Partners
State of knowledge on FGR	• Inadequate knowledge on FGR • Inadequate baseline data • Funding • Brain drain • Insufficient legislation on FGR	• Capacity Building • Research • Survey /Inventory including Maps for FGR • Genetic Studies on Endemic /Native species including Red List • IAS map to study and determine its invasion.	• Funding • Awareness raising • Inventory of FGR • Information sharing / dissemination • Technology transfer • Modern Infrastructure/equipment • Promoting /enhancing Traditional knowledge of FGR • Implementation of strategies /action plans e.g IAS	• Networking • International co-operation • Regional database • SADC • FAO • GEF /UNDP • COMESA • WWF • CBD- Clearing House mechanism
Conservation	• Rapid development & population growth • Land Conversion • habitat fragmentation • Over-exploitation • IAS • Climate Change • Limited land area (SIDS) • Funding for conservation • Bush fires • Lack of political will	• Funding • Capacity Building • Research • Modern infrastructure /equipments/ storage facilities (Gene banks) • Increase protected areas • Management plans. • Revive SADC Regional Tree Seed Centre Network	• Establishment & maintenance of arboretums and botanical gardens • Expansion of PA (in-situ & ex-situ) • Updating and reviewing legislations and policies • Up scaling of ex-situ areas • Implementation of actions plans and monitoring • Enforcement and stricter penalties • Active participation in SARFOGEN and Forestry Invasive Species Network	• IUCN • SADC • CBD • Millennium Seed Bank • Kew Gardens • WWF • Conservation international • GEF/UNDP/UNEP • FAO • CAMCORE (Central America and Mexico Coniferous Resources Cooperation) • SARFOGEN
Management and Uses	• Inadequate knowledge on FGR / Information Gap • Inadequately trained personnel • Funding • Over-exploitation • Land Conversion • Land Tenure • Inconsistencies in policies and legislations	• Policies and stricter penalties • Awareness raising and research • Capacity building • Institutional arrangements and Forest governance. • Promote and upscale the community initiatives	• Management plans / Joint Forest Management/Community forestry • Review legislations and policies • Enforcement and monitoring • Explore Opportunities for niche markets for exports • Putting in place Forest Land and	• Networking • CITES • COMESA • EU • ITTO • BRICS

	• Socio-economic pressures on FGR • Conflicts among stakeholders • Human and wildlife conflicts • Overgrazing • Climate Change • Pests and diseases • Lack of marketing strategies and value addition • Traditional beliefs		Information System • Contingency plans for fire management, etc	
Research programmes	• Lack of Funding • Inadequate Capacity Building • Lack of Infrastructure & latest equipments • Brain drain • Institutional fragmentation • Inadequate trained personnel • Complicated information and too scientific. • Lack of institutional co-ordination and collaboration and dissemination • Lack of local research	• Prioritize research on FGR on specific areas • National Government Budgeting specifically for research • Strengthening & collaboration of forest research institutions	• Sensitize the importance of research to all stakeholders including legislators /politicians. • Specific funding for research should be allotment in National budget. • Promote and good Incentives for researchers • Capacity of training of trainers • Encourage networking and publications of research papers • Define clear career path for researches • Scholarships and subsidies should be given to researchers.	• IUFRO, • CAMCORE • JICA, • SADC • SIDA, • CIFOR • DANIDA • GEF, • TICA • FINNIDA • Commonwealth • GTZ, • DFID, • WWF • Conservation International • AFD
Capacity building	• Lack of Funding • Lack of Infrastructure & latest equipments • Inadequate qualified trainers on FGR • Local University does not provide specialized areas.	• Funds from National budget for capacity building • Planning of succession • Political will • International collaboration • Training of trainers	• Information dissemination • Transfer of appropriate & relevant capacity in specific areas. • Funding and scholarships from International organizations • National curriculum should incorporate forestry at all levels.	• IUFRO • CAMCORE • JICA • SADC • SIDA • CIFOR • DANIDA • GEF • TICA • FINNIDA • Commonwealth • GTZ • DFID • WWF • Conservation International

Policies / Institutions / Legislations/ Access & Benefit Sharing (ABS)	• Lack of Political will • Lack of regulations/ Bills • Inadequate enforcement and monitoring • Little or no coordination of institution • Institutional fragmentation • Bureaucracy • No clear cut mechanisms for ABS • Insufficient knowledge about the market value of FGR • Intellectual Property Rights (IPR) / Patenting	• Integrating and harmonizing • FGR in National policies, strategies and legislations • Specific institutional arrangement	• Updating and reviewing legislations and policies • Enforcement and stricter penalties • Collaboration with institutions. • Implementation of multilateral agreements as well as international organizations.	• RIO Conventions • Multilateral Agreements • Seed Bill

Annex 5.4: Priority Species for Southern Africa

	Species	countries	Number
1	*Acacia mearnsii*	Mozambique, South Africa, Swaziland, Reunion, Zimbabwe	5
2	*Acacia melanoxylon*	Lesotho, Mauritius, South Africa	4
3	*Adansonia digitata*	Angola, Botswana, Mozambique, Namibia, Zambia, Madagascar,	7
4	*Afzelia quanzensis*	Botswana, Mozambique, Zambia, Zimbabwe, Swaziland	5
5	*Casuarina equisetifolia*	Angola, Mauritius, Mozambique, South Africa, Madagascar,	6
6	*Colophospermum*	Angola, Botswana, Malawi, Mozambique, Namibia, Zambia,	7
7	*Diospyros*	Angola, Botswana, Mozambique, Namibia, Zambia, Zimbabwe	6
8	*Eucalyptus*	Angola, Botswana, Mozambique, Namibia, South Africa,	7
9	*Eucalyptus grandis*	Angola, Mozambique, South Africa, Zambia, Madagascar,	7
10	*Eucalyptus tereticornis*	Angola, Malawi,Mauritius, Mozambique, Zambia, Zimbabwe	6
11	*Faidherbia albida*	Botswana, Mozambiques, Namibia, Zambia, Zimbabwe,	7
12	*Grevillea robusta*	Mozambique, South Africa	2
13	*Guibourtia*	Angola, Botswana, Mozambique, Namibia, Zambia, Zimbabwe	6
14	*Khaya anthotheca*	Angola, Malawi, Mozambique, Zambia, Zimbabwe	5
15	*Leucaena*	Angola, Botswana, Mauritius, Mozambique, Namibia, South	9
16	*Milicia excelsa*	Angola, Mozambique, Zimbabwe	3
17	*Pinus patula*	Angola, Mozambique, South Africa, Swaziland, Zimbabwe	5
18	*Pterocarpus*	Angola, Botswana, Mozambique, Namibia, Zambia, Zimbabwe,	7
19	*Sclerocarya birrea*	Angola, Botswana, Madagascar, Mozambique, Namibia, Swaziland, Zambia, Zimbabwe, South Africa	9
20	*Tamarindus indica*	Madagascar, Mozambique, Zambia	3
21	*Trichilia emetica*	Botswana, Mozambique, Namibia, Zambia, Swaziland	5
22	*Baikaea plunjuga*	Zambia, Zimbabwe	2
23	*Ludoicea mailivica*	Seychelles	1
24	*Acacia senegal*	Sudan, Botswana, Zimbabwe	3
25	*Pinus oocarpa*	Zambia, Zimbabwe	2
26	*Pinus kesiya*	Zambia, Madagascar, Swaziland, Zimbabwe	4
27	*Coloophospermum*	Zambia, Zimbabwe	2
28	*Cocos nucifera*	Madagascar, Seychelles	2
29	*Pinus tecunumanii*	Angola, Mozambique, South Africa, Zambia, Madagascar,	7
30	*Medusagyne*	Seychelles	1

Annex 5.5: List of participants

No	Full name	Institution and country	Title	Address and Email
1	**Dr. Tesfaye Awas**	Institute of Biodiversity Conservation, Ethiopia	Taxonomist and Gene bank Case-team Leader,	*tesfayeawas@gmail.com*
2	**Mr. James Mwang'ombe Mwamodenyi**	Kenya Forest Service, Kenya	Senior Assistant Director - Head of Biodiversity Management	*jmwangombe@kenyaforestservice.org*
3	**Mr Hasinjato RANDRIANAVOSOA**	Silo National Des Graines Forestieres, Madagascar	Chef de section de recherche au SNGF	*hasinjaton@yahoo.fr*
4	**Mr. Clement Chilima**	Forestry Research Institute of Malawi	Assistant Director	*cchilima@gmail.com*
5	**Cyparsade Cecily**	Ministry of Agro Industry & Food Security - Forestry Service, Mauritus	Assistant Conservator of Forests	*ccyparsade@mail.gov.mu*
6	**Eric Marc Sophola**	Seychelles National Parks Authority, Seychelles	Senior Forestry Officer	*ericsey@hotmail.com*
7	**Ms. Sindiswa Goodness Boqo**	Department of Agriculture, Forestry and Fisheries, South Africa	Assistant Director	*Sindy@nda.agric.za*
8	**DR. Mohammed Hussein**	Sudan	NFP	*husseinmohammed414@yahoo.com*
9	**Mr. Zacharia Dlamini**	Forestry Department, Swaziland	Assistant to the National Herbarium,	*zacharia.Dlamini@yahoo.com,*
10	**Ms. Siima Salome Bakengesa**	Forest Production Research Department, Ministry of Natural Resources and Tourism, Tanzania	Acting Director	*siima_b@yahoo.com*
11	**Mr Mpande Sichamba**	Forestry Department, Forest Research Division, Zambia	Senior Forest Research Officer	***msichamb@yahoo.com***
12	**Mr. Chemist Gumbie**	Research and Training Division, Forest Research Centre, Forestry Commission, Zimbabwe	Deputy General Manager	*cgum@frchigh.co.zw*
13	**Philip Kisoyan**	FAO, Kenya		*Philip.Kisoyan@fao.org*
14	**Sylvia Wachira**	FAO, Kenya	Natural Resource Officer	*Sylvia.Wachira@fao.org*
15	**Simon Mumuli**	FAO, Kenya	Land use officer	*Simon.Mumuli@fao.org*
16	**Millicent Randiki**	FAO, Kenya	Programme support officer	*Millicent.Randiki@fao.org*
17	**Ngatia John**	FAO, Kenya	Programme support officer	*John.Ngatia@fao.org*
18	**Beatrice Khayota**	National Museums , Kenya	Principal Research Scientist	*bkhayota@museums.or.ke*
19	**Bernard Kigomo**	KEFRI	Deputy Director	*bkigomo@kefri.org*
20	***Edward Kilawe***	FAO SubRegional Office for Eastern Africa (SFE),Addis Ababa, Ethiopia	Forestry Officer	*Edward.Kilawe@fao.org*
21	**Albert Nikiema**	*FAO, Rome*	Forestry Officer	*Albert. Nikiema@fao.org*
22	**Judith Nantongo**	FAO, Rome	Junior Professional Officer	*Judith.Nantongo@fao.org*

Annex 5.6: Agenda

Programme	
Sunday September, 16th 2012	**Nairobi, Kenya**
Arrival of Participants	
Monday 17th September	
8.30 – 9.00	Registration
9.00 – 9.30	Opening :
	- Welcome by FAO-R
	- Official Opening by Director KEFRI
9.30 – 10.30	Presentation of the programme and workshop objectives
10.30 – 11.00	**Coffee break**
11.00 – 12.30	Presentation of key findings and recommendations of Country Reports on FGR by NFPs *15mn by presentation* (Cont.) 15 mn discussions starting at 12h15
12.30 – 14.00	**Lunch**
14.00 – 15.00	Presentation of key findings and recommendations of Country Reports on FGR by NFPs *15mn by presentation* (Cont.)15 mn discussions starting at 15h00
15.15 – 16.30	Presentation of key findings and recommendations of Country Reports on FGR by NFPs (Cont.) 15 mn discussions starting at 16h15
16.30 – 16.45	**Coffee break**
16.45 – 17.30	Introduction to group working for the 2 sub-regions : TOR for the group work
Tuesday 18th September	
8.30 – 10.30	Sub-regional group working to identify regional needs and priorities on FGR for action (Cont.)
10.30 – 11.00	**Coffee break**
11.00 – 12.30	Sub-regional group working to identify regional needs and priorities on FGR for action (Cont.)
12.30 – 14. 00	**Lunch**
14.00 - 17.30	Sub-regional group working to identify regional needs and priorities on FGR for action
	Finalise outcome of group work for presentations in plenary
Wednesday 19th September	
8.30 – 10.30	Presentation of the outcome of the working groups on the regional needs and priorities, discussion and adoption
10.30 – 11.00	**Coffee break**
11.00 – 12.30	Presentation of the outcome of the working groups on the regional needs and priorities, discussion and adoption
12.30 – 13.00	Closing session
13.00 – 14.00	**Lunch**
14.00-18.00	Field Trip to KEFRI
20th September: Departure of participants	

Département des forêts

Organisation des Nations Unies pour l'alimentation et l'agriculture

Documents de travail sur les ressources génétiques forestières

*Atelier de consultation régionale sur les ressources génétiques forestières de **l'Afrique centrale***

Libreville, République Gabonaise

Préparé par la FAO en collaboration avec COMIFAC

Décembre 2012

Division de la forêt de l'évaluation, la gestion et la conservation Département des forêts

Ressources génétiques forestières
RGF/xxx

1.0 Avant-propos

La diversité génétique est la base de l'évolution des espèces d'arbres forestiers et de leur adaptation au changement climatique. La conservation des ressources génétiques forestières (RGF) est dès lors, fondamentale car elles représentent une ressource unique et irremplaçable pour l'avenir. La gestion des ressources génétiques forestières ne peut être efficace que si elle fait partie intégrante des programmes et activités de gestion durable des forêts. Il est cependant reconnu que l'absence d'informations conséquentes aux niveaux global, régional et même national dans certains cas, limite la capacité des pays et de la communauté internationale à intégrer la gestion des ressources génétiques forestières dans les politiques. C'est pourquoi la Commission des Ressources Génétiques pour l'Alimentation et l'Agriculture (CRGAA) de la FAO a reconnu l'urgence d'une conservation et d'une utilisation durable des RGF et a demandé à la FAO de préparer le premier rapport sur l'Etat des Ressources Génétiques Forestières mondiales à soumettre à la commission en sa quatorzième session en Avril 2013.

Dans le cadre de l'élaboration de ce rapport, la FAO en collaboration avec la COMIFAC ont regroupé les 7 et 8 septembre 2012 à Libreville en République Gabonaise, les Points Focaux Nationaux sur les Ressources Génétiques Forestières que d'autres acteurs importants intervenant dans la gestion et l'utilisation des RGF en Afrique centrale, notamment les membres du Groupe de travail de la COMIFAC sur la biodiversité (GTBAC).

2.0 Introduction

Du 7 au 8 Septembre 2012 s'est tenu à Libreville au Gabon, l'atelier sous-régional sur l'état des ressources génétiques forestières dans les pays de l'Afrique centrale. Cette réunion a été organisée par l'Organisation des Nations Unies pour l'Alimentation et l'Agriculture (FAO) en collaboration avec la Commission des Forêts d'Afrique Centrale (COMIFAC), dans le cadre de l'élaboration du premier rapport sur l'Etat des Ressources Génétiques Forestières mondiales.

Les objectifs de la réunion étaient de :

- partager les conclusions des rapports nationaux des pays de l'Afrique centrale sur l'Etat des Ressources Génétiques Forestières ;
- identifier les besoins et priorités pour action en vue de l'utilisation et gestion durable des ressources génétiques forestières au niveau sous-régional ;
- formuler des recommandations pour des actions futures.

L'atelier a regroupé :

- les représentants de neuf des dix pays membres de la COMIFAC suivants: Burundi, Cameroun, Congo, Gabon, Guinée Equatoriale, République Centrafricaine, République Démocratique du Congo, Sao Tomé &Principes et Tchad, comprenant les Points Focaux Nationaux sur les Ressources Génétiques Forestières, les Points Focaux Nationaux de la Convention sur la Diversité Biologique et les Points Focaux Nationaux APA membres du Groupe de Travail Biodiversité d'Afrique Centrale (GTBAC) ;
- les représentants des organisations internationales et sous-régionales ci-après: FAO, COMIFAC et Biodiversity International.

La réunion a été modérée par Monsieur Chouaibou NCHOUTPOUEN, Expert Biodiversité et Désertification de la COMIFAC.
L'appui logistique a été assuré par Mesdames Céline NANA, Secrétaire de Direction au Secrétariat Exécutif de la COMIFAC, Lena ILAMA, Forestier junior FAO (Gabon) et Laetitia Malonga, FAO (Gabon).
Les travaux étaient articulés autour des points suivants :

- la cérémonie d'ouverture ;
- les présentations des résultats clés et recommandations des rapports des pays sur les ressources génétiques forestières ;
- la présentation des directives sur l'élaboration du rapport sous-régional ;
- l'identification des besoins et priorités de l'Afrique Centrale sur les RGF ;
- et la formulation des recommandations sur les étapes futures et définition des rôles des parties prenantes.

3.0 Cérémonie d'ouverture

La cérémonie solennelle d'ouverture a été marquée par deux allocutions : celle du Représentant du Secrétaire Exécutif de la COMIFAC et le discours d'ouverture du Représentant Résident de la FAO/Gabon et Coordonnateur du Bureau Sous-Régional de la FAO en Afrique centrale.

Allocution du Représentant du Secrétaire Exécutif de la COMIFAC, Monsieur Chouaibou NCHOUTPOUEN

Dans son allocution, le Représentant du Secrétaire Exécutif de la COMIFAC, a tout d'abord remercié au nom du Secrétaire Exécutif de la COMIFAC le Gouvernement du Gabon qui a bien voulu accepté abriter les travaux de cet atelier. Il a par la suite exprimé la gratitude de la COMIFAC au peuple gabonais pour l'accueil chaleureux qui a été réservé aux participants dès leur arrivée à Libreville. Poursuivant son propos, il a souhaité la bienvenue aux participants et remercié la FAO qui a bien voulu associer la COMIFAC dans l'organisation de cette rencontre. Il a souligné l'importance des ressources génétiques forestières pour les pays de l'espace COMIFAC et relevé la nécessité d'une étroite collaboration en tous les acteurs impliqués dans la gestion et la conservation des ressources génétiques en Afrique centrale. Il a mentionné que la sous-région Afrique centrale dispose une stratégie sous-régionale en matière d'accès aux ressources génétiques et le partage juste et équitable des avantages qui découlent de leur utilisation. Pour finir, il a exprimé le vœu que cette rencontre permette de formuler les recommandations en vue de renforcer la collaboration entre les Points Focaux Nationaux sur les Ressources Génétiques Forestières et les Points Focaux Nationaux de la Convention sur la Diversité Biologique ainsi que les Points Focaux Nationaux APA.

Allocution du Représentant Résident de la FAO au Gabon, Monsieur Lamourdia Thiombiano

Monsieur Thiombiano Lamourdia a tout d'abord souhaité la bienvenue aux participants à Libreville. Poursuivant son propos, il a exprimé sa gratitude à la COMIFAC pour sa franche collaboration dans l'organisation de ces assises. Il a par rappeler que le Bassin du Congo abrite le second bloc forestier tropical du monde avec une biodiversité exceptionnelle qui constitue un inestimable pour le développement socioéconomique des millions de personnes qui dépendent directement de ces forêts. Il a salué les efforts des gouvernements des pays d'Afrique centrale pour les efforts consentis pour la conservation des ressources génétiques forestières à travers les initiatives de conservation de la biodiversité. Il a souligné la nécessité d'intégrer la gestion des ressources génétiques forestières dans les programmes et politiques de gestion durable des forêts pour garantir son efficacité. Et pour cela, il faut s'assurer de la disponibilité d'informations conséquentes aux niveaux global, régional et même national dans certains cas, afin de renforcer la capacité des pays et de la communauté internationale à intégrer la gestion des ressources génétiques forestières dans les politiques. Et il a préciser que c'est dans cet optique que la Commission des Ressources Génétiques pour l'Alimentation et l'Agriculture (CRGAA) de la FAO a reconnu l'urgence d'une conservation et

d'une utilisation durable des RGF et a demandé à la FAO de préparer le premier rapport sur l'Etat des Ressources Génétiques Forestières mondiales à soumettre à la commission en sa quatorzième session en Avril 2013. Il a aussi rappelé que des ateliers similaires se sont déjà tenus dans d'autres sous-régions et qu'ils visent à partager les conclusions des rapports nationaux sur l'état des Ressources Génétiques Forestières et d'identifier les besoins et priorités pour la gestion durable des ressources génétiques forestières au niveau sous-régional. Pour clore son propos, il a souhaité plein succès aux échanges et déclaré ouvert les travaux de l'atelier sous-régional sur l'état des ressources génétiques forestières dans les pays de l'Afrique centrale.

Après la cérémonie d'ouverture, les participants se sont présentés en précisant leurs noms, leurs pays, leurs institutions et leurs fonctions (voir liste des participants en annexe). Ceci a servi de transition aux différentes présentations en plénière.

4.0 Présentations en plénière

Après la cérémonie d'ouverture, s'en sont suivies les communications en plénière qui ont porté sur : les objectifs et résultats attendus de la réunion, les résultats et recommandations des rapports nationaux, les autres projets et initiatives en liens avec les RGF et l'identification des besoins et priorités pour action en vue d'une utilisation et gestion durable des RGF en Afrique centrale.

4.1 Présentation des objectifs et résultats de l'atelier

Cette présentation introductive a été faite par Monsieur Albert Nikiema, Fonctionnaire forestier FAO, Rome. Dans sa présentation, il a rappelé les organisateurs, les participants et les objectifs de l'atelier, ainsi que la définition des ressources génétiques forestières. Il a présenté la liste des pays d'Afrique centrale qui ont préparé leur rapport national sur l'état des ressources génétiques ainsi que la structure du rapport national.

Il est ressorti de cette présentation que :

- cet atelier a été organisé par la FAO en collaboration avec la COMIFAC à travers son Groupe de Travail Biodiversité d'Afrique Centrale (GTBAC) ;

- les participants concernés sont : les points focaux nationaux sur les RGF ; les points focaux de la Convention sur la Diversité Biologique (CDB), membres du GTBAC et les experts de la FAO et d'autres institutions ;
- les objectifs étaient de Partager les conclusions des rapports nationaux, d'examiner la synthèse régionale et d'identifier les besoins et les priorités pour action en Afrique centrale ;
- les RGF sont des ressources qui possèdent des valeurs actuelles ou potentielles de la diversité intra et inter spécifique forestière. La diversité génétique ici inclue la variabilité entre espèces et à l'intérieure d'une même espèce, entre population d'une espèce et à l'intérieure d'une même population et entre allèles dans les chromosomes ;
- Sept pays d'Afrique centrale ont prépare leur rapport national. Il s'agit : du Burundi, Cameroun, Congo, Gabon, de la RCA, RDC et du Tchad (draft) ;
- le rapport national est composé en général de huit chapitres qui portent respectivement sur : l'état actuel de la diversité des ressources génétiques forestières, l'état de la conservation génétique in situ, l'état de la conservation génétique ex-situ, le niveau d'utilisation et de la gestion durable des ressources génétiques forestières, l'état des programmes nationaux, de la recherche, de l'éducation, de la formation et de la législation, les niveaux de coopération régionale et internationale, l'accès aux ressources génétiques forestières et le partage des avantages résultants de leur utilisation et les contributions des ressources génétiques forestières à la sécurité alimentaire, à la lutte contre la pauvreté et au développement durable.

4.2 Présentations des résultats clés et recommandations des rapports des pays sur les ressources génétiques forestières

S'agissant des présentations des résultats clés et recommandations des rapports des pays sur les ressources génétiques forestières, cinq pays ont fait des exposés à savoir : le Gabon, le Burundi, le Tchad, la République Centrafricaine et la République Démocratique du Congo.

4.2.1 Rapport national du Gabon

Le rapport national sur l'état des ressources génétiques forestières au Gabon a été présenté par Madame Dyana Ndiade Bourobou de l'Institut des Recherches Agronomiques et Forestières/Centre National de la Recherche Scientifique et Technologique. Dans son exposé, elle a présenté la méthodologie de rédaction du rapport, la situation des RGF au Gabon, les usages et les acteurs

impliqués, les points faibles et les points forts pour la gestion et la conservation des RGF au Gabon. Elle a également présenté les recommandations qui ont été formulées en vue de renforcer la conservation et la gestion durable des RGF. Il s'agit de :

- approfondir les connaissances sur la diversité des ressources génétiques forestières: inventaires, structure des peuplements, dynamique naturelle, diversité génétique, réponse aux perturbations diverses;
- renforcer et améliorer les capacités institutionnelles humaines, matérielles et financières des institutions en charge ou impliquées dans la gestion et la conservation des ressources génétiques forestières;
- faire appliquer les textes juridiques et adapter le cadre réglementaire et institutionnel en tenant compte de l'évolution des risques liés aux activités anthropiques dans les territoires forestiers;
- encourager la coordination et la coopération entre les principaux acteurs de la gestion durable et les institutions de recherche et de formation, pour des réflexions participatives sur les programmes de recherche forestière et sur des actions de conservation adaptées ;
- préciser les actions spécifiques concernant les aspects de la diversité intra et interspécifique dans la loi de politique nationale ou sectorielle, ou dans les programmes portant sur la biodiversité et sa conservation;
- mener des enquêtes fines sur la contribution réelle de l'utilisation des ressources génétiques forestières dans les domaines économique, social, environnemental, culturel ;
- lever l'opacité au travers d'études statistiques économiques et d'enquêtes sur la réelle contribution chiffrée des recettes économiques issues de la consommation des Produits Forestiers Non Ligneux;
- développer les activités et les structures de conservation *ex situ*, en mettant l'accent d'une part sur la diversité des espèces et des provenances y représentées, et d'autre part sur la représentativité des espèces à risques;
- garantir l'actualisation, le partage et l'accès à l'information au travers des nouvelles technologies de gestion de l'information efficaces, et accessibles au grand public (sites internet, base de données numériques, séminaires et ateliers);
- élargir les actions de sensibilisation sur la préservation des ressources génétiques forestières par des moyens efficaces à un plus large spectre d'auditeurs (communautés, classes d'âge, secteurs d'activités, écoles..).

Il est ressorti de cette présentation, que le rapport national du Gabon sur les RGF a été validé au niveau national et transmis à la FAO.

4.2.2 Rapport national du Burundi

L'état des ressources génétiques forestières du Burundi a été présenté par Madame KAYOBOKE Claire, Point Focal National des RGF du Burundi. Sa présentation a porté sur : le contexte général du pays, l'estimation de la couverture forestière, l'état actuel des ressources génétiques forestières, l'état actuel du matériel de reproduction et identification, état de la conservation des ressources génétiques forestières, le niveau d'utilisation et l'état de la gestion durable des ressources génétiques forestières, l'état des programmes nationaux: recherche, éducation, formation et législation, état des accords et coopérations régionale et internationale, l'Accès aux RG et partage des bénéfices dérivés de leur utilisation, la contribution des RGF et les priorités actuelles du pays en matière de gestion des RGF.
Il est ressorti de cette présentation que le Burundi dispose des cadres juridique et institutionnel suffisants. Mais on note :

- l'absence d'une loi spécifique aux RGF ainsi que des lacunes et d'insuffisances dans les textes de lois régissant la conservation et la gestion durable des ressources forestières, soit en termes d'actualisation, soit en termes d'application ;
- l'absence d'un programme de recherche et d'un système de coordination entre tous les intervenants dans le secteur forestier ;
- l'insuffisance de communication entre les institutions de recherche et entre ces dernières et les utilisateurs de résultats de recherche ;
- l'absence de politique environnementale ;
- l'intégration insuffisante des conventions internationales ratifiées par le Burundi dans les textes de lois de droit national.

En termes de priorités, Madame KAYOBOKE a relevé :

- l'inventaire forestier,
- la meilleure planification du secteur forestier,
- le renforcement des capacités institutionnelles et humaines,
- l'actualisation et l'harmonisation et la vulgarisation des textes de lois,

- la mise en place d'un cadre de coordination des institutions impliquées dans la recherche, éducation et formation,
- l'amélioration de la communication,
- la réalisation des études sur les valeurs économiques de la biodiversité,
- Missions de visite des pays avancés,
- Mise en place d'un cadre de coopération avec les institutions avancées,
- Renforcement en matière de domestication des espèces autochtones.

L'on a retenu de cette présentation que le Burundi n'a pas encore validé son rapport national et attends l'appui financier de la FAO pour organiser l'atelier national pour la validation du rapport. Au terme des discussions qui s'en ont suivies, il a été demandé à la délégation du Burundi de proposer une feuille de route pour la finalisation de leur rapport.

4.2.3 Rapport national du Tchad

Le rapport du Tchad a été présenté par Monsieur Hamig TEGA. Dès l'entame de sa présentation a signalé que le rapport de son pays n'est pas encore achevé car les chapitres 7 et 8 ne sont pas encore traités. Ainsi, après avoir fait un aperçu général sur le Tchad, il a focalisé sa présentation sur les chapitres 1 à 6 qui portent respectivement sur : l'état actuel de la diversité des ressources forestières, l'état de conservation in situ, l'état de conservation ex situ, le type/mode d'utilisation des ressources forestières et le Niveau de coopération régionale et sous régionale. Il a également présenté les priorités du Tchad qui se dégagent sur les chapitres traités pour une meilleure conservation des ressources génétiques forestières.
L'orateur a souligné que le Tchad est l'un des plus pauvre pays du monde et sont milieu naturel présente trois grandes zones bioclimatiques à savoir : la zone désertique, la zone sahélienne et la zone soudanienne.

S'agissant de l'état actuel de la diversité des ressources forestières, les formations naturelles ont une superficie totale de 23.5 millions d'ha et sont composées des forêts denses/galeries (211.000 ha), les forêts claires/savanes boisées (3.626.000 ha), les savanes arborées (9.421.000 ha) et les savanes arbustives (10.192.000 ha). Les plantations ont une superficie estimée à 10.000 ha. Le Tibesti une région située l'extrême nord du Tchad regorge en plus des espèces communes à la zone désertique,

des espèces endémiques telles que: *Ficus carica* (altitude 1.350 – 1.700 m) et *Clematis tibestica* (altitude 2.100 – 2.400 m).
Pour ce qui est de la conservation in situ, ce pays à créer des Parcs nationaux et réserves de faunes, les Forêts classées et les Forêts sacrées.

S'agissant de la conservation ex situ, le pays dispose cinq arboretums à savoir : l'arboretum à de l'Université de N'Djamena à la faculté des sciences exactes et appliquées, l'arboretum de l'Institut Tchadien de la Recherche Agronomique pour le Développement (ITRAD) à Bébédja (Logone Oriental), l'arboretum du Centre National d'Appui à la Recherche (CNAR) de N'Djamena, l'arboretum du Laboratoire de Recherche Vétérinaire et Zootechnique (LRVZ) de N'Djamena, et l'arboretum inachevé du Centre de Formation Forestière à N'Djamena.

En ce qui concerne le type/mode d'utilisation des ressources génétiques forestières, l'on a noté qu'au Tchad, les ressources forestières ligneuses représentent 80 à 90% de l'énergie consommée par les ménages sous forme de bois de feu ou de charbon de bois. La consommation totale est de l'ordre de 4 millions de m^3. La gomme arabique contribue de façon significative à l'économie des ménages. Les gommerais (*Acacia senegal*) occupent une superficie de 36 000 à 38 000 km² (soit 1/6 de la zone sahélienne) mais dont seulement 1,5 millions d'hectares se prêtent à une exploitation soutenue. La production de la gomme arabique varie d'une année à l'autre mais sa moyenne est de 1 500 tonnes entre les années 1986 et 1991. Cette production a connu une progression fulgurante: 3 000 tonnes en 1991-1992, prés de 4 700 tonnes en 1992-1993, 5 480 tonnes en 1994-1995, plus de 6 700 tonnes en 1995-1996 et environ 5 800 tonnes en 1996-1997 , la production actuelle est supérieure à 25.000 tonnes. L'autre produit qui est très utilisé par la population tchadienne est le karité. Le karité (*Butyropermum parkii*) existe parfois en peuplement mélangé avec l'arbre à néré (*Parkia biglobosa*). Cette espèce est répandue dans le Sud de la zone soudanienne avec une densité variable. Les peuplements les plus denses sont observés en particulier dans les régions de la Tandjilé, du Logone Oriental, du Logone Occidental et du Moyen-Chari où il existe 50 à 60 millions arbres à karité dont seulement 4 à 5% seraient exploités. Dans la zone soudanienne, 4,6 millions de karité produisent 500 000 tonnes de noix par an.

Les priorités relevées suite à l'élaboration des six premiers chapitres sont les suivants :

- le renforcement la coopération à tous les niveaux,
- la création d'un centre semencier au centre de formation forestière de Milézi,
- la réhabilitation les forêts classées et mettre en place un dispositif de contrôle efficace,

- la définition du statut des forêts sacrées en les affectant aux communautés.

4.2.4 Rapport national de la RCA

Le rapport de la RCA a été présenté par Monsieur Augustin MEDI, Directeur des Etudes, de la Planification, du Suivi et Evaluation des projets. Cette présentation a été structurée en sept points essentiels à savoir : la situation géographique de la RCA, les formations forestières, les principaux inventaires forestiers, la contribution des RGF a la lutte contre la pauvreté, la recherche forestière, les reformes institutionnelles et les recommandations.

Il est ressorti de cet exposé que la RCA est un Pays enclavé de l'Afrique Centrale, frontalier avec les Républiques du Cameroun, du Tchad, du Soudan, du Congo Démocratique et du Congo, qui s'étend sur une superficie de près de 623.000 km2 et compte aujourd'hui une population estimée à 4,3 millions d'habitants. Le pays dispose des formations végétales qui varient suivant les zones climatiques et présentent une grande diversité, depuis la forêt dense de basse altitude au sud, jusqu'aux savanes arborées et arbustives au nord. Les forêts couvrent près de la moitié du pays soit 283 000 km2 et elles se présentent sous forme de forêt dense semi décidue, ou encore de mosaïque de forêt et de savane. La forêt dense semi-décidue prédomine et est riche en essences exploitables telles que : le Sapelli (*Entandrophragma cylindricum*), le sipo (*E.utile*), l'ayous (*Triplochiton scleroxylon*), le limba (*Terminalia superba*), le mukulungu (Autranella congolensis) etc… La savane couvre la plus grande partie de la RCA et est parsemée de nombreuses galeries forestières contenant des espèces comme *Daniellia oliveri, Hymenocardia acida, Albizia zygia etc.…*

Des inventaires forestiers successifs ont été réalisés par grandes périodes dont le plus important est celui réalisé par le Projet d'Aménagement des Ressources Naturelles (PARN) en 1994 et qui a inventorié une superficie de 3 787 777 hectares délimitée à l'ouest par la frontière camerounaise, au sud par la frontière congolaise, à l'est par l'Oubangui et au nord par une ligne à contour très irrégulier allant de Bangui à Gamboula en passant par Ngotto et Carnot. Le potentiel sur pied a été estimé à près de 85 millions de m^3 pour les essences pouvant intéressées le commerce international telle que : ayous (19%), limba (29%), sapelli (26%) et diverses autres espèces telles que l'acajou, l'azobé, le dibétou, l'iroko, le kossipo, le mukulungu, le sipo et le tiama, représentant 26% du potentiel.

S'agissant de la contribution des RGF pour la lutte contre la pauvreté, il se dégage qu'en RCA, l'exploitation du bois occupe le premier rang des exportations en valeur soit 35 milliards de FCFA par an et contribue à hauteur de 10% à la création de la richesse nationale. Le secteur forestier est le premier employeur privé du pays: 4000 emplois directs et 6000 emplois indirects. Environ 1.200.000.000 FCFA ont été reversés aux collectivités locales représentées par les communes forestières de 2008 à 2011.

Pour ce qui est de la recherche scientifique, elle a été menée depuis une vingtaine d'années en vue de la mise en valeur des ressources forestières et fauniques, aussi bien dans la zone des savanes qu'en zone de forêt dense. Ces travaux ont été menés par le CTFT/CIRAD-Forêt (Centre de coopération internationale de recherche agronomique pour le développement).

En ce qui concerne les reformes institutionnelles, Il n'existe pas de document spécifique de politique forestière en RCA. Toutefois, des recommandations ont été formulées par les États généraux des Eaux et forêts de septembre 2003 et ont abouti aux reformes suivantes: la promulgation de la Loi n° 08.022 du 17 octobre 2008 portant Code forestier, la création d'un Comité national chargé de définir une politique de reboisement à grande échelle et d'identifier les sites à reboiser, la création d'un Observatoire économique de la filière bois (OEFB) chargé de produire périodiquement la note de conjoncture sur la filière bois, un Compte d'affectation spécial de développement forestier (CAS-DF) a été créé pour appuyer les initiatives forestières grâce aux taxes forestières, désormais un mécanisme de sécurisation des recettes forestières est effectif et est assurée avec l'appui du Bureau Veritas, Inspection Valuation Assessment and Control (BIVAC). La RCA a signé un APV-FLEGT avec l'Union européenne le 21 décembre 2010 et a lancé pour ce faire un processus de concertation pluri-acteurs, qui a offert des opportunités pour l'élaboration de la stratégie nationale REDD^{+}.

Les principales recommandations/priorités formulées au regard de la situation des RGF du pays sont les suivantes :

- réaliser un inventaire national des RGF afin de disposer des données fiables pour leur gestion et leur conservation;
- continuer les travaux de recherche afin de fixer des règles techniquement et économiquement acceptables pour agir sur la dynamique de la forêt au profit des espèces nobles;

- poursuivre la recherche dans le domaine de la dynamique des formations ligneuses, de la phénologie, de reproduction des espèces menacées d'une part et dans le domaine de la variabilité génétique intra-spécifique d'autre part;
- redéfinir les limites des aires protégées et des forêts classées et réévaluer leurs superficies réelles;
- redéfinir les objectifs assignés à ces aires protégées;
- évaluer leurs RGF par des inventaires;
- procéder à l'évaluation des espèces forestières en plantations artificielles et renforcer leur protection contre les risques naturels anthropiques (feux de brousse, culture, pâturage, cueillette, etc.);
- augmenter le nombre de collections vivantes avec les espèces locales menacées;
- poursuivre les tests de reproduction des espèces prioritaires (germination, pépinière, plantation);
- domestiquer les fruits sauvages.
- mener une enquête sur la consommation du bois de feux pour actualiser les données de consommation de bois énergie dans les grandes villes et en milieu rural en vue d'une utilisation économe de la ressource;
- faire les recherches sur la phénologie, la reproduction, la répartition génétique des espèces prioritaires suivantes : *Entandrophragma cynlindricum, Aningeria altissima, Triplochiton scleroxylon, Dacryodes edulis et Vitellaria paradoxa*.

4.2.5 Rapport national de la RDC

La présentation du rapport national de la RDC a été faite par Monsieur Sébastien MALELE MBALA, Point Focal national des RGF de la RDC. Sa présentation a portée sur : le contexte et intérêt de l'étude pour la RDC, les difficultés et problèmes rencontrés, l'état des ressources génétiques de la RDC, les recommandations et les perspectives.

La RDC dispose d'une vaste étendue des forêts d'environ 155 500 000 ha (OSFAC, FACET 2010), ce qui représente 10% des forêts du monde. Il possède une Méga biodiversité avec plusieurs groupes taxonomiques (377 familles, 2196 genres et plus de 11 000 espèces d'angiospermes dont 3 200 endémiques). Cependant, il y a de nombreux problèmes de conservation, de gestion, d'utilisation

durable et de mise en valeur des RGF d'ordre : politique, législatif, scientifique, matériel, financier, Socio-économique et Culturel. Il existe aussi très peu de travaux qui sont exclusivement consacrés aux RGF dans le pays.

S'agissant des difficultés rencontrées pendant l'élaboration du rapport, il a cité :

- très peu de données disponibles sur les RGF. Celles disponibles sont parfois vieilles de plus de 20 à 40 ans ;
- institutions de recherche en veilleuses depuis plus de 20 ans ;
- non validation du rapport national dans le pays faute de moyens et de temps.

En ce qui concerne l'état des RGF de la RDC, Monsieur MALELE a souligné que la RDC dispose de 36 espèces forestières considérées comme importantes et 15 eespèces d'arbres et d'arbustes méritant des actions prioritaires. Cependant, plusieurs menaces pèsent sur les RGF à savoir : l'agriculture itinérante sur brûlis, la carbonisation, collecte de bois de chauffe et feu de brousse, et exploitation minière artisanale (activités villageoises), l'exploitation artisanale du bois, l'exploitation artisanale du bois, expansion des infrastructures et agriculture industrielle et les feux de brousse biannuels. Malgré ces menaces, le pays a pris certaines mesures pour la conservation des RGF *in situ.* Environ 9% du territoire national soit 20 M d'ha. Et plus de 594 ha sont conservés *ex situ.*

En vue d'une gestion durable de RGF en RDC, il y a nécessité de:

1) renforcer les capacités humaines, scientifiques, techniques et financières des institutions impliquées (ICCN, DGF, DIAF, DCN, DRH);
2) Créer un herbarium national coiffant l'ensemble des herbaria existants;
3) Relancer les études systématiques, écologiques et sylvicoles des espèces forestières de différents écosystèmes forestiers de la RDC;
4) Mettre en place une structure locale (cellule) chargée du suivi et de la coordination de toutes les actions en faveur des RGF dans le pays.

En perspectives :

- Le nouveau code forestier a introduit quelques innovations qui favorisent une gestion durable des forêts en général et des RGF en particulier.
- Face aux menaces qui pèsent sur les RGF, on devrait s'accorder pour leur gestion en partenariat dans la sous région.
- Les fenêtres possibles pour le développement de partenariats devraient se situer à toutes les étapes de gestion et de l'exploitation des RGF, incluant : la connaissance, la recherche, la protection, la conservation, l'aménagement, la restauration, la promotion et l'utilisation rationnelle, etc.

4.3 Présentation des projets et réseaux sur l'étude de la diversité génétique intra-spécifique en zone Guinéo-Congolaise

Cette présentation a été faite par le représentant de Bioversity. L'orateur est passé en revue les projets et réseaux sur l'étude de la diversité génétique intra-spécifique en zone Guinéo-Congolaise. Comme exemples des projets, il a cité :

- le projet de l'Organisation Internationale du Bois Tropical (OIBT) sur la traçabilité du bois financé par le gouvernement allemand et qui couvre plusieurs pays. L'objectif de ce projet est de lutter contre les coupes illégales du bois et la fraude, et d'utiliser les outils moléculaires pour déterminer l'origine du bois ;
- le projet « Congo Bassin » financé par le Fonds Forestier du Bassin du Congo (FFBC) et qui couvre le Cameroun, le Gabon et la RDC et vise à prévenir et gérer les conflits entre les populations locales et les concessions forestières ;
- le projet SARFOGEN^{+} qui vise à réactiver le Réseau scientifique autour des RGF. Il concerne les Plantes médicinales et fruitières. On procédera à l'identification de scientifiques intéressés par l'étude de la diversité génétique via des outils moléculaires au niveau des différents pays et les propositions de projets scientifiques seront également faites.

4.4 Présentation du canevas pour l'identification des besoins et priorités pour action en vue d'une utilisation et gestion durable des RGF

Le canevas pour l'identification des besoins et priorités pour action en vue d'une utilisation et gestion durable des RGF a été présenté par le Dr. Albert Nikiema. Il était question d'identifier les

besoins et priorités sur cinq thèmes à savoir : l'état de connaissances sur les RGF, utilisation/gestion/conservation, programme de recherche, développement des capacités et politiques/institutions/législations. Pour chaque thème, il s'agissait de relever les acquis, les contraintes, les besoins et priorités et la collaboration régionale, internationales et partenaires. Le guide pour l'élaboration du rapport synthèse sous-régional a aussi été présenté à cette occasion.

Points de discussion suite aux différentes présentations des pays

Les points discutés après la présentation des rapports nationaux par les représentants des pays ont porté sur : le degré d'implication des différentes parties prenantes au niveau national dans le processus d'élaboration du rapport national, la finalisation et la diffusion du rapport national dans certains pays, ainsi que la collaboration entre les points focaux CDB et les PF RGF pour la synergie des actions.

5.0 Travaux en groupe

Les travaux en groupe ont porté essentiellement sur l'identification des besoins et priorités nationales pour action en vue de d'une utilisation et gestion durable des RGF. Une synthèse des résultats des travaux en groupe sur ce sujet est annexée au présent rapport.

6.0 Recommandations

Au terme des échanges, les participants ont recommandé :

- Au Burundi, la RDC, la Guinée Equatoriale, le Tchad et Sao Tomé et Principes de proposer leur feuille de route pour la finalisation de leur rapport national ;
- Au Cameroun, Gabon, Congo et RCA de diffuser largement leurs rapports ;
- A la FAO d'élaborer et publier en collaboration avec la COMIFAC la synthèse sous régional sur l'état des ressources génétiques forestières en Afrique centrale ;
- Aux PF CDB et RGF de renforcer leur collaboration et instaurer un cadre de concertation en vue d'une prise en compte de la gestion durable des ressources génétiques forestières dans les plans nationaux de gestion de la biodiversité;
- A la FAO et la COMIFAC de prendre les mesures nécessaires en vue d'accompagner les pays dans la mise en œuvre des besoins et priorités qui ont été identifiés ;

- A la COMIFAC de veiller en sorte que les besoins/priorités d'amélioration des connaissances des RGF en Afrique centrale soient intégrés dans le rapport sur l'Etat des Forêts de l'Afrique centrale publié par l'OFAC/COMIFAC.

7.0 Cérémonie de clôture

La cérémonie de clôture a été ponctuée par le mot de remerciement de Monsieur Albert NIKIEMA, qui au nom de la FAO a remercié les participants pour leurs contributions et participations actives aux travaux. Il s'est dit satisfait par l'atteinte des objectifs de l'atelier et a exhorté les Points Focaux sur les ressources génétiques forestières de prendre les dispositions nécessaires pour la mise en œuvre de leur feuille de route en vue d'accélérer la finalisation de leur rapport national sur les RGF.
Il a tenu à remercier :

- la COMIFAC pour sa contribution dans la Co-organisation qui a permis la participation à l'atelier du groupe de travail sur du GTBAC sur la Biodiversité participation.
- Bioversity International pour leur participation et contributions.

ANNEXES

ANNEXE 1 : Programme de la réunion

Jeudi 6 Août	**Arrivée Libreville - Gabon**
	Lieu de l'atelier : FAO, Cité de la Démocratie, Villa 36
Vendredi 7 Août	
8h30 – 9h	Enregistrement
9h – 9h30	Ouverture officielle – Objectif et programme de l'atelier
9h30 – 10h30	Présentation des résultats clés et des recommandations des rapports de pays sur les RGF (*Par les Points Focaux Nationaux*)
10h30 – 11h	Pause café
11h – 12h 30	Présentation des résultats clés et des recommandations des rapports de pays sur les RGF (suite et fin)
12h30 – 14h	Déjeuner
14h – 15h	Présentations de l'ébauche de rapport régional et du processus proposés pour son examen et sa finalisation.
15h – 16h	Amendements et adoption de la partie du rapport décrivant l'Etat des RGF en Afrique Centrale
16h – 16h30	Pause café
16h30 – 18h	Identification des besoins et priorités de l'Afrique Centrale sur les RGF (en plénière)
Samedi 8 Août	
8h30 – 10h30	Identification des besoins et priorités de l'Afrique Centrale sur les RGF (en plénière)
10h30 – 11h	Pause café
11h – 12h30	Identification des besoins et priorités de l'Afrique Centrale sur les RGF (en plénière)
12h30 – 13h30	Pause déjeuner
14h – 16h	Présentation et synthèse des résultats des travaux sur les besoins et priorités
16h – 16h30	Pause café
16h30 – 18h	Recommandations sur les étapes futures et le rôle des parties prenantes et
	des partenaires (eg *COMIFAC, FAO, Etats*) ?
18h	Cérémonie de clôture et fin des travaux

ANNEXE2:Note de concept de l'atelier

Atelier sous-régional
"Etat des ressources Génétiques Forestières en Afrique centrale »
Libreville, 7 – 8 septembre 2012

Contexte et justification

La diversité génétique est la base de l'évolution des espèces d'arbres forestiers et de leur adaptation au changement climatique. La conservation des ressources génétiques forestières (RGF) est dès lors, fondamentale car elles représentent une ressource unique et irremplaçable pour l'avenir. La gestion des ressources génétiques forestières ne peut être efficace que si elle fait partie intégrante des programmes et activités de gestion durable des forêts. Il est cependant reconnu que l'absence d'informations conséquentes aux niveaux global, régional et même national dans certains cas, limite la capacité des pays et de la communauté internationale à intégrer la gestion des ressources génétiques forestières dans les politiques. C'est pourquoi la Commission des Ressources Génétiques pour l'Alimentation et l'Agriculture (CRGAA) de la FAO a reconnu l'urgence d'une conservation et d'une utilisation durable des RGF et a demandé à la FAO de préparer le premier rapport sur l'Etat des Ressources Génétiques Forestières mondiales à soumettre à la commission en sa quatorzième session en Avril 2013.

Le présent atelier est organisé dans le cadre de l'Elaboration dudit rapport et regroupera les Points Focaux Nationaux sur les Ressources Génétiques Forestières que d'autres acteurs importants intervenant dans la gestion et l'utilisation des RGF en Afrique centrale, notamment les membres du Groupe de travail de la COMIFAC sur la biodiversité (GTBAC).

Objectifs de l'atelier

- Partager les conclusions des rapports nationaux des pays de l'Afrique de l'Ouest sur l'Etat des Ressources Génétiques Forestières.
- Identifier les besoins et priorités pour action en ressources génétiques forestières au niveau régional
- Formuler des recommandations pour des actions futures.

Participants

Les participants sont principalement identifiés parmi les **Points Focaux Nationaux sur les Ressources Génétiques Forestières, les membres du GTBAC et d'**acteurs impliqués dans la gestion des ressources génétiques forestières.

Date et lieu

L'atelier aura lieu du 7 au 8 septembre 2012 dans la salle de réunion du Bureau sous-régional de la FAO pour l'Afrique centrale, Cité de la Démocratie, Villa 34, Libreville, Gabon.

Informations et renseignements :

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ANNEXE 2 : Liste des participants

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12	Mike IPANGA	RDC	Point Focal CDB	mikeipanga@yahoo.fr
13	Sébastien MALELE		Directeur des Forêts	semalele@yahoo.fr
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15	Hamid Taga	Tchad	Directeur Adjoint des forêts et PF RGF	hamidtaga30@yahoo.fr
16	Habib GADEMI		Point Focal CDB	hgademi@hotmail.com
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19	Albert Nikiema	FAO, Rome	Officier Forestier	Albert.nikiema@fao.org
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22	Jérôme Duminil	Belgique	Service Evolution Biologique et écologie	jduminil@ulb.ac.be

ANNEXE 3 : Allocution du Représentant de la COMIFAC

Monsieur le Représentant du Ministre de l'Economie, de l'Emploi et du Développement Durable de la République Gabonaise,

Monsieur le Représentant de l'Organisation des Nations Unies pour l'Alimentation et l'Agriculture (FAO),

Distingués Points Focaux RGF,
Chers membres du GTBAC,

Mesdames et Messieurs,

Le Secrétaire Exécutif de la Commission des Forêts d'Afrique Centrale (COMIFAC) aurait bien voulu être personnellement présent à cette réunion. Mais, pour des raisons de contraintes de son agenda, il n'a pas pu faire le déplacement de Bangui ; ce dont il s'en excuse. Il m'a donc chargé de prononcer cette allocution en son nom.

C'est ainsi pour moi un réel plaisir et un honneur de prendre la parole en cette circonstance solennelle d'ouverture des travaux de l'Atelier sous-régional sur l'état des ressources Génétiques Forestières en Afrique centrale.

Qu'il me soit permis d'exprimer au nom de Monsieur Raymond MBITIKON, Secrétaire Exécutif de la COMIFAC la gratitude de cette institution au Gouvernement Gabonais, qui a bien voulu accepter d'abriter ces assises et surtout pour l'accueil chaleureux dont les délégations ont bénéficié depuis leur arrivée à Libreville.

Je voudrais aussi saisir cette occasion, pour souhaiter à tous les participants qui ont bien voulu faire le déplacement de Libreville, une cordiale bienvenue et un agréable séjour en terre gabonaise.

C'est dans cette même veine, que j'adresse aussi nos remerciements à la FAO qui a bien voulu que cet atelier se tienne en marge de la quinzième réunion du Groupe de Travail Biodiversité d'Afrique Centrale (GTBAC).

Mesdames et Messieurs,

Les écosystèmes des pays de l'espace COMIFAC renferment une biodiversité exceptionnelle qui constitue un potentiel inestimable pour le développement socio-économique de la sous-région. Cette sous-région abrite le second bloc continu des forêts tropicales avec plus de 200 millions ha après celui de l'Amazonie. Plus de 110 millions de personnes dépendent directement ou indirectement des ressources génétiques forestières pour leur survie dans l'espace COMIFAC d'où l'intérêt manifeste des pays membres de la COMIFAC dans ce processus d'élaboration des rapports nationaux sur l'état des ressources génétiques forestières.
Ces rapports devront permettre de définir les priorités futures pour une gestion durable des ressources génétiques en Afrique centrale. La COMIFAC entend contribuer à l'élaboration de la synthèse sous-régionale sur l'état des ressources génétiques forestières en Afrique centrale. Ainsi, nous souhaitons qu'au cours de cette rencontre, des besoins et priorités des pays soient clairement définis.
Sur ce, je souhaite plein succès aux échanges.
Je vous remercie de votre aimable attention.

ANNEXE 4 : Allocution du Représentant de la FAO au Gabon et Sao Tomé&Principes

Allocution de Dr Lamourdia Thiombiano
Représentant de la FAO pour le Gabon et Sao Tome & Principe, Coordonnateur du Bureau pour l'Afrique Central

Monsieur le représentant du Secrétaire Exécutif de la Commission des Forêts d'Afrique Centrale,

Monsieur le Représentant de Bioversity International

Messieurs les membres du Groupe de Travail sur la Biodiversité de l'Afrique Centrale

Chers délégués Points Focaux Nationaux sur les ressources génétiques forestières

Chers participants,

C'est un grand plaisir pour moi de prendre la parole au début de cet atelier pour tout d'abord remercier le gouvernement du Gabon d'avoir accepté abriter cette rencontre et pour son soutien dans l'organisation.

Je voudrais tout particulièrement remercier la COMIFAC qui à travers son Groupe de Travail sur la Biodiversité en Afrique Centrale (GTBAC) s'est engagé avec la FAO pour faire de cet atelier un cadre élargi de concertation des acteurs de la région en matière d'utilisation et de gestion durable des ressources génétiques forestières.

Distingués invités,
Chers participants et Points Focaux Nationaux,

La diversité génétique est la base de l'évolution des espèces d'arbres forestiers et de leur adaptation aux changements. La conservation des ressources génétiques forestières est dès lors, fondamentale car elles représentent une ressource unique et irremplaçable pour l'avenir. La gestion des ressources génétiques forestières ne peut être efficace que si elle fait partie intégrante des programmes et activités de gestion durable des forêts. Il est cependant reconnu que l'absence d'informations conséquentes aux niveaux global, régional et même national dans certains cas, limite la capacité des pays et de la communauté internationale à intégrer la gestion des ressources génétiques forestières dans les politiques. C'est pourquoi la **C**ommission des **R**essources **G**énétiques pour l'**A**limentation et l'**A**griculture de la FAO a reconnu l'urgence d'une conservation et d'une utilisation durable des RGF et a demandé à la FAO de préparer le premier rapport sur l'Etat des Ressources Génétiques Forestières dans le monde, à soumettre à la commission en Avril 2013.
Le présent atelier est organisé dans le cadre de l'Elaboration dudit rapport et regroupe aussi bien les Points Focaux Nationaux sur les Ressources Génétiques Forestières que les membres du Groupe de Travail sur la Biodiversité de l'Afrique Centrale.

Distingués invités,
Chers participants et Points Focaux Nationaux,

Les objectifs majeurs visés au cours de cet atelier seront de :

- Permettre aux Points Focaux de Partager les conclusions des rapports nationaux respectifs sur l'Etat des Ressources Génétiques Forestières.
- Identifier les besoins et priorités pour action sur ressources génétiques forestières en Afrique Centrale.

La participation très appréciée à cette concertation d'acteurs clés tels que le GTBAC et Bioversity International favorisera l'utilisation d'une approche intégrée dans la mise en œuvre ultérieure des actions prioritaires identifiées.

Il vous appartient donc chers Points Focaux , chers Participants de faire de cet atelier un outil utile et efficace pour l'avenir des forêts en Afrique Centrale en contribuant à travers vos débats à faire un diagnostique aussi rigoureux que possible de l'Etat des Ressources Génétiques Forestières en Afrique Centrale et de faires les recommandations appropriées pour combler les lacunes.

Distingués invités,
Chers participants et Points Focaux Nationaux,

Avant de terminer, je voudrais saluer l'engagement et les efforts consentis par les gouvernements et les Points Focaux des différents pays dans l'élaboration des rapports nationaux, qui ont permis d'obtenir des rapports de bonne qualité dans bien de cas.
Je nourris surtout le plein espoir de voir la rencontre de Libreville déboucher sur des conclusions et des recommandations qui permettrons aux pays de l'Afriques Centrale de construire des bases solides pour une gestion et une utilisation durables des Ressources Génétiques Forestières aussi bien au niveau national qu'à l'échelle régionale.

Je vous remercie

ANNEXE 5 : Feuille de route pour la finalisation des rapports nationaux

Burundi	Organiser un atelier de validation du rapport	PF RGF	
	Produire un document final et le transmettre au Ministre en charge des forêts	PF RGF	
	Transmission du document à la FAO	Ministre	
Cameroun	Diffusion du rapport final	PF RGF	Déc. 2012
Congo	Diffusion du rapport final	PF RGF	Déc. 2012
Gabon	Diffusion du rapport final	PF RGF	Déc. 2012
Guinée Equatoriale	Collecte de toutes les données		Oct. 2012
	Enrichir les données et préparer le draft		
	Valider le draft		
	Envoyer le rapport final à la FAO		
RDC	Validation du rapport par un comité restreint	PF RGF	Oct. 2012
	Transmission du document validé à la FAO	Ministre	
	Recherche de financement pour la mise en œuvre des recommandations contenues dans le rapport ;	Ministère	Continue
	Concertation entre différents points focaux impliqués dans la gestion des RGF (ICCN, APA, CDB, RGF, CITES) en vue de synergie des actions	PF RGF	Continue
Tchad	Finaliser le rapport	PF RGF	25 Sept. 2012
	Distribuer la version finale du document au comité technique	PF RGF	27 Sept. 2012
	Organiser un atelier au niveau national	PF RGF	15 Octobre
	Transmission du document à la FAO	Ministre	26 Oct.
	Application des recommandations	Ministère	Continue

ANNEXE 6 : Synthèse des résultats des travaux de groupe sur les besoins et priorités pour l'Afrique centrale

Thèmes	Acquis	Contraintes	Besoins et priorités	Collaborations régionales et internationales /Partenaires
1. Etat des connaissances sur les RGF	- Listes des Principaux moteurs de la déforestation, - Liste des risques pesant sur les espèces - Liste des espèces végétales proposées dans l'annexe III et des espèces végétales inscrites dans les annexes I et II de CITES - Listes des espèces considérées comme importantes - Jardins botaniques et /ou zoologique - Rapport sur l'Etat des Forêts de l'Afrique centrale - Rapports sur la biodiversité - Rapports sur les PFNL (PM) - Herbiers Nationaux - Stratégies et plans d'action nationaux sur la biodiversité - Plans d'aménagement et de gestion des aires protégées ; - Centres d'échange d'information sur la biodiversité (CHM) - Publications scientifiques et rapports techniques - Centres de recherches - GTBAC - Rapport synthèse d'évaluation des UPARA - Réalisation de l'inventaire forestier national - Existence d'une banque de données - Existence de bulletin scientifique - Rapport d'inventaires trop vieux - Existence des arboreta	- Manque de ressource humaine qualifiée - Absence d'une base de données sous-régionale - Absence des données statistiques et d'étude pour évaluer la contribution des RGF au PIB - Centrale de graine non autonome, avec équipements insuffisants - Les inventaires datent de longtemps (les années 70) - Jardins botaniques et arboreta non entretenus, - Moyen financier et technique insuffisant - Manque de volonté politique - Insuffisance sur les valeurs traditionnelles des RGF - Non communication des résultats de transformation des RGF par les compagnies utilisatrices aux populations locales - Faible taux d'inventaire des ressources forestières (16%) - Vaste étendue du territoire national (RDC) - Financement essentielle ment extérieur - Absence de plateforme d'échange - Données anciennes, non actualisées - Insuffisance en ressources humaines	- Promouvoir les inventaires forestiers qui prennent en compte la dimension des RGF - Développer une base de données sur les RGF en Afrique centrale - Redynamisation des arboreta, des jardins botaniques, des vergers à graines - Améliorer les connaissances sur la diversité inter et intra spécifiques sur les RGF - Documenter les connaissances locales sur l'utilisation et la gestion des RGF en relation avec les PFNL - Partager et vulgariser les informations sur les potentiels des RGF - Elaborer un rapport sous-régional sur l'état des RGF - Faire ressortir à travers une étude la contribution des RGF au PIB - Encourager les activités de Recherche forestière - Cartographie des RGF - Développer les indicateurs spécifiques aux écosystèmes et espèces de l'Afrique centrale de gestion durable des RGF - Intégrer les besoins et priorités d'amélioration des connaissances sur les RGF dans l'EDF publié par OFAC/COMIFAC - mise en place d'une base des données régionale	- COMIFAC, FAO - JICA, Musée Royal d'Afrique Centrale de Terviren - ICRAF, ISAR,IRD, GEF - CEPGL, Institut Royal des Sciences Naturelles de Belgique - CPLP , UNESCO - créer une synergie entre les PF des RGF, APA et CDB - CIRAD-Forêt, - universités, organismes, ONGs, Opérateurs économiques - UE, - PNUD
2. Conservation	- Conservation IN SITU - Jardins Botaniques - Herbariums Nationaux - Appui de la communauté international pour une gestion durable des ressources forestières	- Conflits armés - Insuffisance des moyens humains, financiers et matériels - Absence de centre technique national de conservation - Méconnaissance des potentialités	- Mettre en place un réseau des centres de semences pour appuyer les programmes de reboisement, d'aménagement forestier et de domestication - impliquer les populations locales et	- Appui multiforme aux AP transfrontalières - Reconnaissance des efforts de conservation pour la communauté internationale

	- Développement et vulgarisation des meilleures techniques de conservation des RG - Promotion de la conservation in situ et ex situ - Promotion de la domestication de certaines RGF - Existence des aires protégées et des plantations - Création du corps de gardes forêts et inspecteurs environnementaux - Existence des Arboretums - Existence de la centrale des graines - Existence des institutions en charge la conservation - Existence des privés participant à la conservation - Existence des peuplements semenciers - Existence des lois cadres - Existence des codes forestiers, - Appui multiforme aux AP transfrontalières	- Financement des activités essentiellement extérieures - Menaces qui pèsent sur les AP - Conflits entre les conservateurs et les populations riveraines - Faiblesse des activités alternatives en faveur des communautés - Vaste étendue du réseau d'AP - Outils de gestion - Méconnaissance des techniques de conservation - Insuffisance du personnel qualifié - Limite des techniques de conservation existantes - Manque de moyens financiers pour la gestion des AP - Agriculture itinérante sur brûlis - Exiguïté des terres - Changements climatiques - Recherche insuffisante sur les RGF - Insuffisance des capacités humaines et matérielles - Absence de mécanisme de coordination spécifique aux RGF - Manque des plans d'aménagement dans les AP - Insuffisance des agents du contrôle forestier, non équipés et malformé - Application déficiente du plan national sur la biodiversité - Zones conservées soumises à différentes formes de pressions dont celles agricole, pastorale, feu de brousse, coupe de bois et même certaines menacées de disparition	autochtones dans la conservation des RGF - Lutte contre l'exploitation illégale du bois - Capitaliser les techniques de conservation existantes, développer et vulgariser de nouvelles techniques - Créer des banques de gènes - Redynamiser les activités de conservation dans les jardins botaniques - Redéfinir les nouvelles limites des AP - Mener les études sur les valeurs économiques de la biodiversité - Echanges d'expériences avec les autres institutions avancées - Amélioration du système de financement de la conservation des RGF - Transfert des technologies de conservation - Mise en place d'un forum national/régional des parties prenantes à la conservation des RGF - Développer des essais de provenance sur les espèces importantes prioritaires et promouvoir le partage d'information sur ces essais - Prendre en compte la gestion des peuplements semenciers dans l'aménagement et la gestion des concessions forestières et AP - Renforcement des collections dans les arboretums en mettant l'accent sur les espèces menacées - Développer un programme sous-régional sur la gestion et l'amélioration des espèces agroforestières à forte valeur économique	- Renforcer la coopération régionale à travers la COMIFAC - Favoriser l'accès aux voyage et bourses d'études en matière de RGF - Centres de recherche - Universités - Institutions et ONGS de conservations - COMIFAC, FAO, IUCN, UNESCO, FEM, IPGRI, ASARECA, RIAT, RIFFEAC, CEFDHAC, BAD, PNUD, BM, etc.
3. Utilisations /Gestion	- Reconnaissance des efforts de conservation pour la communauté internationale - Renforcement de la coopération régionale à travers la COMIFAC	- Manque d'un système de transformation de la filière bois - Absence d'un programme de développement sur la sécurité alimentaire	- Faire l'inventaire des RGF les plus utilisés - Organiser les filières des RGF et développer des structures professionnelles en la matière	- Tous les partenaires au développement - Transfert des technologies de transformation et valorisation des RGF

	- Appui des bailleurs à travers la FAO pour la conservation des AP - Centre de recherche, Universités - Institutions de conservations, ONGs - Existence des organisations pour l'appui technique et financier : COMIFAC, FAO, IUCN, UNESCO, FEM, IPGRI, ASARECA, RIAT, RIFFEAC, CEFDHAC - Partage des savoirs et connaissances sur la conservation des RGF - Les différents types d'usages de certaines espèces sont connus - Collaboration spécifique intersectorielle	- Méconnaissance du marché local - Déficience dans l'application de la loi sur la transformation du bois à l'exportation - Unités de transformation obsolète - Mauvais état des infrastructures routières, Coût de transport élevé - Manque des unités de transformation des PFNL - Pas d'avantages pour les populations locales et autochtones détenant le savoir sur l'utilisation des RGF - Absence d'un cadre légal sur les ressources génétiques - Difficulté d'accès aux RGF contenues dans les UFA ainsi que leur commercialisation - Manque d'organisation de la filière des RGF - Toutes les ressources à usage multiples ne sont pas valorisées	- Valorisation des PFNL - Evaluation des valeurs commerciales - Renforcer le contrôle des activités d'exploitation forestière - Octroyer des avantages aux populations locales et autochtones qui participent à la conservation des RGF - Implication des CAL dans la gestion de RGF - Intégrer la dimension des RGF dans la création et la gestion des forêts communautaires, - Développer les projets dans le domaine de l'utilisation et gestion des ressources génétiques	- Création d'un centre régional de formation de spécialistes en la matière - CEFDHAC, COMIFAC, FAO, CEPGL, GEF, OAB, OIBT, Centre de recherche/universités - Opérateurs économiques - ONGs
4. Programmes de recherche	- Existence des centres de recherche forestière - Existence des institutions nationales et sous-régionales de Recherche et de formation - Disponibilité du personnel qualifié - Existence des laboratoires - Existence des herbiers nationaux - Collaboration bilatérale, sous -régionale et régionale - Centre de Recherche Scientifique et Technologique (CICTE) - Echange d'information sur certaines espèces dans la sous région - Existence des données de recherche - Existence d'un panel de chercheurs - Existence des programmes de recherche - Biodiversité, connaissance de la diversité floristique et faunique et des moyens de leurs conservations - Valorisation, gestion et transformation des produits forestiers non ligneux	- Programme de formation actuel ne permet pas de satisfaire les besoins actuels du pays - Insuffisance du personnel qualifié pour la recherche sur le RGF - Absence de coordination des programmes de recherche - Insuffisance d'appui pour l'achat du matériel et équipements - Manque de moyens financiers, techniques et matériels - Institutions de recherche en état de léthargie - Budgets insuffisants - Recherche développement insuffisante - Structures de recherche inadaptées - Insuffisance des moyens logistiques, financiers et humains - Médiocrité des conditions de travail entrainant la fuite des cerveaux - Insuffisance des laboratoires adéquats	- Créer des pôles d'excellence de recherché sur les espèces importantes et prioritaires et promouvoir leur fonctionnement en réseau - Promouvoir les formations dans les domaines spécialisés indispensables à l'amélioration des connaissances sur les RGF - Développer un répertoire des institutions/programmes/activités de recherche sur les RGF - Nouer et renforcer les partenariats en vue d'une meilleure recherche - Multiplier les échanges d'expériences - Publier les résultats de la recherche - Création des pôles de chercheurs sur le RGF dans la sous-région	- CIAT - COMIFAC,FAO, IUNC,IRD - Musée Royal des Sciences Naturelles de Belgique - Musée Royal d'Afrique Centrale de Terviren - IRAZ, ASARECA, CTB - Centres et institutions de recherche - Universités/écoles - Interministérielles - ONGs

		- Non valorisation des résultats de la recherche - Pression anthropique sur les zones réservées aux études - Faible collaboration entre les institutions de recherche - Absence de banque de données sur les RGF - Faute des infrastructures convenables/adéquats /idoines pour la recherche		
5. Renforcement/ Développement des capacités	- Ressources humaines formées - Existences des bibliothèques, laboratoires, des collections de herbiers et essences en plein champ - Existence des institutions de formation - Opportunité de formation au niveau national, régional et international - Bureaux et équipements disponibles - Echange d'expériences au niveau transfrontalier - Existence des associations de collecte des PFNL au niveau des AP - Existence des institutions de formation - Organisation des stages et ateliers de formation - Renforcement et développement des capacités - Existence des institution de recherche tels que le CMAR, l'ITRAT, le LRVZ au niveau national - Existence d'un Comité national de tradipraticiens mis en place par l'Etat - Appui de l'Etat au Comité de tradipraticiens - Spécialistes formés - Laboratoires spécialisés et équipés - Services spécialisés - Programmes de recherche - Elaboration des stratégies nationales sur les RGF - Organisations de quelques ateliers de renforcement des capacités et de formation	- Besoins en équipement des centres - Violation systématique de zones de protection par les chasseurs - Insuffisance des ressources humaines en quantité et en qualité - Insuffisance des équipements dans les laboratoires - Manque de matériels didactiques appropriés - Insuffisance des cadres de direction de niveau universitaires et post universitaires - Manque d'encadrement des associations de collecte des PFNL au niveau des Aires protégées - Moyens financiers limités - Manque de connaissance pour la mobilisation des ressources financières - Insuffisance des moyens logistiques et financiers - Insuffisance d'équipement des institutions de formation - Insuffisance de cadres spécialisés - Manque de moyens financiers pour le renforcement des capacités - Insuffisance d'équipements - Manque de moyens financiers - Non respect de certains partenaires au développement des engagements pris - Moyens financiers limités - Non prise en compte de certains	- Mise en place d'une politique régionale de recherche - Développer un partenariat international de recherche - Développer des partenariats avec les universités et centres de formation étrangère - Développer un projet sous-régional de renforcement de capacités en matière de RGF	- ECOFAC, RAPAC,ICRAF,UICN - Université d'Arcadia (USA) - Conservation International (USA) - Amigos de donana (Espagne) - Centres de formations dans la sous-région - WCS, PNUD, FAO, JICA, CTB, ARCOS, BDAC, BAD, BM, PNUD - Opérateurs économiques - UNITAFL

	- Multiplication des descentes sur le terrain - Existence des forêts communautaires et communales	aspects dans le budget de l'Etat - Insuffisance des experts en RG - Insuffisance d'experts en matière d'APA		
6. Politiques /Institutions/ Législation	- Existence des administrations en charge des Forêts - Signature/Ratification de plusieurs Conventions et Accords Internationaux - Existence des Stratégies Nationales APA Et PFNL - Elaboration des plans forestiers Nationaux - Existence d'institutions en charge de forêts et environnement - Existence d'instance politique de Décision (Haut Comité National) - Arsenal Juridique (Forestier Et Environnemental) - Existence des Instruments Techniques de Gestion des RF Au Niveau National Et Sous-Régional - Codes forestier et environnemental	- Organisation des tables rondes avec les bailleurs de fonds - Faible application des textes en vigueur, des clauses internationales - Absence de politique et législation propres aux RGF - Problèmes de traçabilité et certification en matière des RGF - Légèreté dans l'application des textes réglementaires - Faiblesses administratives et problèmes de gouvernance dans la gestion des RGF - Non ratification du protocole de Nagoya sur APA - Poursuivre l'internalisation des directives PFNL/COMIFAC - Insuffisance de prise en compte des RGF dans la politique forestière et environnementale - Absence de loi spécifique sur les APA - Absence d'un document de politique forestière nationale - Absence d'une réglementation spécifique sur le RGF - Absence d'une politique en matière de gestion des RGF - Absence d'une stratégie nationale de gestion des RGF - Faible sensibilisation des décideurs sur l'importance des ressources génétiques	- Reformes juridiques prenant en compte l'évolution des risques liés aux activités anthropiques - Réglementer les activités agricoles et d'exploitations artisanales des mines en relation avec la conservation des RGF - Implication des différentes parties prenantes dans la mise en œuvre des accords et conventions internationaux, politiques et législations nationales dans le secteur forêt-environnement - Créer au sein de l'OFAC une composante sur les RGF - Prendre en compte les RGF dans le processus de formulation et /ou révision des politiques/législations forestières et mettre en place les textes d'application - Elaborer une stratégie et une politique en matière de ressources génétiques - Elaboration d'une loi nationale en matière d'APA - Moyens financier et technique pour la mise en œuvre des lois existantes et leur vulgarisation - Actualiser les codes forestiers - Créer un observatoire régional sur la RGF - Elaborer une stratégie et une politique en matière de ressources génétiques	- Harmoniser les politiques forestières nationales au niveau régional - Développer un partenariat de renforcement des capacités institutionnelles au niveau international - COMIFAC - FAO - Secrétariat CDB - PNUE

Forestry Department

Food and Agriculture Organization of the United Nations

Forest Genetic Resources Working Papers

*Regional Consultation Workshop Report on The State of the World's Forest Genetic Resources for **West Africa***

Ouagadougou, Burkina Faso

Prepared by FAO

December 2012

Forest Assessment, Management and Conservation Division FAO, Rome, Italy
Forestry Department

Working Document FGR/xxx

1.0 Introduction

A regional consultation workshop on the State of the World Forest Genetic Resources was organised by FAO for the West Africa countries on July 2-6, 2012 in Burkina Faso, as part of the preparation process of the SOW-FGR. The workshop was organised in collaboration with the National Tree Seed Center of Burkina Faso and partners such as OECD, The Great Green Wall Initiative for the Sahel and the Sahara, The Permanent Interstate Committee for Drought Control in the Sahel (CILSS), Wallonie Bruxel International and The African Union Commission.

Participants included both National Focal Points (**NFP**) on Forest Genetic Resources (**FGR**) and the Great Green Wall Initiative for the Sahara and the Sahel (GGWISS) as well as important actors in the field of forest genetic resources, operating in the region. The list of participants is presented in annex.

The participation of development partners from the region such as the GGWISS, managed by the African Union Commission (AUC) will later on facilitate integration of the identified regional priorities and needs for actions within national and regional reforestation programmes and projects.

1.1 Objective of the workshop

The objective of the workshop was to:

- Share the findings of national reports of West African countries on the State of Forest Genetic Resources;
- Identify needs and priorities for action on forest genetic resources at the regional level;
- Provide information on the forest seeds certification systems (OECD);
- Identify needs for capacity building in terms of quality seed supply for reforestation programs in the countries of West Africa, particularly in the context of the program to support the GGWISS.

2.0 Results

2.1 General

Height (8) Countries in West Africa participated with National Focal Points on FGR and/or on the Great Green Wall. Countries represented were Benin, Burkina Faso, Chad, Ghana, Nigeria, Niger, Mali and Senegal with a total of 29 participants including seven NFPs on FGR, five NFPs on the GGWISS and experts from partner organizations.

An official opening ceremony was chaired by the Burkina Faso minister in charge of forestry, Prof. Jean KOULIDIATI and the FAO country representative in Burkina Faso Mr Francois Rasolo who welcomed the participants and expressed their support for an effective contribution to the discussions of the workshop.

National Focal Points from six countries (Benin, Burkina Faso, Ghana, Niger, Senegal and Chad) presented the conclusions of their country reports on FGR and received comments and suggestions for improvement. Five reports were still under draft format and will be finalized taking advantage of the discussions and information shared during the workshop.

Similarly NFPs of the GGWISS from Burkina Faso, Niger, Mali, Senegal and Chad presented their work plans highlighting the area of degraded land to be reclaimed, the species to be planted and the quantities of plants and/or seeds required. Discussions highlighted the need to choose species for plantation based on their socio-economic value and preference by local community and their adaptability to the sites conditions.

The OECD secretariat contributed in the workshop with a presentation on the OECD forest propagation material scheme. Presentations from OECD member countries (Burkina Faso, Madagascar, France, Belgium) highlighted the applicability of the scheme at country level and its importance in strengthening the seed systems and related national policies.

The Millennium Seed Bank Partnership (MSBP) of the Royal Botanical of Kew was represented by Dr Moctar Sakandé who presented the “Forest Landscape Africa” initiative and highlighted the link between the success of plantation programmes and the use of quality forest reproductive material. Examples of ongoing fruitful collaboration between the Royal Botanical of Kew and specialized

institutions of the region in the seed sector were mentioned. These institutional collaborations include a strong capacity building component.

Following the presentations on FGRs and the OECD seed scheme, All NFPs and experts attending the workshop were divided in 2 groups to discuss the regional needs and priorities on FGR. Delegates were particularly requested to provide information on the forest reproductive material (eg seeds) distribution system in their country and suggest recommendations for improvement.

Regional priorities for action in West Africa have been discussed during group work sessions and the section below summarizes the priority identified for action in West Africa

2.2 Needs and Priority identified for West Africa

1. Information and knowledge on FGR

- Make assessment of traditional knowledge on use and management of FGR to improve the knowledge base on forest trees and shrub species and taking into consideration the ethno-botany dimension;
- Strengthen the herbarium capacity and support the development of networks and regional data base as a necessary tool to support education, research and improve the knowledge on forest species;
- Improve availability and access to information on FGR by developing a regional database on ecology, botanic and ethno-botanic information on forest trees and shrubs of the region.

The following list of priority species have been discussed and adopted according to eco-zones (Table 1).
This list should be updated as more country reports become available.

Table 1: List of priority species

Eco-zones	Species	Countries
Sahelian zone	*Acacia nilotica*	Burkina Faso, Senegal, Niger, Mali, Tchad, Nigeria
	Acacia senegal	Burkina Faso, Senegal, Niger, Mali, Tchad, Nigeria
	Ziziphus mauritiana	Burkina Faso, Senegal, Niger, Mali
	Balanites aegyptiaca	Burkina Faso, Senegal, Tchad, Niger
	Faidherbia albida	Burkina Faso, Senegal, Niger, Mali, Tchad
soudanian zone	*Adansonia digitata*	Burkina Faso, Senegal, Niger, Mali, Nigeria, Benin, Nigeria
	Anogeissus leicarpa	Burkina Faso, Ghana, Niger, Mali, Nigeria, Benin, Nigeria,
	Azadirachta indica	Senegal, Niger, Mali, Tchad, Nigeria, Benin, Ghana, Nigeria
	Borassus aethiopum	Senegal, Niger, Nigeria
	Diospyros mespiliformis	Ghana, Niger, Tchad
	Eucalyptus camaldulensis	Burkina Faso, Senegal, Niger, Mali, Tchad,
	Khaya senegalensis	Burkina Faso, Senegal, Niger, Mali, Tchad, Nigeria, Benin
	Parkia biglobosa	Burkina Faso, Mali, Tchad, Senegal, Niger
	Pterocarpus erinaceus	Burkina Faso, Ghana, Mali, Senegal,
	Tamarindus indica	Burkina Faso, Senegal, Niger, Mali, Tchad, Nigeria, Benin, Ghana
	Vitellaria paradoxa	Burkina Faso, Senegal, Mali, Tchad, Nigeria, Benin, Ghana
	Ziziphus mauritiana	Burkina Faso, Niger, Mali, Tchad, Nigeria, Ghana
guinean zone	*Acacia auriculiformis*	Ghana, Benin
	Anacardium occidentale	Ghana
	Berhautia senegalensis	Ghana
	Cordyla pinnata	Ghana
	Garcinia kola	Ghana
	Mansonia altissima,	Ghana
	Tectona grandis	Ghana, Benin,

2. Needs and priorities on FGR conservation

For in-situ conservation

- Include *in situ* conservations measures related to forest trees and shrubs in wider national and regional forest resources management and degraded land reclamation programmes;
- Evaluate the contribution of the various national *in situ* conservation and management systems on the state of FGR;
- Improve the knowledge on biology and ecology of important forest trees and shrubs to adequately support the development of standards on management and conservation of the species.

For ex-situ conservation

- Promote development of a network on the conservation of forest germplasm (seeds, tissues, clones, herbarium samples);
- Strengthen countries capacities for seed storage and handling (gene bank, laboratory equipments.);
- Organize training on *ex situ* conservation related issues for scientists and field technicians;
- Strengthen regional and internal cooperation and networking on *ex situ* conservation of FGR.

3. Needs and priorities on Use and management of FGR

- Delineate provenance zones at national and regional levels to allow better matching of seed sources with plantation sites. This will also support the exchange of seeds with the region. Provenance zones will also be a good basis for species populations conservation across their natural range;
- Establish and / or strengthen national seed centres and encourage good cooperation between them in order to improve access to quality seeds;
- Promote development of tree seed supply system at national and regional levels to meet the needs of development and research activities in taking advantage of the West African countries Convergence Plan on Forests;
- Enhance participation of local people in the management of FGR in all forest types and agroforestry systems;
- Develop guidelines for the inventory and management of NTFPs in the context of sustainable FGR management;
- Develop national policy and regulation tools which take particular account of NTFPs to ensure sustainable use of these resources;

4. Needs and priority on research on FGR

- Promote research network on FGR related topics and encourage synergy between research programmes and scientists within West Africa countries;
- Develop conservation and tree improvement programme on the priority species at national level to meet development need for a short and long term horizon;
- Develop regional conservation and research programme on agrofrestry species with strong economic value e.g. *Acacia senegal, Vitellaria paradoxa, Tamarindus indica, Parkia biglobosa, Adansonia digitata;*
- Develop and strengthen research programmes on domestication and bio-prospecting, in particular in relation with the growing needs for food, pharmaceutical products, energy, cosmetics. This will improve the contribution of FGR to the development of local communities and the country economy;
- Develop training modules/curricula that integrates major and varied concerns on FGR management and sustainable uses;
- Strengthen the technical capacity of development actors to enhance participatory management of FGR;

Species requiring top priority action at regional level, on key FGR management topics have been identified and listed below:

Table 2: Species requiring top priority action at regional level

Priority species	Inventory and collection of genetic material		Evaluation		Conservation		Use & genetic improvement		Countries involved
	a	b	c	d	e	f	g	h	
Sahel zone									
Acacia nilotica	x	x					x		Burkina Faso, Senegal, Niger, Mali, Tchad, Nigeria
Acacia senegal	x	x	x	x			x	x	Burkina Faso, Senegal, Niger, Mali, Tchad, Nigeria
Ziziphus mauritiana							x		Burkina Faso, Senegal, Niger, Mali
Adansonia digitata	x		x	x	x	x			Burkina Faso, Senegal, Niger, Mali, Nigeria, Benin, Nigeria
Balanites aegyptiaca							x	x	Burkina Faso, Senegal, Tchad, Niger
Faidherbia albida	x	x			x		x	x	Burkina Faso, Senegal, Niger, Mali, Tchad
Sudan zone									
Parkia biglobosa	x	x	x	x			x		Burkina Faso, Mali, Tchad, Senegal, Niger
Tamarindus indica			x	x			x	x	Burkina Faso, Senegal, Niger, Mali, Tchad, Nigeria, Benin, Ghana
Vitellaria paradoxa	x		x	x	x		x	x	Burkina Faso, Senegal, Mali, Tchad, Nigeria, Benin, Ghana
Khaya senegalensis	x		x	x			x	x	Burkina Faso, Senegal, Niger, Mali, Tchad, Nigeria, Benin
Eucalyptus camalduelensis				x			x	x	Burkina Faso, Senegal, Niger, Mali, Tchad
Guinean zone									
Terminalia ivoriensis				x			x	x	Ghana, Nigeria
Allanblackia parviflora				x			x	x	Ghana
Tectona grandis				x			x	x	Benin, Ghana, Nigeria
Triplochiton sp.				x			x	x	Ghana,

a) Ecological and biological information (natural distribution, taxonomy, ecology, phenology)
b) Collection of genetic material (seeds, herbarium samples, ...) for assessment
c) In situ (population study)
d) Ex situ (provenance and progeny trials)
e) In situ
f) Ex situ
g) Seed and other reproductive material supply
h) Selection and breeding

5. Needs and priorities in supporting Institutions, Policy, legislation and Capacity building

- Develop standard guidelines to help countries integrate FGR management concerns in wider national forest policies and regulations;
- Develop regional mechanism for the implementation of the Nagoya protocol on Access and Benefit sharing that include full dimension of FGR;

- Strengthen National herbaria and their networking with the region;
- Strengthen national capacities on forest genetics;
- Strengthen technical skills of field technicians in the use and management of FGR;
- Organize training with the support of centres of excellence in the region on topics such as:
    - Seed collection and seed stands management
    - Seed technology and conservation
    - Seed distribution and certification
    - Propagation techniques and forest nursery management
- Organize and regulate the seed exchange mechanism in West Africa considering the need for standardized traceability information and required quality for forest reproductive material;
- Develop or update national tree seed catalogue.

1. Priorities and needs for regional cooperation

- Enhance regional collaboration to support delineation of provenances zones at regional level;
- Promote regular consultation and networking of National Tree Seed Centers, Botanical gardens and herbaria to take advantage of existing resources in each country and improve the overall technical capacity in the region;
- Establish collaboration between research institutions and strengthen existing networks on FGR related topics (e.g. species networks, research networks);
- Promote development of a regional tree improvement programme for common priority species.
- Develop regional platform for information sharing on FGR with focus on forest reproductive material (e.g. seeds) exchange, publications .related to FGR;
- Develop a regional strategy on use management and conservation of FGR;
- Develop regional strategic partnership for the preparation and implementation of a regional strategy on sustainable use management and conservation of FGR.

3.0. Follow up

NFPs acknowledge the importance of the first report on the SOW-FGR as a mean to raise awareness on the contribution of FGR to sustainable forest management, sustainable agriculture and food security. They further supported the need that more effort is made at national level to finalize the country reports where needed and to submit it by August 2012.

NFPs have discussed priority species listed in the country reports and suggested regional priority species, which were grouped according to the three main ecological zones of West Africa: Tropical rain & moist deciduous forest (Guinea Congolian zone), Tropical dry forest (Sudanian zone) and tropical shrub land (Sahelian zone). This regional priority species list should be refined as additional country reports from the region become available.

Based on existing infrastructure and investments in the countries for *ex situ* conservation, the NFPs recommended that thematic regional networks are organized and supported to promote *ex situ* conservation of FGR under severe threat and/or of particular interest to the region. Networking of National Tree Seed Centers, Botanical gardens and herbaria should particularly be encouraged to take advantage of existing resources and improve the overall technical capacity in the region.

National Forest Management and Reforestation programmes require tree seeds of sufficient quality and quantities to meet their objectives. However quality tree seeds are often not available in many countries of the region therefore leading to bottlenecks in reforestation programmes or to the use of poor quality genetic material. NFPs recommended that national tree seed unit are established or supported by governments. They highlighted the need that adequate legislations based on international standards such as the OECD Forest Reproductive Scheme are developed to provide appropriate policy tools for the distribution of quality seeds within and between countries. All participants further recommended that the National Tree Seed Center of Burkina Faso, given its good technical equipment capacity and long experience in the tree seed sector serve as a center of excellence to assist other countries in the region with the needed seeds and technical support.

NFPs acknowledge the need that National Forest Reproductive Material Catalogue are developed in each country and that a consolidated regional catalogue be prepared to facilitate and allow better seed exchange within and outside the region.

Research and Tree improvement capacity are still weak in most countries of the region explaining why only limited research on tree improvement have been conducted in the region. Most initiatives on selection and improvement of species in the region were funded by donor supported projects with relative short duration. It is therefore recommended that regional research programmes and or networks targeting regional priority species are developed with the technical support of FAO and other relevant international and regional institutions such as CILSS, ECOWAS.

The NFPs highlighted the need to improve awareness of decision makers at national and regional level on the vital contribution of FGR to meet the actual and future basic needs of the rural and urban

populations in the region in terms of food and nutrition as well as environmental services. The convergence plan on forestry promoted by ECOWAS should be an opportunity to highlight the importance of FGR and its role in contributing to sustainable Forest Management and to promote actions on management and use of FGR.

Participants welcomed the contribution of international partners and regional stakeholders such as OECD, MSB, GGWISS, AUC, CILSS, IUCN, NATURAMA. They recommended that an active role is taken by all of them to follow up the conclusions and recommendations on the regional needs and priorities on FGR. Other important regional organizations who could not participated in the workshop, eg. ECOWAS, CORAF should be informed of the conclusions and of their possible expected contributions.

4.0 Annexes:

1- List of participants (email addresses to be added)

N°	Name	Country	Address
1.	OUADBA Jean-Marie	Burkina Faso	CNRST BP 7047
2.	SANOGO Sidi	Mali	Unité semences centre de recherche Sikasso
3.	BOJANG Foday	Ghana	FAO Regional Office for Africa, Accra
4.	NIKIEMA Albert	Italy	Viale Delle Terme Di Caracalla 00153 Rôme
5.	BA Momar Mbaye	Sénégal	Agence Nationale Grande Muraille Verte
6.	COULIBALY Haoua	Mali	Direction Nationale des Eaux et Forêts
7.	MAISHAROU Abdou	Niger	Grande Muraille Verte
8.	LOMPO Djingdia	Burkina Faso	CNSF/MEDD
9.	COULIBALY Kouloutan	Mali	Direction Nationale des Eaux et Forêts
10.	PODA W. Célestin	Burkina Faso	UICN National
11.	SAWADOGO Bobodo Blaise	Burkina Faso	SP/CONEDD
12.	AWOKOU Simon	Bénin	Direction Générale des Forêts et des Ressources Naturelles
13.	SINA Sibidou	Burkina Faso	Point Focal RGF/CNSF
14.	OUEDRAOGO Moussa	Burkina Faso	CNSF
15.	NGANJE Martin	Burkina Faso	UICN Régional
16.	RAMAMONJISOA Lolona	Madagascar	BP 5091 101 Antananarivo
17.	JACQUES Dominique	Belgium	WBI – SPW – DGO3
18.	DAMPHA Almani	Ethiopia	African Union Commission
19.	DIALLO Ismaïla	Sénégal	Point Focal RGF
20.	OUEDRAOGO Oumarou	Burkina Faso	Université Ouagadougou
21.	BOUILLON Pierre	France	Ministère français de l'Agriculture et de la Forêt
22.	EMECHETA Emmanuel Chukwugekwu	Nigéria	Federal Ministry of Environnement, Abuja
23.	BERRAHMOUNI Nora	Italy	Via delle Terme di Caracalla, Rôme
24.	DOULKOM Adama	Burkina Faso	Directeur des Forêts
25.	ADDA Maman	Niger	CNSF/MH/E BP 578
26.	BALMA Didier	Burkina Faso	Ministère de la Recherche Scientifique et de l'Innovation
27.	OUEDRAOGO Moussa	Burkina Faso	CNSF
28.	ZEBA Idrissa	Burkina Faso	NATURAMA
29.	OBIAW Edward	Ghana	Forestry Commission P.O Box 1457 Kumasi

2. Workshop programme:

08h00 – 09h00	Registration	(CNSF)
Official opening ceremony		
09h00-09h30	Welcome	CNSF
	Introduction speech 1 Introduction speech 2	FAO OCDE
	Opening speech by MEDD	CNSF/MEDD
09h30-10h00	***Coffee break***	
Session on FGR		
10h00-10h15	**Introduction to the NFP presentations**	FAO
10h15-12h45	Country Report presentations by NFPs (15mn by country)	Benin, Burkina Faso, Ivory Cost, Gambia, Guinea Bissau, Ghana, Guinea, Mali, Niger, Nigeria, Senegal, Chad.
12h30-14h00	***Coffee break***	
14h00-14h15	Introduction to the group work	FAO
14h15-16h00	Group work : *Each group should identify needs priorities in relation with the different sections/chapters of the report on the SOW-FGR*	
16h00-16h30	***Coffee break***	
16h30-18h00	Group Work : *Each group should identify needs priorities in relation with the different sections/chapters of the report on the SOW-FGR*	
Day 2 Tuesday 3rd July 2012 (hotel Palm Beach)		
09h00-09h15	Introduction by the Secretariat of OECD	
Day2, section 1		
09h15-09h50	Key definitions used in trade of certified reproductive material *By Dominique Jacques*	
09h50-10h30	Requirements for the development of a certification system for Forest reproductive material *By Burkina Faso*	
10h30-11h00	***Coffee break***	
Day 2 section 2		
11h00-11h45	Presentation on the OECD scheme for the certification of forest reproductive material *By OCDE secretariat*	
11h45-12h15	National certification system for Forest Reproductive Material in Rwanda *By Uganda delegate*	
12h15-13h00	National certification system for Forest Reproductive Material in Madagascar *by Madagascar delegate*	
13h00-14h30	***Lunch***	
Day 2 Section 3		
14h30-16h00	- Legal issues (Group 1 ; *facilitated by the OECD Secretariat)* - Genetic Improvement (Group 2 ; *facilitated by delegate from Madagascar)* - Training (Group 3 *facilitation By Belgium)* - Tree Seed Centre (Group 4 *facilitation by Burkina Faso)*	
16h00-16h30	***Coffee break***	
16h30-17h45	Plenary : *a) Group work presentations* *b) Conclusions and recommendations*	
17h45 end of session		

Day 3 Wednesday 4th July: Field trip to Kaya 100km north of Ouagadougou		
08h00	Departure from the hotel	
	Visit to CNSF seed laboratory and the plant nursery	CNSF/RBG-MSB
	Visit to *Acacia senegal* seed orchard (Kaya)	CNSF/OCDE/WBI
13h00	Lunch	
	Other visits (Kaya local market and/or Laongo)	CNSF
18h00	Retour à l'hôtel	
Day 4 – Thursday 5th July (à l'hôtel Palm Beach)		
Lead - FAO, CNSF, CILSS, RBG-MSB		
08h30-09h00	Introduction on the Great Green Wall Initiative:	FAO et CILSS
09h00-09h30	Presentation on the ECOWAS forestry programme for West Africa and achievements in land restoration and reforestation in West Africa	ECOWAS/FAO
09h30-10h00	Discussions	
10h00-10h30	***Coffee break***	
10h30-12h00	Presentations by countries (By National Focal Points for the GGW) • Priorities on land restoration and reforestation in the countries (targeted area, location, selected species for plantation, seed supply, current status, problems and constraints)	20 mn / presentation • Burkina Faso • Chad • Gambia • Mali • Mauritania
12h00-12h30	Discussions	
12h30-14h00	***Lunch***	
14h00-15h00	Presentation by countries (NFP on the GGW): • Priorities on land restoration and reforestation in the countries (targeted area, location, selected species for plantation, seed supply, current status, problems and constraints)	20 mn / presentation • Niger • Nigeria • Sénégal
15h00-15h30	The Forest Landscape Africa Consortium	Moctar Sacande (MSB)
16h00-16h30	***Coffee break***	
16h30-17h00	Presentation of the Liptako Gourma trans-boundary project idea on by FAO/CILSS/CDEAO (Burkina, Mali and Niger)	Edwige Botoni, CILSS Mr Hama Arba Dialo
17h00-17h30	Discussions	
Day 5- Friday 6th July 2012 (Hotel Palm Beach)		
8h30-10h00	Presentation of group synthesis on needs and priorities on FGR at regional level.	
10h00-10h30	***Coffee break***	
10h30 12h30	Finalization/adoption of the needs and priorities for action of the region to be included in the SOW-FGR	
14h00-16h00	Adoption of the workshop recommendations: - Needs and priorities for action on FGR in West Africa for follow up - Strategic partnership for management and sustainable use of FGR in West Africa : o Role of National, Regional and International programmes and institutions)	FAO and partners
16h30-17h00	Official closure of the Workshop	CNSF /FAO

3. Opening speeches:

Allocution du Représentant Résident de la FAO au Burkina Faso

à l'occasion de la cérémonie d'ouverture de l'atelier régional sur l'État des Ressources Génétiques Forestières en Afrique de l'Ouest

Ouagadougou, 2 au 6 juillet 2012

Excellence Monsieur le ministre de l'Environnement et du Tourisme,
Monsieur le représentant de l'OCDE,
Monsieur le représentant de l'union Africaine,
Distingués invités,
Chers délégué Point Focaux Nationaux sur les ressources génétiques forestières et la grande muraille verte,
Chers participants,

C'est un grand plaisir pour moi de prendre la parole au début de cet atelier pour tout d'abord remercier le gouvernement du Burkina d'avoir accepté abriter cette rencontre et pour les efforts déployés par les responsables et agents du Centre National de Semences Forestières pour contribuer à son organisation.

Je voudrais également remercier tous les partenaires qui se sont engagés aux cotés de la FAO pour faire de cet atelier un cadre de concertation stratégique qui sans nulle doute sera d'une grande utilité pour les pays de l'Afrique de l'Ouest en matière de gestion et de l'utilisation durable des Ressources Génétiques Forestières.

La diversité génétique est la base de l'évolution des espèces d'arbres forestiers et de leur adaptation au changement. La conservation des ressources génétiques forestières est dès lors, fondamentale car elles représentent une ressource unique et irremplaçable pour l'avenir. La gestion des ressources génétiques forestières ne peut être efficace que si elle fait partie intégrante des programmes et activités de gestion durable des forêts. Il est cependant reconnu que l'absence d'informations conséquentes aux niveaux global, régional et même national dans certains cas, limite la capacité des pays et de la communauté internationale à intégrer la gestion des ressources génétiques forestières dans les politiques. C'est pourquoi la **C**ommission des **R**essources **G**énétiques pour l'**A**limentation et l'**A**griculture de la FAO a reconnu l'urgence d'une conservation et d'une utilisation durable des RGF et a demandé à la FAO de préparer le premier rapport sur l'Etat des Ressources Génétiques Forestières dans le monde, à soumettre à la commission en Avril 2013.

Le présent atelier est organisé dans le cadre de l'Elaboration dudit rapport et regroupera aussi bien les Points Focaux Nationaux sur les Ressources Génétiques Forestières que d'autres acteurs importants intervenant dans la gestion et l'utilisation des RGF en Afrique de l'Ouest.

L'atelier régional d'OUAGADOUGOU est le premier d'une série de huit (8) ateliers régionaux prévus à travers le monde et devrait permettre aux pays de l'Afrique de l'Ouest d'identifier les besoins et priorités d'actions sur l'État des Ressources Génétiques et de faire des recommandations pour des actions futures.

La participation d'acteurs et partenaires au développement intervenant dans la région, tels que les points focaux nationaux, impliqués dans la planification et la mise en œuvre de l'Initiative de l'Union Africaine « Grande Muraille Verte pour le Sahara et le Sahel », favorisera l'utilisation d'une approche intégrée dans la mise en œuvre ultérieure des actions prioritaires identifiées.

Excellence Monsieur le ministre,
Distingués invités,
Chers participants et Points Focaux Nationaux,

Les objectifs majeurs visés au cours de cet atelier seront de :

- Permettre aux Points Focaux de Partager les conclusions des rapports nationaux respectifs sur l'Etat des Ressources Génétiques Forestières.
- Identifier les besoins et priorités pour action sur ressources génétiques forestières en Afrique de l'Ouest.
- Informer les participants des pays sur les systèmes de certification de semences forestières en se référant au système OCDE.
- Identifier les besoins en renforcement de capacités pour la production de semences en quantité et de qualité suffisantes pour les programmes de reforestation des pays de l'Afrique de l'Ouest, notamment dans le cadre du programme d'appui à l'Initiative de la Grande Muraille verte pour le Sahara et le Sahel.
-

Il vous appartient donc chers Points Focaux chers Participants de faire de cet atelier un outil utile et efficace pour l'avenir en contribuant à travers vos débats à faire un bon diagnostique de l'Etat des Ressources Génétiques Forestières en Afrique de l'Ouest et de faires les recommandations appropriées pour remédier aux insuffisances.
Avant de terminer, je voudrais réitérer la disponibilité de la FAO à poursuivre son appui technique aux pays dans le cadre de l'élaboration des synthèses régionales sur les Ressources Génétiques Forestières.

Je nourris surtout le plein espoir de voir la rencontre de Ouagadougou déboucher sur des conclusions et des recommandations qui permettrons aux pays de l'Afriques de l'Ouest de construire des bases solides pour une gestion et une utilisation durables des Ressources Génétiques Forestières aussi bien au niveau national qu'à l'échelle régionale.

Je vous remercie

DISCOURS

DE MONSIEUR LE MINISTRE DE L'ENVIRONNEMENT ET DU DÉVELOPPEMENT DURABLE

À L'OCCASION DE LA CEREMONIE D'OUVERTURE DE L'ATELIER REGIONAL SUR L'ETAT DES RESSOURCES GENETIQUES FORESTIERES EN AFRIQUE DE L'OUEST

Monsieur le Représentant de la FAO au Burkina Faso ;
Monsieur le Représentant de l'OCDE ;
Monsieur le Directeur Régional de l'UICN Afrique Centrale et de l'Ouest,
Monsieur le Coordonateur Régional du CIFOR Afrique de l'Ouest,
Monsieur le Secrétaire Général du Ministère de l'Environnement et du Développement Durable ;
Monsieur le Représentant du Président de l'Université de Ouagadougou,
Messieurs les Directeurs Généraux,
Chers Invités,
Mesdames et Messieurs les Participants ;

C'est un réel plaisir pour moi de prendre la parole à cet important atelier régional organisé dans le cadre de l'élaboration du rapport sur l'état des ressources génétiques forestières mondiales.
L'adhésion de notre pays au processus de préparation des rapports nationaux sur l'état des Ressources Génétiques Forestières , initié et soutenu par la FAO, tient à la place de choix que mon Département accorde à la gestion rationnelle des forêts dont la superficie pour toutes catégories de formations confondues est estimée à 13 000 000, ha représentant 49% de la superficie du territoire national.

En effet, L'exploitation des Ressources Génétiques Forestières contribue fortement à la sécurité alimentaire et nutritionnelle, à l'accroissement des revenus des ménages et à l'économie du pays.
Ainsi, la contribution des produits ligneux au PIB, sous la forme de bois-énergie, est de 5,6% soit 209 milliards de FCFA, celle des pépinières forestières de 7,26 milliards FCFA. L'exportation des seuls Produits Forestiers Non Ligneux rapporte certaines années plus de 156 milliards de F CFA à l'Etat et aux acteurs directs et l'activité dans cette filière a contribué à créer un nombre croissant de petites et moyennes entreprises forestières dans la transformation, l'exportation et l'importation.
De même, le développement de l'approche Genre axée sur l'implication effective de la gente féminine à travers entre autres, les filières des produits forestiers non ligneux, la production de plants, les aménagements de parcs médicinaux, la pratique de la régénération naturelle assistée, la récupération de terres dégradées associés à des technique de DRS/CES, ont largement permis d'assurer une amélioration des revenus des différents acteurs.

En dépit de ces importants biens et service que fournissent les forêts, celles-ci subissent une dégradation préoccupante occasionnant annuellement la perte de plus de 110 000 ha et engendrant une érosion de la diversité génétique.

En effet, sur 1915 espèces végétales recensées à ce jour dont 376 espèces d'arbres, d'arbustes et de lianes, on compte 60 espèces ligneuses menacées à des degrés divers en fonction des zones écologiques du Burkina Faso.

Mesdames et Messieurs,
Chers invités,
Chers Participants;

Jamais notre planète n'a été autant confrontée à un rythme aussi effroyable d'extinction estimé à 1000 fois plus élevé que les taux d'extinction connus dans l'histoire de la vie sur la terre.
Aussi, au regard de l'ampleur de la dégradation des nos ressources forestières, amplifiée par les effets du changement et de la variabilité climatique, nous accueillons avec un grand intérêt la présente rencontre, réunissant autant d'experts confirmés en vue de définir les besoins et priorités pour le renforcement des capacités à assurer une gestion concertée, planifiée et rationnelle des ressources forestières, à l'échelle nationale et régionale.

En effet, l'insuffisance ou même parfois le manque de ressources humaines qualifiées et de ressources matérielles appropriées de nos institutions et états, ainsi que l'absence de coordination et de partage de nos expériences respectives concourent à limiter bien souvent la portée et l'impact de nos actions sur le terrain, surtout lorsqu'il est question de problèmes aussi complexes que la gestion des ressources génétiques forestières.

De ce point de vue, je voudrais dans un premier temps reconnaître avec vous la pertinence de l'Initiative de la Grande Muraille verte pour le Sahara et le Sahel, un projet fédérateur et ambitieux dont l'objet est de contribuer à la restauration des terres dégradées et l'amélioration des conditions de vie des populations et que nous avons l'impérieux devoir de réussir la mise en œuvre.

De même, il faut noter que dans le but de doter la sous région Ouest Africaine d'un cadre fédérateur à partir duquel les Etats membres conviennent d'engager leurs actions nationales et régionales en matière de gestion durable des écosystèmes forestiers, la CEDEAO et ses partenaires ont initié l'élaboration d'un plan de convergence pour la gestion et l'utilisation durables des écosystèmes forestiers en Afrique de l'ouest.

Par ailleurs, je voudrais saluer la présence à cet atelier des représentants des organisations de coopération bilatérale, sous-régionale, régionale et internationale que sont le CILSS, La CEDEAO, la Commission de l'Union Africaine, le Mécanisme Mondial, l'ICRAF, le Millenium Seed Bank Partenership, la Wallonie Bruxelles International, l'Union Européenne et bien entendu la FAO au côté des pays suivants : Benin, Gambie, Ghana, Guinée Bissau, Madagascar, Mali, Mauritanie, Niger, Nigéria, Ouganda, Sénégal et Tchad et le Burkina Faso.

Cette importante présence de partenaires traduit bien la prise en compte de la nécessité de fédérer toutes les énergies pour développer des initiatives porteuses au profit des générations présentes et futures.

Aussi, au regard de la modestie des moyens disponibles et des difficultés croissantes de mobilisation des ressources financières, dans un contexte de crise internationale, il est important que les acteurs que vous êtes, fassiez davantage preuve d'imagination en vue de développer des projets fédérateurs, bilatéraux ou régionaux viables, de manière à partager et utiliser rationnellement les moyens financiers et matériels mobilisés.

Monsieur le Représentant de la FAO au Burkina Faso
Chers invités,
Mesdames et Messieurs les Participants;

La gestion durable de nos ressources génétiques forestières est un impératif si nous voulons continuer à faire face efficacement aux importants besoins d'une population sans cesse croissante, sans pour autant compromettre l'avenir des générations futures.
Pour sa part, le gouvernement du Burkina Faso, par ma voie s'engage à œuvrer à poursuivre et renforcer les efforts visant à assurer la conservation et l'utilisation durable des ressources forestières, et à s'inscrire dans les actions à caractère régional, portées par les organisations de la sous région et soutenues par nos partenaires techniques et financiers.

Je ne saurai terminer mon propos sans témoigner ma profonde reconnaissance à la FAO pour la confiance faite au Burkina Faso et pour les appuis techniques et financiers ayant rendu possible la conduite à terme du processus d'élaboration du rapport sur l'état des ressources génétiques du Burkina qui a fait l'objet récemment d'une approbation du Gouvernement en Conseil des Ministres.
Je voudrais par ailleurs saisir l'occasion pour saluer les efforts des institutions régionales et multilatérales ici représentées qui accompagnent les pays de la sous région dans leurs programmes respectifs de préservation des ressources forestières pour le bien être des populations locales.

Tout en souhaitant un plein succès à vos travaux, je déclare ouvert l'atelier régional sur l'état des ressources génétiques forestières en Afrique de l'Ouest.

Je vous remercie.

Forestry Department

Food and Agriculture Organization of the United Nations

Forest Genetic Resources Working Papers

*Regional Consultation Workshop on Forest Genetic Resources in **Asia***

Kuala Lumpur, Malaysia

Prepared by FAO in collaboration with APAFRI and Bioversity International

October 2012

Forest Assessment, Management and Conservation Division FAO, Rome, Italy
Forestry Department

Working Document FGR/xxx

1.0 Programme and participants of the workshop

The regional synthesis workshop for Asia was organized in Kuala Lumpur, 12-14 September 2012 by FAO, in collaboration with APAFRI and Bioversity International. The programme of the workshop consisted of presentations of key findings and recommendations in the country reports by the national focal points; group discussions by sub-region to identify common achievements, constraints and action needs; and joint discussions to synthesize regional priorities and action needs in the conservation and management of FGR. The programme of the workshop is in Appendix 1.

National focal points of SoW-FGR from 12 countries attended the workshop. Two members of the FAO Panel of Experts on Forest Gene Resources, Dr Baskaran Krishnapillay from Malaysia and Dr Wang Huoran from China were invited as resource persons, together with experts from FAO, APAFRI, and Bioversity International. List of participants is given in Appendix 2.

1.1 Opening remarks

Mr Oudara Souvannavong of FAO thanked the countries for their efforts in preparing the SoW-FGR Country Reports. He described the notable achievements in reporting the status of FGR over the past decades. The FAO Panel of Experts on Forest Gene Resources, established in 1986, advises countries of the world on priorities for action in conserving and managing FGR. In Asia, efforts to assess, conserve and manage FGR sustainably started more than 20 years ago, and the SoW-FGR process, although first of its kind, has a solid foundation in the region.

A series of workshops in preparation for the SoW-FGR report was held in Asia, in years 2008, 2009 and 2011. The needs and priorities identified by the countries will form the basis for the Global Plan of Action FGR that follows the global SoW-FGR report. In that sense, completion of the Country Reports is not an end but rather a beginning – in the next phases, findings of the reports need to be analyzed and synthesized to define actions for improved conservation and sustainable use of FGR.

The next and remaining steps in the completion of the SoW-FGR report include:

- A review of the draft SoW-FGR Report by the Intergovernmental Technical Working Group on FGR (ITWG-FGR) in January 2013;
- Presentation of the Report to the CGRFA in April 2013;
- Presentation of the Report to the Committee on Forestry (COFO), the United Nations Convention on Biological Diversity (CBD), and the United Nations Forum on Forests (UNFF) in 2014.

Dr Sim Heok Choh of APAFRI and Mr Hong Lay Thong of Bioversity welcomed the participants to the workshop and to Kuala Lumpur. They recognized the achievements of the Asia Pacific Forest Genetic Resources Programme (APFORGEN), which was established in 2003 with support from APAFRI, Bioversity and FAO, and has 14 member countries in the region. National focal points of APFORGEN have over the years prepared detailed reports on the status of FGR in their countries, which created an important foundation for the SoW-FGR process in the region.

2.0 Findings and recommendations from the Country Reports

China

Dr Zheng Yongqi, Chinese Academy of Forestry

Collecting and conserving FGR is considered a long term effort that contributes benefits to the public. Research needs include better understanding of the resources, including those contained in *in situ* conservation areas; species prioritization; development of technical standards for FGR management; monitoring of the status of FGR; development of technologies for *ex situ* conservation; biotechnology; gene discovery; and innovative product development. A specialized research and development institution on FGR is needed to coordinate collection, research and policy support related to FGR. Use of FGR is constrained by inadequate supply of quality seed; lack of technical support and market guidance for farmers to diversify species choices; lack of diversity in breeding programmes; and limited development of new varieties.

Policy and institutional frameworks should be strengthened by establishing a central agency to oversee FGR management and use; a national cooperative network on FGR; and by developing specific legislation on FGR and mechanisms for access and benefit sharing. Effective information systems are also needed to support sustainable use of FGR. Inadequate and project-based funding

dominate in FGR conservation and management activities, and longer term programme-based funding should be strived for. In future China could be more actively involved in regional and international collaboration, and move from a support receiver towards own investments in collaboration.

Discussion

- China is being too humble in recognizing their role in the region as they have been involved in valuable South-South collaboration. Could China provide its know-how and financial support to other countries in the region?

    - Collaboration specifically on FGR issues is still very limited. Currently there are no long term mechanisms to support such collaboration, and the work is project-based. Investments in conservation are often seen as having no return and are therefore less popular.

India

Dr N. Krishna Kumar, Institute of Forest Genetics and Tree Breeding

Nationwide Forest Surveys and Botanical Surveys of India have yielded information on the country's vast FGR. In total 272 species, almost 10% of all known species in the country, were prioritized through different priority setting processes. All these species are actively managed for productive gains. In total 195 of the species are also prioritized for environmental and social values, 261 species are considered threatened and genetic variability has been evaluated for 104 species. Non-timber Forest Products are very important and estimated to yield 70% of forestry revenue. Among others, medicinal plant conservation areas have been established to protect these valuable resources.

Action needs in FGR conservation and sustainable use include taxonomy studies, monitoring and evaluation of the resource, strategies for species management and recovery, monitoring of invasive species, and preparing for climate change. Establishing new conservation areas and creating connectivity among the existing ones are restricted by limited land availability and resistance of local people towards expansion of protected areas. Incentives need to be created to support sustainable resource use and domestication instead of extractive practises. Studies on economic valuation of FGR goods and services, improved management of trees outside of forest, and traditional knowledge can contribute to sustainable use and increased benefits of FGR. Quality and supply of germplasm for plantations remains a constraint. More than half of the seed come from unregistered sources.

Institutional capacity in FGR conservation and sustainable use could be improved through a national policy on FGR; establishing a nodal agency to coordinate all FGR related efforts; and developing integrated database on FGR.

Preparation process of the Country Report included two consultative workshops: one on Strategies for formulation of Forest Genetic Resources Management Network, and one national Stakeholders' Workshop.

Discussion

- The main shortcomings include lack of adequate financing, difficulty in species prioritization, and limited regional and international networking. Consolidating the numerous FGR activities in a holistic way remains is an important challenge.

Indonesia
Dr Agus Sriyadi Budi Sutito, Directorate General of Forest Protection and Nature Conservation

Indonesia defines FGR as various forms of wild life, plants, fungi and micro-organisms. Use of forest resources is regulated by numerous licences. Non-Timber Forest Products such as bamboo and rattan are of high importance. Specific research and development activities to support conservation and sustainable use of FGR remain very limited, and knowledge of the resources is poorly documented. There are no specific species conservation programmes. Many ecosystems are not covered by the protected area network. *Ex situ* conservation is dominated by arboreta, and breeding and nursery production focus on commercial purposes with a limited diversity of species. Discrepancies in land use policies and tenurial conflicts further challenge sustainable resource use. A holistic approach to resource conservation needs to be adopted. More tangible benefits for the people from FGR must be created to support sustainable resource use. Regional networking on specific species would be beneficial.

A Genetic Resources Management Bill has been developed and is undergoing the legislative processes, but its completion may still require long time. Specific regulations on FGR are still lacking. A national committee on genetic resources exists under the Ministry of Agriculture, but it focuses on agricultural crops. As a result of the SoW-FGR process, a new unit on FGR was established under the Ministry of Forestry. The country is hoping for guidelines on how to develop national strategies and action plans on FGR.

The preparation process of the SoW-FGR included establishing an advisory committee. National working group could not be established because of lack of resources. The Country Report was prepared mainly as a desk study but included several consultation meetings with different stakeholder groups.

Philippines
Dr Elpidio Rimano, Ecosystems Research and Development Bureau (ERDB)

Action needs for *in situ* conservation based on the comprehensive Country Report include studying endemic and economically important species, periodical assessments of the resource base, habitat rehabilitation, management of biodiversity in non-protected areas, and effective information management systems. Socio-economic and cultural practices, their impact on FGR, economic valuation studies and extension programmes are needed to support sustainable FGR use. *Ex situ* conservation and tree improvement efforts need to be supported by developing a database on priority species, promoting the use of native species and developing mass propagation for NTFPs.

Discussion

- What benefits does the government expect from REDD+?
    - Plantations for C sequestration are planned to contribute to REDD+

Nepal
Dr Hemlal Aryal, National Forest Division, Department of Forests (DOF)

Nepal has prioritized 61 tree species. In total 49 tree species are threatened. Genetic variability has been partially evaluated for 7 tree species. Generally, policies and programmes on FGR are inadequate, considering the number of threatened flora. There are also no specific national programmes on FGR. Protected areas do not cover important ecosystems very well, and where seed stands exist, they are inadequately managed. Conservation needs include a reassessment of forest resources, monitoring of FGR, and assessing genetic erosion. Many species are also conserved on farm, and incentive policies are needed to support these conservation efforts. *Ex situ* conservation tends to be considered a lower priority than *in situ* conservation. Many breeding seed orchards exist, but materials and activities are not well documented. There is no gene bank on FGR in the country. Tree improvement programmes and new breeding seed orchards need to be established for priority

species. More effective mass propagation is needed to supply for tree plantations. A botanical garden for high mountain species is also needed.

Seed cooperatives enable good seed delivery systems, and information is also effectively transferred along with seed. However, linkages between seed producers and seed suppliers are weak, as are coordination and control of quality seed supply. A new framework is needed to regulate tree seed supply, and seed cooperatives need strengthening. The knowledge of local people on FGR is not well recognized, and mechanisms for identifying the rightful holders of resources and information are weak. A formal mechanism to settle disputes is lacking. Access and benefit strategy needs to be developed and local capacity in understanding and managing intellectual property issues needs strengthening.

Discussion

- What are the specific roles of seed cooperatives, especially for non-commercial species? India is planning community seed orchards and is interested in similar approaches.
    - Communities are licensed to manage seed resources. The cooperatives include the relevant stakeholders from the government, the farmers and private enterprises. The government has knowledge of the seed stands for non-domesticated species and such information can directly benefit the farmers. There is a need to facilitate the seed supply mechanisms and control undocumented seed.
- Does *Dalbergia cochinchinensis* (a proposed CITES species) grow in Nepal?
    - There are two native *Dalbergia* species, *D. latifolia* and *D. sichuensiensis*
- What is the role of non-protected areas in *in situ* conservation?
    - Non-protected areas can importantly contribute to FGR conservation. One of the plans is to improve community forest management plans so that they integrate conservation activities for specific, locally important species whose populations are declining.

Lao PDR

Dr Chanhsamone Phongoudome, National Agriculture and Forestry Research Institute (NAFRI)

Preparations of the Country Report have been initiated but have not progressed much since 2011 because of lack of funding. General constraints to FGR conservation and sustainable use include lack of a national strategy on FGR and lack of technical capacity. There are no geneticists to train students at the university and only a few taxonomists.

Discussion

- Oudara Souvannavong emphasized that the countries should use the available information for developing the Country Reports. There is no need to collect new data on FGR. The Country Report can highlight major gaps in knowledge and urgent action needs even if little information is available on status of the FGR.

Maldives

Mr Hussain Faisal, Ministry of Fisheries and Agriculture

Development of the SoW-FGR Country Report was initially intended as part of the preparation of the National Forest Programme. Some consultative meetings and surveys were conducted, but preparation of the SoW-FGR Report has not progressed much since 2011. The country focal point has changed since 2011.

Thailand

Dr Suchitra Changtragoon, Department of Research Office, National Parks, Wildlife and Plant Conservation

Forest areas in Thailand have gradually declined, but were relatively stable in the 1990s due to strong measures implemented by the Thai Government. These measures included a ban on logging and an expansion of the area of conservation forests. Priority must be placed on increasing manpower and building capacity for conducting research. Critical areas requiring strengthening include estimates of genetic diversity, surveys of ecosystem abundance and natural regeneration, and surveys of habitat loss.

The country report on forest genetic resources will help to draw the attention of policy makers to the importance and critical status of forest genetic resources. A national forest genetic resources strategic action plan should be set up through relevant stakeholder consultations.

Discussion

- Countries in the region should identify ways to work together to understand the conservation and use status of important FGR of common interest.
- Wildlife conservation and forest use are under the mandate of the same department. Is there any contradiction in practise between these two seemingly contrasting tasks?

- Is it possible to exchange genetic materials with Thailand?
    - In principle exchange of materials is possible. Permission from the Plant Protection Commission is needed and a MOU must be signed to enable exchange.

Bangladesh

Dr Ratan Kumar Mazumder, Forest Department

Protected areas have been designated for *in situ* conservation. A system of co-management with the participation of local people is implemented for the conservation and management of protected areas. Five preservation plots have been established at different hill forest areas for *ex situ* conservation. Constraints include the unavailability of comprehensive information on population diversity of species, and forest species have been severely neglected. Poverty, shifting cultivation and the exploitative use of natural resources also contribute to the loss of FGR in the country. Preservation plots, sample plots and genebanks should be established to help conserve FGR, and a forest certification system should be introduced to promote sustainable forest management. Forest encroachment must be prevented by implementing stringent land leasing laws. Capacity of researchers and technicians on the latest knowledge of FGR, management and conservation methods as well as international collaboration needs to be strengthened.

Discussion

- Certain land types can be leased out, while it often poses FGR under threat. Political conditions and power relations make it very difficult to amend such policies.
    - In India, land is not given out even to private corporations
    - Philippines has several tenurial arrangements for forest land

Sri Lanka

Dr K. M. A. Bandara, Forest Research Centre

Species of socio-economic potential, threatened and endemic species have been little studied and systematic evaluations of conservation values have not been conducted. A logging moratorium is imposed on natural forests but genetic erosion may still continue. No priority setting has been conducted for homegarden or natural forest species, and no species management programmes exist. Genecological zonation could help in FGR conservation but has not been conducted. *Ex situ* conservation is limited. Botanic gardens and arboreta are conserving some of the natural species.

Exotic species are conserved in field gene banks which however are scattered. Accessions are not geographically representative. Threatened and endemic species should also be covered in ex situ conservation efforts. In general conservation efforts suffer from the knowledge on resources and lack of funds. Tree improvement programs have been implemented mainly for plantation species. Species use in homegardens is based on unimproved materials. Genetic variation of commercial species needs to be expanded. Seed centres should also be expanded. National programs on FGR should include characterization of model species, tree breeding, forest restoration and preparation for climate change.

Preparation process of the Country Report included establishment of a national committee, hiring a consultant to prepare the report, and two stakeholder consultations, with financial support from FAO.

Republic of Korea

Dr Kim Yong-Yul, Korea Forest Seed & Variety Centre, Korea Forest Service

The Country report will be completed by the end of 2012. A total of 389 species are classified as rare plant species in the country. Ongoing FGR conservation activities include development of genetic diversity evaluation techniques, genetic marker development, development of long-term seed storage techniques, and systematic surveys of endemic species in Korea. Development of propagation techniques and gene bank construction are also ongoing.

Discussion

- Conservation of tree species with recalcitrant seed is a challenge for many countries in the region. Sharing of knowledge and methodologies would be useful.

Bhutan

Dr Purna Chhetri, Department of Forest and Park Services, Ministry of Agriculture and Forest

Bhutan is a melting pot of genetic diversity of flora from different continents and regions. More than 50% land area is protected, and timber production areas are few. Information on species uses has been compiled, and high numbers of species are used for different food, medicinal and other purposes. Constraints for sustainable use of FGR include lack of knowledge on genetic resources, habitat loss due to development, failure of natural regeneration in logged over areas, lack of knowledge on possible impact of climate change, lack of guidelines on the management of non-

timber forest products, emerging land use conflicts, weak implementation and monitoring of FGR programmes, weak infrastructure for research and data management systems on FGR. The country would require support in solving these problems. Recommendations for future actions include identification and characterization of genetic resources of non-flowering plants, and the strengthening of training and teaching on FGR.

Preparation process of the Country Report included consolidation of results from a series of recent studies and consultation with stakeholders.

Discussion

- It is hoped that the Country Report will help forest managers to understand the need for more information on the resources.

3.0 Concluding remarks on the Country Reports

Oudara Souvannavong concluded the presentation of the key findings and recommendations of the Country Reports by thanking the countries for their efforts. He expressed the hope that the preparation process of the reports was also useful for the countries themselves, quoting an example from the Solomon Islands. The country received a small catalytic support from FAO to prepare the Country Report. It became the first national report of its kind prepared fully by the country itself, without inputs from external consultants, and therefore became source of national pride. The preparation process helped to get the high ranking natural resource management officials to understand the importance of forest genetic resources. The recommendations of the report will subsequently be included in national programs and strategies on natural resources.

4.0 Preparation of a regional synthesis of needs and priorities for action

Ms Riina Jalonen of Bioversity presented a preliminary synthesis of achievements, constraints and action needs in the region as identified in the Country Reports. Purpose of developing regional syntheses as part of the SoW-FGR process is to understand overall status and priorities of FGR conservation and management in the region, and identify common interests, needs, priorities for action. As such the synthesis can contribute to identifying opportunities for exchange and collaboration among the countries; communicating a coherent message from the region to inform global processes; and to better conservation, sustainable use and increased benefits of FGR.

4.1 Sub-regional working groups

Participants formed three sub-regional working groups (East Asia, South Asia and Southeast Asia), with the objective to identify achievements, constraints and action needs in five areas:

- Status of knowledge on FGR
- Management of FGR (including conservation)
- Institutions and policies
- Research, awareness and training
- Regional and international collaboration

The groups were also requested to identify sub-regional priority species for joint action. Species should include indigenous species for FGR conservation and use, not only species with tree improvement focus, and be of interest to several if not all countries in the subregion.

Summary tables of the achievements, constraints and action needs by subregion are given in Appendixes 3-5, and sub-regional priority species in Appendixes 6-8.

Consolidation of the findings

After the sub-regional working groups, one representative from each group met to consolidate the results to a draft regional action plan. The representatives from the groups were Dr Krishna Kumar (India), Dr Suchitra Changtragoon (Thailand) and Dr Zheng Yongqi (China). The draft was presented to the group for discussion and further amendments. The final version is given in Table 1. Regional priority species identified in joint discussion are given in Table 2.

4.3 Discussion on the regional synthesis and action needs

Policy integration and support

- How to get the governments concerned of conservation and sustainable use of FGR? In many countries FGR are new topic and not considered a priority by the government. FAO could encourage countries in conservation and management of FGR and developing national strategies, action plans and policy frameworks.

- Countries are encouraged to make every effort to integrate FGR in all relevant national strategies. This can help get them supported through national and international processes. For example, countries are now preparing to update their National Biodiversity Strategies and Action Plans (NBSAP). FAO has already written to national focal points of CBD to inform them about all the relevant processes that can contribute to NBSAP, including the SoW-FGR. Focal points of SoW-FGR should contact the CBD focal points in their countries and inform them about the work done under the SoW-FGR process.
- Policies on natural resource management are soft in some countries and have not been translated to legislation that could be enforced. There is a lack of policies and regulations to govern the involvement of private sector in FGR use.
- In India the states are required to develop their own forest policies. Moreover, all sectors and development interventions need to integrate forest issues in their strategies and action plans
- FAO has prepared a short, effective advocacy video on the importance of closing the gender gap in agriculture which can be freely downloaded and used for awareness-raising. Could FAO develop similar promotional video on the ecological and socio-economic importance of FGR, based on the findings of the SoW-FGR report, to help in awareness raising among the public and policy makers?

Research needs

- NTFPs are very important for livelihoods, and their conservation and sustainable management require attention. However, NTFPs have not come up strongly in the discussions
- Conserving and supplying propagation material of species with recalcitrant seed are a problem and need a specific focus from research and actions. Very little research has been done on recalcitrant seed, partly because most timber species have orthodox seed.
- What kind of synergies there are between characterization of germplasm, tree improvement and timber tracking? Information collected on one topic could be used for many different purposes.
- Could FAO look specifically into research training and awareness in each prioritized research area, and think of specific interventions?
    - Specific action points or plans should be identified for some of the action needs. Scope of research and training should be widened to include species important for livelihoods and other uses.

Funding

- Research budget in Bangladesh was reduced by 50% over 20 years. In Sri Lanka FGR conservation is given quite high priority, but does not translate into research support. In India forestry receives only about 1% of total federal budget, and within that research budget is very limited. Reforestation and development-oriented activities are more popular than research.
- Biodiversity issues provide a very useful opportunity for integration of FGR considerations. GEF will provide support to the countries to implement their NBSAPs. REDD+ in theory provides funding for sustainable forest management, but quality of management is currently not always well integrated because of the strong focus on carbon only. However, REDD+ is a real funding opportunity that merits attention.
- Lack of funding always comes up as a constraint. In some cases it may be more of an issue of limited resource mobilization. For example, private sector within the country can be a good source of funds. Countries should not only wait for international institutions to act on their behalf.
    - A small community in eastern Bhutan is managing a forest which provides ecosystem services in the form of clean water to a nearby town. The town pays a small amount for the watershed services.
    - Corporate Social Responsibility initiatives are one opportunity to gather funds for FGR activities. However public-private partnership opportunities may be limited with regard to funding FGR activities. Private sector typically expects free research services from the government.
- Forest financing problems are cross-cutting issue. With its partners, FAO recently organized an international conference to assess the current status of forest financing, constraints and opportunities (Organization-Led Initiative on Forest Financing, September 2012, http://www.cpfweb.org/oli/en/).
- Is there going to be support available from FAO for completing the yet ongoing SoW-FGR reports?
    - It will be quite difficult to integrate findings from further Country Report submissions in the global SoW-FGR report, as the global report is scheduled to be completed in the near future. Best way to finalize the reports could be to integrate the efforts done so far in the NBSAPs. Findings can also be later integrated in the REFORGEN database which will be regularly updated.

Species prioritization

- Some knowledge exists on threatened species distributions and status but more is always needed (South Asia)
- For species of wide common interest, much research has usually been done already and resources are available. Priority or urgency of conservation and use activities may therefore be lower (Southeast Asia)
- Species may be important ecologically even if they occupy a small area. Country level prioritization may therefore be the best approach to identify species requiring attention. (East Asia)
- There is a risk in choosing a list of species which in the end no work is developed.
- It does not matter if the list is long. It can serve as an indication of regional consensus for reference or for use e.g. in proposal development.
- *Phyllanthus* sp. is not a priority for the South Asia sub-region but is recognized important in some countries. It is currently under the mandate of the agricultural department in India and therefore not included in the FGR report. (South Asia)
- China has high species diversity and much variation within the country, which makes prioritization difficult. However priority species for sub-regional collaboration can be identified quite easily. (East Asia)
- *Dalbergia* spp. are important to many countries in the region
- Natural teak stands are protected in many countries and more information is needed on the species.
- Medicinal plants should also be considered for priority species lists

5.0 Other presentations

APFORGEN

Riina Jalonen presented results of an earlier survey among APFORGEN national focal points to initiate discussion on ways to activate the network and develop regional collaboration. According to the survey results, strengthening national programmes on FGR, enhancing networking and conservation of priority species were considered by the focal points as the most important objectives of APFORGEN. Focal points had benefitted from the network by receiving information on FGR research and sharing of experiences and good practices. Countries who participated in an ITTO-funded project

on national capacity strengthening on FGR had also clearly benefitted through funding, support for identifying national priorities and tools for advocating the importance of FGR to policymakers. Practical collaboration among researchers in the region had, however, been limited. Awareness of FGR had improved in 90% of all countries that responded to the survey. Lack of concrete action plans and efforts for finding funding were considered as the main constraints for achieving the network objectives.

The network has not been active lately because of lack of funding for activities. Recommendations for enhancing the network on the basis of the survey included (i) designing activities for increasing target-orientation and commitment, e.g. through formulation of action plans, (ii) establishing working groups on topics of common interest such as species-based working groups, tree breeding, development of national programmes, germplasm exchange, access and benefit sharing, and training and education, (iii) developing research collaboration, (iv) including actions to support integration of FGR in wider policy processes, and (v) capitalizing the diverse expertise and roles of the focal points as a resource for the network.

Discussion

- Generally it is difficult to get donors to support regional networks because networking does not produce immediate results, even if they can be important in supporting the member countries in many activities. However, if networks are perceived relevant in supporting policy formulation and implementation, they will be valued. For example, the European Forest Genetic Resources Programme (EUFORGEN) provides important and timely information on species and genetic resources to inform policy processes. It was established to implement the resolutions on FGR conservation and management of the Ministerial Conference on the Protection of Forests in Europe (MCPFE). EUFORGEN is well appreciated in the region and funded by the member countries.
- The East Asia Plant Variety Protection Forum is another example of a successful network. It was established as per the request by the ASEAN who also funds the forum. Activities are hosted by the member countries on a rotational basis. Available funding is channeled to prioritized activities.
- Asia - Pacific Network for Sustainable Forest Management and Rehabilitation (APFNet) was established as per the request by the president of China.

- APFORGEN should seek higher visibility and recognition in the region. Linking it to high level meetings could be one way to gain visibility. For example, APFORGEN has always been invited to attend Asia - Pacific Forestry Commission (APFC).
- Ideally, APFORGEN could evolve in to a regional institute on the conservation and management of FGR
- Working groups could be initiated to identify common interests and establish contacts with people who share the same interests. Working groups could develop joint (research) proposals to attract funding and consolidate collaboration.
- Bioversity and APAFRI are happy to provide technical support to developing joint proposals and research activities which build on the interests and priorities of the countries themselves. They can also help connect with other regional and international networks and programmes such as EUFORGEN.

DNA and stable isotope technologies to fight illegal logging

Dr Marius R.M. Ekué, Scientific Coordinator of the project "Identification of Timber Species and Origins" talked about the use of DNA and stable isotope technologies to fight illegal logging. Illegal logging accounts for more than 50% of wood exported from the Amazon, Central-Africa, South-East Asia and Russia generating annually between US$ 10-15 billion in criminal proceeds. There is a strong policy response to tackle the problem of illegal logging worldwide. Recent legislations (EU Action Plan on Forest Law Enforcement, Governance and Trade, USA Lacey Act, EU Timber Regulation, the USA Lacey Act, etc) are all prohibiting the placement of illegally harvested timber and timber products on the market of consumer countries.

Unfortunately, the lack of practicable control mechanisms to identify the origin of timber and wood products means that an undetermined amount of illegal wood and wood products makes it to the market. Advances in science over the last years have made possible the use of new technologies, namely DNA and stable isotopes, to enhance existing timber tracking systems, which are currently opened to tampering. Genetic markers and stable isotopes use characteristics inherent to the timber instead of externally applied marks. They cannot be manipulated, reducing the possibility of falsifying accompanying chain-of-custody documents and laundering timber from unsustainable and illegal harvests.

Marius showed practical application of the technologies for various tropical species: (1) to check species identity (e.g. mahogany), (2) to control the declared country of origin (e.g. merbau,

mahogany and teak), (3) to control the declared concession of origin (e.g. Sapele and Iroko), (4) to track individual logs (e.g. merbau). To promote the use of such innovative tools at a global level, Bioversity International and the German Federal Ministry of Food, Agriculture and Consumer Protection have initiated the project "Identification of Timber Species and Origins". The project will facilitate the practical application of timber species identification and timber tracking tools using genetic and stable isotope markers for a number of priority timber species. Bioversity International is coordinating network of experts and institutes working with these tools (Global Timber Tracking Network or GTTN) to develop internationally accepted standards for genetic and stable isotopes fingerprinting of timber species, and to develop and maintain an online database with geo-referenced data on genetic structure and stable isotopes of major commercial timber tree species. GTTN will host the database and promote the integrated use of genetic and stable isotope fingerprinting techniques with the existing timber species identification and tracking systems, certification standards, regulations and legislation to curb illegal and unsustainable logging.

Discussion

- Which molecular markers will be used?
    - Mostly chloroplast & nuclear microsatellites and SNPs. RAPDs will not be accepted, and AFLPs may be considered.
- Can anyone retrieve data from the database for comparison?
    - The database will combine together the data, the analyses and interpretation. It will be designed to run analyses on the background and provide the answer to the users with interpretation and confidence interval. The user will not have access to the data used to build the database.
- Many countries are facing the constraint that samples cannot be sent out of the countries without official approval even for research purposes.
    - Bioversity International is drafting a ***data sharing agreement*** that will address also such concerns
    - The contribution of any institutes and research groups will be fully acknowledge on the website
- The same approach has been used in Korea for seed sources identification.

6.0 Conclusions

Oudara Souvannavong emphasized that the key findings and recommendations of the country reports from the region indicate how the reports indeed have very interesting content. They explain important achievements in conserving and managing FGR and include lot of information on relevant national capacities. Lot of common issues and interests were also identified during the workshop, such as funding constraints and capacity strengthening needs. He again expressed his thanks to the countries for their important efforts to prepare the reports. The draft of the global SOW-FGR report will be presented to the Intergovernmental Technical Working Group on FGR (ITWG-FGR) in January 2013. There may be support available for country's representatives from developing countries to attend that meeting.

7.0 Annexes

Annex 1. Table of Regional synthesis of achievements, constraints and action needs

Area	Strengths and achievements	Constraints and weaknesses	Actions to be undertaken
Knowledge of FGR	- Information about species distributions gathered through inventories - Species biology and genetic diversity studied for some species on project basis	- Work has been done on a few, mainly commercial species only, and information on most of the species is still lacking (biology, genetic diversity, genetic erosion) - Lack of coordination and information sharing between people and institutions working on the same species - Research remains site-specific, localized, not comprehensive for a species - Little knowledge about genetic conservation value of protected areas - No systematic monitoring - Lack of long-term funding	- Create species information database to cover distribution, habitat, biology, genetic variation - Establish nodal action points for species to collate information and coordinate action - Make species information available for different stakeholders at different levels, including in local languages
Management of FGR	- National Biodiversity strategies and action plans - Protected area systems cover many species - Plans in place to increase forest and tree cover - Sustainable use of some species integrated in forest management plans (especially for widespread important species) - National research plans on tree improvement - Targeted species-based breeding programmes	- Multiple threats: Fragmentation, encroachment, mismanagement of FGR, fire, grazing, invasive and alien species - Difficulties in creating landscape connectivity because of lack of land availability - Limited knowledge about managing FGR for climate change adaptation and mitigation - Need for more gene conservation stands in different genecological zones - Inadequate integration of FGR management and conservation in national level planning - Insufficient participation of people in managing and conserving FGR - Limited budgets - Lack of technical capacity in tree improvement programmes - No systematic programme for collection, production, distribution and use of quality seed	- Establish land use policy that specifically considers FGR conservation and management, and includes coordinated long term planning of sustainable use of FGR - Develop adequate policy frameworks to address FGR mismanagement - Effective laws and enforcement agencies - Increase livelihood benefits and poverty alleviation through FGR as well as community participation in FGR management - Forest management plans should put greater emphasis on FGR management - Develop technical standards, protocols and documentation for FGR management and conservation - Improve collaboration and networking on FGR C&M approaches - Prioritize species for action - Develop and implement M&E systems for FGR - Identify international channels for financial support (e.g. climate-related funds) - National seed programme to ensure availability of certified seed

Research, Training, Awareness	- National networks available for FGR - FGR-centered institutes handling research - Significant contribution of knowledge from scientists and foresters in FGR research	- Inadequate technical and institutional capacity, including lack of trained manpower to handle FGR - Poor networking at national level among scientists to develop science on FGR - Inadequate use of novel research methodologies in characterization - Lack of infrastructure on research, storage facilities (specifically ex situ) - Lack of funding - No education programs to cover FGR in the forestry sector - Training materials are outdated - Lack of information on local languages	- Increase awareness of policy makers on the importance of FGR - Exclusive outreach programmes on FGR needed - Strengthen technical capacity of scientists by organizing research workshops on recent technologies and advancements and exposure visits - Incentives, recognition, awards for scientists and foresters working in the area - International organizations to support research coordination and enhancement - Develop training modules for FGR - Programme-based multi-objective breeding mechanism - Germplasm exchange mechanisms for research
Policies and Institutions	- Policies and institutional mechanisms as a framework for FGR conservation and management	- Inadequate law enforcement - No specific legal structures to cover FGR - Inadequate policies for stakeholder involvement - Inadequate in cross-sectoral coordination - Lack of access and benefit sharing mechanisms (cf. Nagoya protocol) - Lack of funding	- Establish supportive laws for conservation and sustainable use of FGR and enhance law enforcement - Establish better linkages and mechanisms for coordination and collaboration between agencies in technology, policy implementation, information sharing - Establish participatory mechanisms for FGR conservation, management and planning, and include FGR in livelihood programmes
Regional and International Cooperation	- Information exchange - Database development - Strategies for germplasm exchanges are available - Various networks (APAFRI, TEAKNET, NeemNet, IUFRO, APFORGEN) - International conventions with relevance to FGR (CBD, CITES, UPOV, UNFF, UNFCCC, UNCCD) - Multilateral agreements promoting conservation and sustainable use of FGR	- Lack of institutionalized mechanisms for international networking remain, in spite of facilitation efforts - Networks are not as functional as they could be (meetings, member enrolment, funding etc.) - Lack of policies for IPR protection	- International networking supported and strengthened on research, management and conservation approaches, policy and law issues - Technology transfer at regional level (in situ and ex situ conservation, breeding etc.) - Establish a regional forum for ABS

Annex 2. Table of Regional priority species

Species	Conservation		Exploration and collection		Evaluation		Use and Improvement		Countries
	a	b	c	d	e	f	g	h	
Acacia mangium, auriculiformis, crassicarpa							1	1	India, China, Sri Lanka, Bangladesh, Philippines, Cambodia, Maldives, Thailand, Indonesia
Afzelia spp.	1	1	1	1	1	1	1	1	Vietnam, Lao, Cambodia, Thailand, Myanmar
Albizzia spp.	1	3	1	1	1	1	1	1	India, Bangladesh, Nepal, Sri Lanka, Myanmar, Indonesia, Lao
Aquilaria spp.	1	2	1	1	1	1	1	1	India, Indonesia, Bangladesh, Lao, Cambodia, Vietnam, China, Nepal, Bhutan, Thailand, Sri Lanka, Malaysia
Bamboos	1	1					1	1	India, Indonesia, Bangladesh, Lao, Cambodia, Vietnam, China, Nepal, Bhutan, Thailand, Sri Lanka, Maldives, Malaysia, Japan, Philippines, Korea
Casuarina spp.		2				2	1	1	India, China, Sri Lanka, Bangladesh, Philippines, Cambodia, Maldives, Thailand, Indonesia
Cryptomeria japonica							1	1	Japan, Korea, China, Bhutan
Dalbergia spp.	1	1	1	1	1	1	1	1	Nepal, Bhutan, India, Pakistan, Bangladesh, Sri Lanka, Thailand, Lao, Cambodia, Vietnam , China
Dipterocarpus	1				1				India, Lao, Vietnam, Cambodia, Bangladesh, Philippines, Indonesia, Malaysia, Sri Lanka
Eucalyptus spp.	1	1					1	1	India, China, Sri Lanka, Bangladesh, Philippines, Cambodia, Maldives, Thailand, Indonesia
Gmelina arborea	1	1					1	1	India, Indonesia, Bangladesh, Lao, Cambodia, Vietnam, China, Nepal, Bhutan, Thailand, Sri Lanka
Hopea spp.	1				1				India, Lao, Vietnam, Cambodia, Bangladesh, Philippines, Indonesia, Malaysia, Sri Lanka, Maldives, Thailand
Khaya spp.		1				1	1	1	India, Philippines, Bangladesh, Sri Lanka, Malaysia, Indonesia
Melia spp.	1	1	1	1	1	1	1	1	India, Sri Lanka, Maldives, China, Nepal, Bhutan, Vietnam,Thailand
Phyllanthus emblica	1	1	1	1	1	1	1	1	Thailand, Lao, Bhutan, Nepal, India, Sri Lanka, Bangladesh
Pinus koraiensis	1	1	1	2	1	2	1	2	Korea, China, Japan, Russia
Pinus roxburghii	2	2	1	1	1		1	1	Bhutan, Nepal, India, Pakistan
Pinus kesiya	1	1				2	3	3	Thailand, Lao, Vietnam, Cambodia, Philippines, India
Pinus merkusii	1	1				2	3	3	Indonesia, China, Philippines, Thailand, Lao, Cambodia, Vietnam
Pinus yunnanensis	1	2	3	3	2	2	2	2	China, Vietnam, Lao, Myanmar
Pinus densiflora	1	1	1	1	1	1	1	1	Korea, Japan
Populus spp	1	1	1	1	1	1	1	1	China, Korea, India, Pakistan
Pterocarpus spp.	1	1	1	1	1	1	1	1	India, Indonesia, Bangladesh, Lao, Cambodia, Vietnam, China, Nepal, Bhutan, Thailand, Sri Lanka, Maldives, Philippines, China
Quercus spp	2				1		1	1	China, Korea, Mongolia, Japan, Nepal
Rattan	1	1					1	1	India, Indonesia, Bangladesh, Lao, Cambodia, Vietnam, China, Nepal, Bhutan, Thailand, Sri Lanka, Maldives, Malaysia, Philippines
Santalum album	1	1					1	1	Nepal, Bhutan, India, Bangladesh, Sri Lanka, Thailand, Vietnam , China, Indonesia
Shorea	1			1					India, Lao, Vietnam, Cambodia, Bangladesh, Philippines, Indonesia, Malaysia, Sri Lanka, Nepal, Maldives, Thailand, Bhutan
Swietenia spp.		2				1	1	1	India, Philippines, Bangladesh, Sri Lanka, Malaysia, Indonesia
Tectona grandis	1	3					1	1	Nepal, Bhutan, India, Myanmar, Bangladesh, Sri Lanka, Thailand, Lao, Cambodia, Vietnam , China, Indonesia, Philippines

Legend:

1: High priority; 2: Prompt action recommended; 3: important but less urgent than 1 and 2

a) In situ
b) Ex situ
c) Ecological and biological information (natural distribution, taxonomy, genecology, phenology)
d) Collection of genetic material (seeds, herbarium samples, ...) for assessment
e) In situ (population study)
f) Ex situ (provenance and progeny trials)
g) Supply of seed and other reproductive material
h) Selection and breeding

Appendix 1

Annex 3. Workshop Programme

REGIONAL WORKSHOP ON FOREST GENETIC RESOURCES IN ASIA	
12-14 September 2012, Kuala Lumpur, Malaysia	
Programme	
Tuesday	**11 September**
	Arrival of Participants
Wednesday	**12 September**
8.30 – 9.00	Registration
9.00 – 9.30	Opening - Programme and Objectives of the Workshop (APAFRI, Bioversity, FAO)
9.30 – 10.30	Presentation of key findings and recommendations of Country Reports on FGR
	China, Korea
10.30 – 11.00	**Coffee break**
11.00 – 13.00	Presentation of key findings and recommendations of Country Reports on FGR (Cont.)
	Indonesia, Lao, Philippines, Thailand
13.00 – 14.00	**Lunch**
14.00 – 16.00	Presentation of key findings and recommendations of Country Reports on FGR (Cont.)
	Bangladesh,Bhutan,India,Maldives
16.00 – 16.30	**Coffee break**
16.30 – 17.30	Presentation of key findings and recommendations of Country Reports on FGR (Cont.)
	Nepal,Sri Lanka
Thursday	**13 September**
8.30 – 9.30	Presentation of preliminary results of analysis of country reports and proposed process for identifying needs and priorities for action in sub-regional working groups (Bioversity, FAO)
9.30 – 10.30	Sub-regional working groups to identify needs and priorities for action
10.30 – 11.00	**Coffee break**
11.00 – 13.00	Sub-regional working groups to identify needs and priorities for action (Cont.)
13.00 – 14.00	**Lunch**
14.00 – 16.00	Sub-regional working groups to identify needs and priorities for action (Cont.)
16.00 – 16.30	**Coffee break**
16.30 – 18.00	Presentation of results by sub-regional working groups
Friday	**14 September**
9.00 – 9.30	Information on Global Timber Tracking Network – Identification of timber species and origins.
9.30 – 10.30	Presentation and discussion of draft regional synthesis of needs and priorities for action (Ad Hoc Working Group)
10.30 – 11.00	**Coffee break**
11.00 – 12.30	Presentation and discussion of draft regional synthesis of needs and priorities for action (cont.)
13.00 – 14.00	**Lunch**
14.00 – 16.00	Final synthesis and Closing
16.00	**Coffee**
Participants will leave Friday 14 evening or on Saturday 15 September, according to flight availability	

Appendix 2

Annex 4. List of Participants

	Country	Participant
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Appendix 3

Annex 5. Achievements, constraints and action needs

1) South Asia

Participants: Bangladesh, Bhutan, India, Maldives, Nepal and Sri Lanka

Area	Achievements	Constraints	Actions to be undertaken
Knowledge of FGR	1. Forest inventories, species inventory 50-80% inventoried 2. Improvement of selected species in different stages 3. Status of threatened and endemic species been understood 4. FGR is included in the forest management plans 5. Intra specific diversity understanding is at initial stages	1. In adequate knowledge on species distribution, biology genetic variation for most important tree species (no baseline information) 2. Inadequate knowledge to undertake genetic level research 3. Insufficient infra structure to carry out research and studies 4. Narrow focus on selected few species 5. Lack of capacity and funds to carry out conservation and management 6. No program base approach- mostly project base 7. Patchy information 8. Difficulty to access of information –very scanty 9. Unavailability of FGR information is in vernacular language 10. Ethnic groups are usually conservative beyond the community 11. Knowledge generation is weak	1. Baseline studies on biology and genetic studies and create data bases 2. Enhance capacity building to stakeholders concern 3. Need based management planning 4. Specific budget for FGR 5. Involve the beurocrats and politicians 6. Information connectivity enhance 7. Central databases should be developed 8. Available FGR information has to be translated and communicated in vernacular languages 9. Create incentive based motivation 10. Integrate FGR programs into development framework
Management of FGR	In situ and ex situ 1. PA system established 2. Natural forest harvest is banned of some countries and other countries harvest for internal consumption only 3. Plans in place in increase forest and tree cover in all countries 4. Gene conservation is done by different approaches 5. Tree improvement- few species in progress and at different stages	1. Lands are limited for gene conservation programs 2. Fragmentation, encroachment, illegal logging, conversion of contiguous forests 3. Difficulty to establish corridors 4. Invasive, alien species 5. Changes of forest types due to climate change and allen invasive species 6. Low priority in FGR in national level planning 7. People centric and product enteric management 8. Inadequate funding 9. No systematic program for production collection, certification and distribution of quality seeds, thereby affecting quality seedling production 10. Inadequate technical skill to perform good tree improvement programs 11. Inadequate prioritization of species for TAP regional Cooperation 12. FGR is not included in livelihood programs	1. Define land use policy 2. Control illegal logging and encroachment through policy interventions 3. Coordinated effective long term development planning and supportive law enforcement 4. Increase of community participation for FGR conservation and management 5. Systematic written guidelines tree programs and regional cooperation to improve FGR activities 6. Prioritizes species for regional cooperation 7. Build FGR in livelihood programs
Research, Training, Awareness	1. Most countries have large number of FGR related institutes 2. Researchers have contributed some extend to conserve, management and use of FGR 3. Genomic research on pinus and eucalypts have been initiated in India 4. Scientists and foresters have contributed to FGR	1. Inadequate research on characterization, evaluation, transferring to high-tech frontier technology 2. Training are not very relevant and training materials are outdated 3. No trained people for specific subjects such as taxonomy, dendrology, forest genetics, tree improvement 4. No education for FGR 5. Media coverage is very low 6. Inadequate infrastructure facility 7. Less funding 8. Very poor net working on FGR (local, regional, national and international) 9. Foresters and scientists working in FGR need better recognition.	1. Capacity building through exposure and exchange of scientists from there institutes 2. Technology transfer 3. Infrastructure development 4. Upgrade training programme 5. Development training models 6. Increase regional training programs workshops on FGR 7. FAO coordination and support in above programs 8. Incentives awards and recognition to be given
Policies and Institutions	1. Some coverage is given by the available policies	1. There is no separate legal instrument to govern FGR 2. CBD has no adequately addressed FGR	

Appendix 4

2) Achievements, constraints and action needs – Southeast Asia

Participants: Indonesia, Lao PDR, Malaysia, The Philippines, Thailand and Vietnam

Area	Achievements	Constraints	Actions to be undertaken
Knowledge of FGR	• Forest inventories – 3 levels (Lao PDR) but other countries not as extensive • Have a List of threatened species • Have a List of species and what they are used for (timber, medicine, NFTP) • Projects on certain species • Thailand only – want to collaborate with neighbors (ex bamboo) • Some selection trials including clones • Knowledge of forest product use (Lao met every saw miller in country to determine species use and supply)	• Lack of information on species, distribution and genetic variation • Still narrow focus on a few (country specific) valuable species • Research is still localize and not extensive enough within countries and between countries. • Land accessibility to complete trials and collect data. • Lack of systematic monitoring • Lack of government investment in knowledge of FGR program development • Sharing of information is good but compiling information is lacking • No committee for FGR by country to share knowledge and ideas • Knowledge of actions of forestry companies and groups in the country • Cost of books and information on FGR (PROSEA) and access to resources.	• Knowledge required of genetic erosion and long term effects • Monitoring and evaluation of genetic erosion • Set up a FGR committee that goes across agencies to share knowledge on FGR and policy and research actions and changes. • Need more research and knowledge on soci-economic, cultural and ecological values. • Genetic variation in important species • Tree improvement needs more emphasis of valuable species (teak, eucalypts, pine) • Training and education in FGR • Information management systems (get information from all sectors and organizations) • Budget and jobs for taxonomy, ecologists and training • Strategy for education (getting young people interested) • Need national strategy for FGR • Websites to share information
Management of FGR	• National plan for biodiversity conservation • National research plan on forest tree improvement • Every 4 years there is a review of the 'Strategy of national policy measures and plans on conservation and certain utilization of biodiversity' • Strategy and action plans for wildlife but not as much for biodiversity of plants. • Some studies on agroforestry (on farm FGR) in countries • Some coordination between sectors relating to FGR management • National breeding program in Philippines is led dept of Environment and natural resources with other research centers who support the program)	• Sectoral offices have to find their own budget for action in FGR • There is little Knowledge or acceptance of the importance of FGR in adaption and climate change.	• Need national plans for action. • FGR should jump into the climate change arena. Adaption through genetic diversity should be promoted. • Access funds through adaption fund and REDD+ process. • Plan for the development of botanical gardens (Indonesia) • Need more collaboration networks involved in FGR management not just personal relationships and casual meetings.
In situ	• Protected areas systems in each country • Some genetic conservation stands • Tree species in protected areas are part of the management plan. (ecological – pines) • Members of GMS initiative	• Good systems but there are still problems (eg government actively tries to get land for economic use from natural forests – plantation development • Mismanagement of in situ resources • High demand for logs (dibergia) means illegal logging keeps occurring even with bans. • Expanding of industrial species areas and those for agriculture	• Need more genetic conservation stands or ecological zones • Control of illegal logging • Good policies for in situ conservation from the government

Ex situ	• Gene banks in some countries • Collections of germplasm including rattan and bamboo (Philippines) • Trial/arboretum/botanical gardens areas Thailand 72 species, • Trials Lao 18 species, • Trials Indonesia medicinal plants (850 sp.),	• Cost of collection and management • Illegal cutting • Land availability for Ex situ species plantings • Mostly in botanical gardens and arboretum	• National botanical garden for Lao PDR while other countries have them. • Priorities species and greater emphasis on conservation
Sustainable resource use	• Reduced dependency on natural forests • Forest management contributing to conservation	• Overexploitation of valuable species • Accessibility of land is a constraint • Forest fires • Encroachment from shifting cultivation • Issues of invasive species encroachment	• Promote use of other woods than valuable woods such as teak. • Manage trees outside the forest such as agroforestry crops • Encourage forest plantations over natural forest use • Promote natural reforestation programs with original species if available
Research, Training, Awareness	• Seed orchards, species trials • Provenance trials • Some hybrids from acacia and clones for eucalypt (mostly private companies) • Teak research • Focus on medicinal plants and aquilaria (Malaysia) • Rubber in Thailand and Malaysia. • Some seed transfer between countries • There are institutions that undertake tree breeding in every country.	• Not enough seed orchard areas and not enough species represented • Not many species trials • Land availability to ensure there is not pollination of trees from outside the trials • Not enough money for research and training • Some trees have irregular flowering patterns (4-7 years)	• More seed orchards developed and more seedling trials • Need long term breeding plans • Molecular breeding – gets breeding system down to 1 generation (Malaysia) • Need more money in research (more money more interest) • Collaboration between public/private and between countries so no overlap and institutions and universities.
Policies and Institutions	• Laws to protect the environment • Seed quality must be certified (Philippines) • Phytosanitary certificates	• Enforcement	• Good policies that are enforceable • More discussion with stakeholders to make good policies

Appendix 5
3) Achievements, constraints and action needs – East Asia
Participants: **China and Republic of Korea**

Area	Achievements	Constraints	Actions to be undertaken
Knowledge of FGR	• Available information on species diversity, ie. Number, distribution; • Available information on Genetic variation and diversity of main reforestation species been studied through field and laboratory tests; • Basic FGR C&U system established	• Too many species to work on, need prioritization; • Declining intra-specific diversity of main tree species; • Negative Impacts of Climate Change • Deforestation and land use change; • Limited available information on biology of less-known species	• Strengthen national coordination of activities in FGR, e.g. information, researches, uses, etc • Assessment/monitoring of genetic diversity of identified species with important and potential economic values; • Awareness raising of government, public
Management of FGR	• National strategy available • FGR utilized through breeding programs, e.g. SO, SPA, etc; with significant genetic improvement; • Conservation by nature reserves (In situ) and Field genetic trials (ex situ), storage facilities established for important (endangered, timber production) species providing good protection; • Favorable policy on protection (e.g. Natural forest protection program)	• Information on genetic diversity/variation of many species still unavailable; • Insufficient studies on FGR conserved in situ; • Insufficient participation/involvement by local people in FGR activities • Lack of storage and propagation methods	• Establish a monitoring/evaluation system for conserved FGR; • Development of technical standards for FGR management.
Research, Training, Awareness	• National research network on FGR established; • National information system of FGR established providing useful data; • Awareness of FGR increased	• Lack of appropriate financing mechanisms for FGR activities; • Lack of specific curriculum on FGR in universities; • Lack of diversity in breeding objectives, • Lack of capacity building for research, training and awareness • The society lack of understanding as to the importance of genetic diversity, namely the intra-species genetic diversity	• Development of storage (long-term storage for recalcitrant seed-species) and propagation methods for species with no seed production; • Strengthen dissemination and education activities, public awareness of FGR • Create a long-term multi-objective breeding mechanism, to formulate incentive policies of encouraging stakeholders participation in the utilization and management of the genetically improved seeds.
Policies and Institutions	• Technical standards such as the “Technical codes of setting in situ FGR conservation sites", providing detailed specifications for selection of species and populations, size of conservation plots, characteristics of observation, collection of samples and subsequent protection measures of in situ conservation developed • Policy for protecting natural forest and the establishment and the protection of nature reserves of key species and typical ecosystems with national priority for protection	• Lack of funding • Difficulties in cross-sector coordination	• Establish nature reserves and protected plots • Sustainable monitoring for species and genetic variation are undertaken • Maintaining various forest ecosystems that consist of various stand/tree ages by encouraging measures to promote
Regional and International Cooperation	• Information exchange, database development, development of conservation strategies, and seed exchanges carried out • Acceded to international conventions such as CBD, CITES, UNFCCC, UNCCD, UNFF and UPOV Convention and multilateral or bilateral agreements, therefore promoting the conservation and utilization of FGR	• Lack of policies for IPR protection • Virtually no international collaboration on the forest tree genetic resources because of the abundance of native forest tree genetic resources in the nation and of little demands for introducing forest tree species.	• Establishment of a Regional forum on ABS • Priority of the future international collaboration on forest tree genetic resources would be regional/international workshops, training courses, and joint research on identified species

Appendix 6

Annex 6. Sub regional priority species

1) South Asia

Participants: Bangladesh, Bhutan, India, Maldives, Nepal and Sri Lanka

SPECIES	Conservation		Exploration and collection		Evaluation		Use and Improvement		Countries
	a	b	c	d	e	f	g	h	
Acacia auriculiformis		1	1	1		1	1	1	
A.mangium		1	1	1		1	1	1	
A.catechu	1	2	1	1	1	1	1	1	Nepal,Butan
Aquilaria aga		1		1	2	1	1	1	
A. malaccensis		1		1	2	1	1	1	
Artocarpus heterophyllus	1	1	1	1	1	1	1	1	
A. lakoocha	3	1	1	1	1	1	1	1	Nepal, Bhutan
Azadirachta indica		1	1	1	1	1	1	1	
Albizia.lebbek	1	1	1	1	1	1	1	1	
A. odoratissima	1	1	1	1	1	1	1	1	
A. procera	1	1	1	1	1	1	1	1	
Casuarina equisetifolia		1	2	2		1	1	1	
Adina cordifolia	1	1							
C. junghuhniana		1	2	2		1	1	1	
Dalbergia sissoo	1	1	2	1		1	1	1	
D. latifolia	1	1	2	1		1	1	1	
Dipterocarpaceae	1	1	1	1		1	1	1	
Shorea robusta	1	1	1	1	1	1	1	1	
Eucalyptus grandis		1							
E. tereticornis		1							
E. camaldulensis		1							
Gmelina arborea									
Chukrasia tabularis	1	1	1	1	2	1			
Pinus spp.	1	2	1	1		1	1	1	
Pterocarpus spp.									
Santalum album									
Tectona grandis	1	1	1	1	1	1	1	1	
Michelia champacaka	1	1							
Khaya senagalensis									
Swietenia macrophylla									
Melia spp.									
Bamboo spp.	1	1	1	1					
Rattan spp.	1	1	1						
Terminalia spp.									
Chalophyllum									
Alnus nepalensis									Nepal/Bhutan
Choeroespondia saxillaris									Nepal/Bhutan
Cedrus deodara									Nepal/Bhutan
Juglans regia									Nepal/Bhutan
Cinnamomum spp.									Nepal
Berrya corrdifolia									Sri Lanka

Legend:

Use 1, 2 and 3 to score the required activity for each species as follows:
1: High priority; 2: Prompt action recommended; 3: important but less urgent than 1 and 2

a) In situ
b) Ex situ
c) Ecological and biological information (natural distribution, taxonomy, genecology, phenology)
d) Collection of genetic material (seeds, herbarium samples, ...) for assessment
e) In situ (population study)
f) Ex situ (provenance and progeny trials)
g) Supply of seed and other reproductive material
h) Selection and breeding

Appendix 7

2) Sub regional priority species – Southeast Asia

Participants: Indonesia, Lao PDR, Malaysia, The Philippines, Thailand and Vietnam

SPECIES	Conservation		Exploration and collection		Evaluation		Use and Improvement		Countries
	a	b	c	d	e	f	g	h	
Dalbergia	1	3	1	1	1	3	2	3	Thailand,Lao, Cambodia, Vietnam
Pinus merkusil	2	2	2	3	1	3	3	3	Indonesia, Philippines, Lao, Cambodia, Vietnam
Rattan	1	2	1	3	2	1	3	3	Thailand, Malaysia, Philippines, Indonesia
Bamboo	1	2	1	3	2	1	3	3	Indonesia, Lao, Cambodia, Vietnam, Thailand, Malaysia, Philippines,
Tectona grandis	1	3	3	3	1	3	3	3	Myanmar, Thailand, Lao, Cambodia, Vietnam , Indonesia, Philippines
Dipterocarpus	1	3	3	1	1	1	1	1	Lao, Vietnam, Cambodia, Philippines, Indonesia, Malaysia
Shorea	1	1	1	1	1	1	1	1	Lao, Vietnam, Cambodia, Philippines, Indonesia, Malaysia, Thailand,
Phyllanthus emblica	1	1	1	1	1	1	1	1	Thailand, Lao
Aquilaria	1	3	1	1	1	1	1	1	Indonesia, Lao, Cambodia, Vietnam, Thailand, Malaysia
Hopea	1	1	1	1	1	1	1	1	Lao, Vietnam, Cambodia, Philippines, Indonesia, Malaysia, Thailand

Legend:

Use 1, 2 and 3 to score the required activity for each species as follows:
1: High priority; 2: Prompt action recommended; 3: important but less urgent than 1 and 2

a) In situ
b) Ex situ
c) Ecological and biological information (natural distribution, taxonomy, genecology, phenology)
d) Collection of genetic material (seeds, herbarium samples, ...) for assessment
e) In situ (population study)
f) Ex situ (provenance and progeny trials)
g) Supply of seed and other reproductive material
h) Selection and breeding

Appendix 8

3) Sub-regional priority species – Southeast Asia

Participants: China and Republic of Korea

SPECIES	Conservation		Exploration and collection		Evaluation		Use and Improvement		Countries
	In situ	Ex situ	Ecol-biol inform.	Coll. for assess.	In situ	Ex situ	Supply of repr. material	Selection and breed.	
1. Acacia auriculiformis									
2. Acacia mangium									
3. Betula platyphylla									
4. Carya									
5. Castanea mollisima		1		1		1	1	1	China, Japan, Korea
6. Casuarina equisetifolia									
7. Chamaecyparis formosana									
8. Chamaecyparis obtuse									
9. Cryptomeria japonica		1		2		2		1	China, Japan, Korea
10. Eucalyptus camaldulensis									
11. Eucalyptus globulus									
12. Eucalyptus grandis									
13. Eucalyptus smithii									
14. Eucalyptus urophylla									
15. Eucalyptus grandis x urophylla									
16. Fraxinus mandshurica	1	1		1	1	2	1	1	China, Japan, Korea
17. Haloxylon ammondendro									
18. Hippophae rhamnoides									
19. Juglans mandshurica									
20. Juglans regia									
21. Larix olgensis									
22. Larix kaempferi		1		2		2		2	China, Japan, Korea
23. Phellodendron amurense									
24. Pinus caribaea									
25. Pinus densiflora	2	2		2		1		1	China, Japan, Korea
26. Pinus koraiensis	2	2		2		1		1	China, Korea
27. Pinus massoniana									
28. Pinus yunnanensis									
29. Populus deltoides									
30. Populs nigra									
31. Populus simonii									
32. Populus tomentosa									
33. Populus euphratica	1	1	1	1		1	1	1	China
34. Quercus mongolica		1		1		1		1	China, Korea
35. Quercus variabilis									
36. Tilia emurense									
37. Toona chinensis	1	1		1		1		1	China, Korea
38. Toona ciliata									
39. Zelkova serrata	1	1		1	1	1		1	China, Japan, Korea
40. Ziziphus jujuba	1	1		1	1	1		1	China

Legend:

Use 1, 2 and 3 to score the required activity for each species as follows:
1: High priority 2: Prompt action recommended 3: important but less urgent than 1 and 2

i) In situ
j) Ex situ
k) Ecological and biological information (natural distribution, taxonomy, genecology, phenology)
l) Collection of genetic material (seeds, herbarium samples, ...) for assessment
m) In situ (population study)
n) Ex situ (provenance and progeny trials)
o) Supply of seed and other reproductive material
p) Selection and breeding

Forestry Department

Food and Agriculture Organization of the United Nations

Forest Genetic Resources Working Papers

Regional Consultation Workshop on Forest Genetic Resources in ***Central Asia***

Dushanbe, Tajikistan

Prepared by FAO in collaboration with State Committee for Environment Protection of the Republic of Tajikistan

October 2012

Forest Assessment, Management and Conservation Division FAO, Rome, Italy
Forestry Department

Working Document FGR /xxx

1.0 Background

The meeting for central Asia was organized in Dushanbe, Tajikistan, 27-29 August 2012, by FAO in collaboration with the State Committee for Environment Protection of the Republic of Tajikistan. Participants were the National Focal points on forest genetic resources from Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkey, Uzbekistan and the Russian Federation

2.0 Results

Subject/ theme	Achievements/ opportunities	Constraints	Needs and priority for actions	Regional and international collaboration /Partners
State of knowledge on FGR	-National forest inventory. -National forest research institutes. -Net of protected territories exists. -Big amount of publications. -National data base of forest resources. -Some knowledge of some scientists, experts and specialized forestry research organizations.	-Poor knowledge of current approaches, methods of research of FGR. -Data base system includes not full information about FGR. -Employees of forestry institutions and protected territories not enough prepared. -Outdated equipment Absence: - Special requirements for personnel; - Opportunities for development in this area; -finances for providing such works; -Absence of forest inventory enterprise in Tajikistan.	-Opening of specializations in the field of FGR conservation in universities, as well as post-graduate education (post-graduate); - organization of trainingt in modern methods; -improving the technical basis. -training on data collection in the field	-FAO, -Bioversity Int., - exchange of experts; - training in the leading genetic centers
Management/conservation	-Forest policy. -Forest national programmers/plans on biodiversity conservation in situ and ex-situ. -Net of protected territories. -Presence of gene conservation units and programs about it. -The presence of breeding and genetic facilities. - The organization of documentation on these objects; - the presence of certain experts; -Seeds and plant material exchange. -Cooperation between countries.	-Number of researchers working with FGR is low. Absence: - Special programs and funding for the conservation of FGR; - violation of the field breeding and genetic facilities; - Lack of basic information on the types and forms of forest trees; - Lack of information about the value of FGR; -Weak system of monitoring of FGR conservation. -Lack of finance. -Lack of qualified experts and scientist. -lack of equipment and modern methods. -Not enough knowledge about forest genetic variability	-To increase information about genetic diversity of main forest tree species. -Needs additional research. -Gene mapping of main forest species. -Joint regional data base on FGR conservation. -Seed zoning development. -The adoption of special programs. - Allocation of budget funds. -Need to know more about ex-situ conservation activity. -Inclusion of FGR problems into forest policy. -Training on monitoring of FGR. -Legislation improvement.	-FAO, -UNDP, -Bioversity Int., International projects. - The study of international experience in the conservation of FGR; - Development of regional standards and regulations in this area

Research programmers	-Concept of forest industry development. -National forest program. -National forest research institutes: -Institute of Botany, physiology and genetics in Tadjikistan -Academy of Sciences; -Poplar institute in Turkey. -national forest plan. -there are separate programs of research in some academic centers; - there are lists (Red Book) of rare species, which are systematically refined.	-Scientific knowledge about FGR is on low level -No complex target program on FGR; - Insufficient material and technical research base. -No legislative bases on FGR. -No list of priority species for gene conservation. -Staff aging. -No motivation for young people to work with FGR. -No interest to provide research on FGR. -Weak laboratory bases. -Lack information about research in other countries of CA. -Questions on FGR conservation issues worked poorly. -Absence of financial support to provide research. -Not enough information about some species taxonomy of regional flora.	-Development and implementation of a comprehensive strategy and targeted programs, including scientific support and technical provision of science. -To provide tree species grouping which are rear on the territory of CA countries. - Development of some species taxonomy of regional flora. -Development of common projects on FGR. -Development of regional network on FGR exchange. -Development new legislative base. -Development of motivation for young scientists. -Financial support for research institutes. -Collaboration about research programs to share technical and scientific capacities	-FAO, -Bioversity Int., - Participation in international research programs; - Implementation of international (regional) projects
Capacity building	-Forest Research Institute provide some research on FGR conservation, -Forest breeding centers – growing of plant material with improved gene properties; -Forest seed production institutions with the territorial divisions - certification and monitoring of forest selection, seed-breeding and genetic targets; -forest nurseries - growing plant material of main and rare species; -Some amount of experts exists. -Educational institutions train specialists in forestry and biology. -In the frame of the project “Fauna-Flora Int.” some training was provided for foresters. -Norwegian forest service provided foresters training as well	-Not enough trained professionals in the field; -Poor material and technical base; -Lack of methodological and scientific support. -Permanent reorganizations in forestry. -Lack attention to forestry on National level. -No new nurseries built. -No new FGR plots. -Decrease of experts on forest tree breeding. -Absence of training centres	-Increasing the number of breeding centers (for regions), and laboratories; -Extension of the network of genetic reserves for the main and rare (endangered) species; -Gene banks ex situ; -Improving the material-technical base of scientific and specialized organizations in the field of FGR. -Exchange of plant genetic material. -Experience exchange between countries. - Training plan for foresters. -To add subjects on FGR to university curricula.	-FAO, -Bioversity Int., -GEF, -Universities, -Academy of Sciences. - Regional forest genetic centers and banks; - Development of cooperation with the international genetic centers and banks

Policies and Institutions	-There is legislation on forests and protected areas; - There are state forests and protected areas; - There are scientific and educational institutions in the field of forestry; - The policy, strategy (in some countries), state programs in the field of forestry and protected areas	- The conservation of FGR is not one of the top priorities of the countries. - There is no long-term strategy for the conservation and utilization of FGR. -Not enough attention on FGR from the governments. -Not enough legislative basis on FGR conservation	-The integration of the conservation of FGR among the most important national priorities; - The creation of specialized joint Research Centre; - Opening of the budget programs to fund research in this area. -To work out standards for genetic material. -Development of regional recommendations on seed transfer. -Development DB of FGR. -Coordination work on FGR inside and between countries. -Development modern methodological materials and recommendations. -Improvment the legal and regulatory framework. - Establishment of transboundary protected areas to protect important FGR. - The creation of a regional center for the coordination of FGR, and regional information base.	-FAO, -Bioversity Int., -Development of regional programs of FGR;

Annex 1. Workshop programme

REGIONAL WORKSHOP ON FOREST GENETIC RESOURCES in Central Asia 27th -29th August , Dushanbe, Tajikistan	
Sunday	**26 August arrival of participants**
	All participants are hosted at Hotel "Tajikistan"
Monday27 August	
8.30 – 9.00	Registration
9.00 – 9.30	Opening - Programme and Objectives of the Workshop
9.30 – 10.30	Presentation of key findings and recommendations of Country Reports on FGR by National Focal Points
10.30 – 11.00	Coffee break
11.00 – 12.30	Presentation of key findings and recommendations of Country Reports on FGR by National Focal Points (Cont.)
12.30 – 14.00	Lunch
14.00 – 15.00	Presentation of preliminary draft regional report and proposed process for its review and finalization (by regional consultant)
15.00 – 16.00	Plenary discussions on state of FGR in the region for review and finalization
16.00 – 16.30	Coffee break
16.30 – 18.00	Plenary discussions on the state of FGR in the region for review and finalization
Tuesday	**28 August**
8.30 – 10.30	Plenary discussions to review and finalize regional needs and priorities for future actions (Cont.)
10.30 – 11.00	Coffee break
11.00 – 12.30	Plenary discussions to review and finalize regional needs and priorities for future actions (Cont.)
12.30 – 13.30	Lunch
14.00 – 16.00	Plenary discussions to review and finalize regional needs and priorities for future actions
16.00 – 16.30	Coffee break
16.30 – 18.00	Wrap up and Follow actions
Wednesday	**29 August**
8.30 –Field visit	
End of workshop	

Annex List of participants

- Mr. Ekrem Yazici – FAO SEC
- Mr. Albert Nikiema – FAO HQ
- Ms. Judy Loo – CGIAR
- Ms. Natalia Demidova – International Consultant
- Ms. Gaye Kandemir – Turkey
- Mr. Khodjimurat Talipov – Uzbekistan
- Ms. Venera Surappaeva – Kyrgyzstan
- Mr. Agil Abbasov – Azerbaijan
- Mr. Saidov Madibron, Tadjikistan
- Takhmina Touraeva FAO, Tadjikistan

Departamento Forestal

Organización de las Naciones Unidas para l'alimentación y L'agricultura

Documento de Trabajo sobre Recursos Genéticos Forestales

Taller de Consulta Regional sobre Recursos Genéticos Forestales en ***América Latina***

Santiago, Chile

Preparado por FAO en colaboración con Bioversity International y LAFORGEN

Octubre 2012

División de Evaluación, Ordenación y Conservación Forestal
Departamento Forestal

Documento de Trabajo FGR/79S
FAO, Roma, Italia

1.0 Participantes

El taller contó con la participación de puntos focales nacionales y miembros del Cuadro de Expertos sobre recursos genéticos forestales de la FAO y Expertos de FAO, Bioversity International y LAFORGEN. (La lista de participantes se encuentra en Anexo 2).

2.0 Desarrollo de la reunión

El Sr. Alan Bojanic, Representante de FAO ante el Gobierno de Chile dio la bienvenida a los participantes y destacó la importancia de los recursos genéticos forestales para el desarrollo sostenible, los medios de vida de las comunidades rurales y la seguridad alimentaria de millones de personas en región latinoamericana.

También agradeció la disposición de los presentes para participar en el taller, que debe proveer información de gran relevancia para completar la preparación del informe sobre Estado de los Recurso Genéticos Forestales en el Mundo.

A continuación, los puntos focales de los países presentaron los resultados más relevantes de los informes nacionales, describiendo, en algunos casos, los procesos participativos empleados para recoger la información.
Varios países aun se encuentran en proceso de formulación del informe nacional, por lo que sus puntos focales informaron sobre algunos aspectos relevantes de los RGF en sus países y sobre el proceso de formulación en marcha.
Algunos países entregaron informes finales o parciales en el curso del taller.

Los participantes destacaron la importancia de este intercambio de información, especialmente para aquellos países que aun están en el proceso de preparación del informe nacional. También quedó de manifiesto que la mayoría de los países generó la información contenida en los informes a través de procesos participativos, con la presencia de todos los grupos de interés.

La segunda parte del taller se realizó mediante trabajo en grupos subregionales. Se establecieron tres grupos de trabajo : Mesoamérica y Cuba; Amazonía y Cono Sur.

Cada grupo de trabajo analizó la situación sobre el conocimiento de los recursos genéticos forestales en la sub-región ; el estado de conservación y manejo; la situación de la investigación, entrenamiento y concienciación ; las políticas e instituciones y sobre aspectos de cooperación entre los países y a nivel regional e internacional. Los grupos de trabajo identificaron los aspectos positivos y las debilidades en cada uno de estos temas y determimaron las acciones que los países deberían tomar para avanzar en la conservación y uso sostenible de los recursos genéticos forestales.

Otra de las tareas realizadas por los grupos de trabajo fue identificar las especies prioritarias, por su importancia en la producción de madera u otros productos o por su estado de conservación. Los expertos definieron prioridades para cada una de las especies seleccionadas en aspectos relacionados con su conservación, conocimiento y uso y mejoramiento.

Luego, teniendo como insumo la situación de los tres grupos subregionales, todo el grupo trabajo en determinar los aspectos prioritarios, a nivel latinoamericano, en relación al conocimiento, conservación y acciones para el uso y conservación de los recursos genéticos forestales de América Latina.

3.0 Resultados

A continuación se presentan la tabla que resume la situación de los recursos genéticos forestales en América Latina e identifica acciones que deberían ser emprendidas por los países para mejorar el conocimiento y la conservación y manejo de los RGF. Asimismo se identifican acciones relacionadas con la investigación, las políticas e instituciones y con la cooperación entre países y a nivel regional e internacional. Los resultados sub-regionales se entregan en el Anexo 3.

También, como parte de los resultados, se entregan las tablas con las especies que han sido identificadas como prioritarias desde el punto de vista de los recursos genéticos forestales.

5.0 Anexos 1

Tabla N° 1. Compilación final, Taller sobre Recursos Genéticos Forestales en América Latina
Logros y desafíos para la gestión de los recursos genéticos forestales. 17-19 de octubre de 2012, Santiago, Chile

Área	Logros/Fortalezas	Dificultades/Debilidades	Acciones a tomar
Conocimiento de los RGF	• Existe conocimiento sobre el uso y manejo tradicional de los RGF por parte de los pueblos indígenas y comunidades tradicionales. • Hay avances en el conocimiento científico de diversas especies que componen los RGF: técnicas moleculares, biotecnología, entre otras. • Existen bases de datos de la situación de los RGF a nivel de especies a través de los inventarios forestales nacionales. • Existe un adecuado conocimiento de las especies introducidas que se emplean en plantaciones forestales productivas	• Existen profesionales en el tema, pero no son suficientes para todas las necesidades y labores requeridas. • Los estudios científicos sobre los RGF no se centran en las necesidades productivas y de conservación de los países y de la sociedad. Y además no existe un claro enlace entre acciones de conservación y los estudios genéticos. • Las empresas forestales privadas son reticentes a compartir y brindar información respecto de los avances tecnológicos. • Los inventarios nacionales no consideran el uso de indicadores y parámetros para evaluar los RGF. • El conocimiento sobre los RGF asociados a las especies nativas es, por lo general, insuficiente.	• Incluir a las especies prioritarias y amenazadas en los planes de reforestación, en los planes de educación, comunicación y concienciación pública. • Establecer y/o fortalecer redes locales en torno a especies de interés común, para implementar acciones. • Aproximar el conocimiento científico con el conocimiento tradicional a través de proyectos que involucran a las comunidades locales en la conservación de los recursos forestales. • Generar proyectos e iniciativas de investigación, con adecuado financiamiento, que permitan generar una articulación entre los estudios genéticos y las actividades de conservación *in situ* y *ex situ* de cada país. • Fortalecer las alianzas público- privadas, considerando involucrar a la sociedad en general. • Implementar acciones en sintetizar indicadores y parámetros comunes o estandarizados de aplicación simple para evaluar RGF, como parte de los inventarios nacionales.
Conservación y manejo de los RGF	• Los países han establecido áreas naturales protegidas que constituyen una de las formas de conservación in situ de RGF. • Existen programas de conservación para especies en peligro. • Existen iniciativas reales de conservación y manejo de los RGF en relación a especies de importancia económica, maderables y no maderables. • La conservación de los RGF en áreas manejadas sosteniblemente para la producción de madera y otros productos adquiere importancia, incluyendo sistemas	• Aunque existen iniciativas de establecimiento de bancos de germoplasma, éstos son insuficientes para la conservación de la alta diversidad forestal de los países de la Región. A esto se agrega la falta de presupuesto para mantenerlos. • No hay actividades suficientes y fondos locales estatales que apoyen proyectos de conservación de los RFG. • La conservación de los RGF no es lo suficientemente valorada, lo que se refleja en acciones de conservación in situ y ex situ y en procesos de restauración insuficientes. • Persisten los problemas de deforestación y	• Promover estrategias de conservación de los RGF teniendo en consideración las necesidades de adaptación al cambio climático global. • Generar normativas y/o leyes que promuevan la creación y manejo de áreas silvestres protegidas y regulen el cambio de uso del suelo permitiendo la conservación de los RGF. • Incentivar los estudios y conocimiento de la genética y reproducción de las especies con el fin de asegurar la conservación y uso sostenible de RGF . • Crear/Fortalecer/mantener bancos de germoplasma (tanto de almacenamiento transitorio de semillas

	agroforestales y árboles en fincas.	degradación de los bosques, principalmente por la expansión de la frontera agropecuaria, la tala para leña y carbón, incendios forestales, entre otras causas. • Falta de apreciación de los usos múltiples de las especies forestales, las cuales pueden generar una serie de bienes y servicios, además de su uso maderable. • No existen estudios sobre la diversidad genética de especies protegidas y conservadas en parques naturales o áreas de conservación *in situ*	como de mantención de germoplasma con fines de conservación a largo plazo) para la conservación *ex situ* de RGF, en particular para conservar las especies forestales priorizadas por cada país. • Generar proyectos de uso y manejo sostenible de los recursos forestales que tengan como principio la valoración múltiple de los RGF. • Evaluar con precisión el aporte de las áreas naturales protegidas para la conservación de los RGF. • Considerar información relativa a la diversidad genética forestal para determinar áreas de protección *in situ*.
Investigación, entrenamiento y concienciación	• Existen programas de mejoramiento genético principalmente de especies de valor comercial, tanto en el sector público como en el privado. • Existen avances en la investigación y en el desarrollo de materiales de capacitación en RGF, generados tanto por organizaciones gubernamentales como privadas.	• Existe una limitada oferta de trabajo en el área relacionada a los RGF, lo que incide negativamente en la formación de profesionales dedicados al tema. • Falta de financiamiento, tanto para capacitación de profesionales jóvenes como para programas y proyectos continuos a nivel nacional y regional. • Escases de programas y esfuerzos para la propagación de especies amenazadas. • Falta investigación interdisciplinaria, así como diseminación, divulgación y acceso a los resultados de las investigaciones. • Escasa vinculación entre las instituciones de investigación y educación forestal con el sector productivo, incluyendo el sector agrícola y otros usuarios. • La investigación en RGF no siempre responde a los requerimientos generados por políticas de estado o por la sociedad en general: Por lo general responde a iniciativas personales. • A nivel universitario y de otras instancias académicas los recursos genéticos forestales no reciben la atención necesaria y tienen escasa presencia en los programas de estudio. • Las especies nativas no reciben suficiente atención en comparación con las especies introducidas, en los programas de investigación, particularmente en aspectos relacionados a su productividad. • Baja aplicabilidad de las investigaciones en RGF	• Planear y organizar más cursos de capacitación en relación a RGF en todos los países. • Concientizar y motivar a los entes políticos y gobiernos de los países sobre la relevancia de la investigación y conservación de los RGF. • Promover y fortalecer la formación de investigadores y especialistas en RGF, así como generar oportunidades de trabajo para estos especialistas. • Los programas universitarios deben destacar el tema de la conservación de los RGF. • Incluir los RGF en las convocatorias de investigación. • Difundir la información generada por la investigación a diferentes sectores de la sociedad.

Políticas e instituciones	• Existen marcos legales y normativos sobre recursos forestales y en algunos países sobre RGF en particular. A esto se agrega la información generada por los inventarios forestales nacionales. • Existen acuerdos internacionales que establecen marcos regulatorios para el acceso y beneficio a los RGF.	• Dificultades para acceder y colectar RGF para investigación de acuerdo a las normas establecidas por los acuerdos internacionales • Dificultades para la colección e intercambio de germoplasma entre países y dentro del país, con fines de investigación científica y bio-prospección. • Regulaciones excesivas y malas interpretaciones de normativas establecidas en acuerdos internacionales, por ejemplo CITES, limitan el intercambio de RGF. • Los Acuerdos de Transferencia de Material en el concepto del CBD, en algunos casos se convierte en obstáculo para el acceso de los recursos genéticos y no aseguran la trazabilidad del material y el desarrollo de las investigaciones. • Falta de capacitación y de idoneidad de los encargados que otorgan los permisos impide que se faciliten los procesos de investigación en RGF. • Falta de coordinación regional para realizar procedimientos de control y adopción de normativas legales. • Carencia de claridad, aplicabilidad y severidad de las leyes forestales en relación a la conservación de los bosques, en particular con el cambio de uso de la tierra causante de la deforestación.	• Agilizar los tramites en relación a CITES, los ATM y otras regulaciones en relación al acceso a los recursos genéticos, que sean menos burocráticos • Coordinar y articular instituciones y otras instancias competentes en los temas de gestión del territorio • Adecuar o actualizar las leyes forestales a las condiciones reales de los RGF. • Mantener diálogo para mejorar la implementación de los acuerdos internacionales. • Establecer mecanismos claros y fáciles para el otorgamiento de permisos de investigación en RGF. • Las políticas de ciencia y tecnología deben estar enfocadas a las regiones de alta diversidad forestal, así como tener entre sus acciones la conservación y uso de los RGF. • Promover, impulsar y establecer mecanismos para el desarrollo de pago por servicios ambientales (PSA) en relación a diversidad y el uso sostenible de los RGF. • Generar foros de discusión a nivel nacional e internacional para establecer objetivos y directrices comunes de trabajo sobre la conservación y uso de los RGF.
Cooperación regional e internacional	• Existen avances en cooperación regional e internacional, incluyendo capacitación a técnicos. • Acceso libre a información sobre RGF a través de internet desde organizaciones tales como FAO, Bioversity, CATIE y otras.	• Carencia de claridad, aplicabilidad y severidad de las leyes forestales en relación a la conservación de los bosques, en particular con el cambio de uso de la tierra causante de la deforestación. • No existen proyectos y alianzas de cooperación entre países de la región en el tema de RGF. • Falta de claridad en la implementación de acceso y beneficios de los RGF y eso restringe la colaboración y procesos de cooperación. • Falta de recursos financieros propios de los países que estimule la cooperación regional	• Mantener diálogo para mejorar la implementación de los acuerdos internacionales en RGF. • Reforzar los esfuerzos de cooperación a través de redes en RGF y el intercambio de experiencias e investigaciones. • Solicitar a la FAO la sistematización de las ofertas y capacidades de los países como insumo para la cooperación técnica regional. • FAO, PNUD y otras entidades internacionales deben incentivar alianzas y políticas de cooperación en el tema de RGF entre los países.

Tabla N° 2. ESPECIES PRIORITARIAS MESOAMÉRICA

Especies	Conservación		Exploración y recolección		Evaluación		Utilización de germoplasma		Países
	In situ	**Ex situ**	**Información biológica y ecológica**	**Colecta de material genético**	**In situ (población) diversidad genética**	**Ex situ (Procedencia y ensayos de progenie) Mejoramiento genético**	**Suministro de semillas y material reproductivo**	**Selección y cultivo o manejo**	
Cedrela odorata	1	1	2	1	1	1	1	1	Todos
Swietenia macrophylla	1	1	2	1	1	1	1	1	Todos
Swietenia humilis	1	2	1	2	1	1	3	2	Excepto Panamá
Anacardium excelsum	1	2	2	1	1	1	1	1	Excepto Cuba, México, El Salvador
Cordia alliodora	2	3	3	3	3	3	2	2	Excepto Nicaragua y Panamá
Carapa guianensis	1	3	2	2	2	2	2	1	Excepto México
Pachira quinata	1	2	2	1	1	1	1	1	Excepto Cuba
Myroxylum balsamun	1	2	1	2	1	2	1	2	Excepto Cuba Nicaragua, México
Rhizophora mangle	1	1	1	1	1	1	1	1	
Pinus patula	1	1	2	1	2	1	2	2	Solo México
Pinus tecunumanii	1	2	3	1	1	3	2	2	Nicaragua, Guatemala
Pinus chiapensis	1	1	1	1	1	1	1	1	México y Guatemala

Tabla N° 3. ESPECIES PRIORITARIAS, AMAZONÍA

ESPECIES	Conservacion		Exploración y recolección		Evaluación		Uso y mejoramiento		Países	Observaciones
	In situ	**Ex situ**	**Información biológica y ecológica**	**Colecta de material genético**	**In situ (población) diversidad genética**	**Ex situ (Procedencia y ensayos de progenie) Mejoramiento genético**	**Suministro de semillas y material reproductivo**	**Selección y cultivo o manejo**		
Aniba rosaeodora	1	1	2	1	1	3	2	2	Brasil, Perú	Hay poblaciones naturales en Perú y en Brasil ya no hay.
Bactris gasipaes	2	2	3	2	1	2	2	2	Colombia, Venezuela, Ecuador, Perú, Bolivia, Brasil	Muy importante la conservación ex situ para Ecuador. En Colombia y Ecuador es relevante el uso y manejo de chontaduro, n o existe al momento como en Brasil y Perú.
Bertholletia excelsa	1	1	3	1	1	2	3	3	Brasil, Perú , Bolivia	
Carapa guianensis	2	2	3	3	2	3	2	2	Colombia, Ecuador, Perú, Brasil, Bolivia	Hay información en poblaciones en Brasil
Caesalpinia spinosa	2	2	3	2	2	2	1	1	Colombia, Venezuela, Ecuador, Perú, Brasil,	
Cedrela odorata	1	1	2	2	1	2	1	1	Toda la amazonia	
Cedrelinga cateniformis	2	1	1	1	1	1	1	1	Colombia, Venezuela, Ecuador, Perú, Brasil, Las Guyanas.	
Guadua angustifolia	2	1	3	1	1	2	1	1	Colombia, Ecuador, Perú, Brasil, Bolivia, Paraguay	

Prosopis juliflora_Prosopis pallida	1	1	2	1	1	1	1	1	Colombia, Venezuela, Ecuador, Perú, Bolivia, Brasil	
Swietenia macrophylla	1	1	3	2	1	1	2	2	todos	
Virola surinamensis	1	1	2	1	1	3	2	1		
Copaifera sp. (langsdorfii y reticulata)	1	2	2	1	1	2	1	2		
Hevea brasiliensis	2	3	3	3	2	2	2	2		
Schizolobium amazonicum	2	1	3	1	1	2	2	2		
Podocarpus sp. (sprucei y lambertti)	1	1	2	1	1	2	2	1		
Callophyllum spruscianum	1	1	2	1	1	2	2	2		
Myroxylum sp.(balsamum y peruiferum)	1	1	2	2	1	1	2	2		

Tabla N° 4. ESPECIES PRIORITARIAS – Exóticas CONO SUR

ESPECIES	Conservación		Exploración y recolección		Evaluación		Utilización de germoplasma		Países
	In situ	Ex situ	Información biológica y ecológica	Colecta de material genético	In situ (población) diversidad genética	Ex situ (Procedencia y ensayos de progenie) Mejoramiento genético	Suministro de semillas y material reproductivo	Selección y cultivo o manejo	
Pinus radiata		1		1		1	1	1	Chile
Eucalyptus grandis		1		1		1	1	1	Uruguay, Argentina, Paraguay
Pinus taeda		1		1		1	1	1	Argentina, Uruguay, Paraguay
Eucalyptus camaldulensis		2		1		1	1	1	Paraguay (1), Uruguay (2), Chile (2), Argentina (2)
Eucalyptus globulus		1		1		1	1	1	Chile, Uruguay, Argentina
Eucalyptus dunnii		2		2		2	2	1	Uruguay, Argentina
Eucalyptus nitens		2		2		2	2	1	Chile, Argentina
Pinus elliottii		1		1		1	1	1	Argentina (2), Paraguay (1) Uruguay (3)
Populus spp.		2		2		2	2	2	Argentina (2), Chile (2) Uruguay (3)
Pinus ponderosa		2		2		2	2	2	Argentina (2) Chile (2)
Salix spp.		2		2		2	2	2	Argentina (2)
Pseudotsuga menziessii		2		2		2	2	2	Chile (2) Argentina (3)
Eucalyptus benthamii		2		2		2	1	2	Uruguay
Acacia saligna		2		2		2	2	2	Chile (2)

Tabla N°5. ESPECIES PRIORITARIAS – NATIVAS CONO SUR

ESPECIES	Conservación		Exploración y recolección		Evaluación		Utilización de germoplasma		Países
	In situ	Ex situ	Información biológica y ecológica	Colecta de material genético	In situ (población) diversidad genética	Ex situ (Procedencia y ensayos de progenie) Mejoramiento genético	Suministro de semillas y material reproductivo	Selección y cultivo o manejo	
Nothofagus spp.	1	1	1	1	1	1	1	1	Chile, Argentina
Tabebuia spp.	1	1	1	1	1	1	1	1	Paraguay, Argentina (2)
Prosopis spp.	1	1	1	1	1	1	1	1	Chile, Argentina, Uruguay, Paraguay (2)
Acca sellowiana	1	1	2	2	2	1	1	1	Uruguay
Araucaria spp.	1	1	1	1	1	1	1	1	Argentina, Chile, Paraguay, Uruguay (3)
Pitavia punctata	1	1	1	1	1	2	1	2	Chile
Amburana cearensis	1	1	1	1	1	1	1	1	Paraguay
Cedrela spp.	1	1	1	1	1	1	1	1	Argentina, Paraguay
Beilshmiedia berteroana	1	1	1	1	1	2	1	2	Chile
Fitzroya cupressoides	1	1	1	1	1	1	1	1	Chile, Argentina
Austrocedrus chilensis	1	1	1	1	1	1	1	1	Chile, Argentina
Myrocarpus frondosus	1	1	1	1	1	1	1	1	Paraguay, Argentina
Butia spp.	1	2	2	3	3	3	1	1	Uruguay
Salix humboldtiana (Salix chilensis)	1	1	1	1	1	1	1	1	Argentina (1), Chile (2), Uruguay (2)
Gomortega keule	1	1	1	1	1	1	1	1	Chile
Bulnesia sarmientoi	1	1	1	1	1	1	1	1	Argentina, Paraguay
Peltophorum dubium	1	1	1	1	1	1	1	1	Argentina, Paraguay
Cordia trichotoma	1	1	1	1	1	1	1		Argentina, Paraguay
Aspidosperma spp.	1	1	1	1	1	1	1	1	Argentina(1), Paraguay (2), Uruguay (3)
Sebastiania klotzschiana	3	3	3	3	3	3	3	3	Uruguay, Argentina
Jubaea chilensis	1	2	1	1	1	1	2	1	Chile
Myrceugenia colchaguensis	1	1	1	1	1	1	1	1	Chile
Caesalpinia paraguariensis	1	1	1	1	1	1	1	1	Paraguay, Argentina
Pilgerodendron uvifera	1	1	1	1	1	1	1	1	Chile
Schinopsis spp	1	1	1	1	1	1	1	1	Paraguay, Argentina
Parapigtadenia rigida	1	1	1	1	1	1	1	1	Argentina (1), Paraguay (2), Uruguay (2)
Balfourodendron riedelianun	1	1	1	1	1	1	1	1	Argentina, Paraguay
Euterpe edulis	1	1	1	1	1	1	1	1	Argentina, Paraguay
Podocarpus spp.	1	1	1	1	1	1	1	1	Chile, Argentina

Agenda

Taller sobre Recursos Genéticos Forestales en América Latina 17-19 de octubre de 2012, Santiago, Chile	
Miércoles	**17 de octubre de 2012**
8.30 – 9.00	Inscripción de participantes
9.00 – 9.30	Palabras de bienvenida
	Presentación de los participantes
9.30 – 10.30	Presentación de la agenda de la reunión y de los objetivos del Taller
	Actualización sobre la preparación del Informe sobre el Estado de los Recursos Genéticos Forestales en el Mundo
10.30 – 11.00	Café
11.00 – 12.30	Presentación de resultados y recomendaciones de informes de país
12.30 – 14.00	Almuerzo
14.00 – 16.00	Presentación de resultados y recomendaciones de informes de país (Continuación)
16.00 – 16.30	Café
16.30 – 18.00	Presentación de resultados y recomendaciones de informes de país (Continuación)
Jueves	**18 de octubre**
8.30 – 10.30	Organización de grupos sub-regionales para identificar necesidades y prioridades para acción
	Inicio del trabajo en grupos sub-regionales
10.30 – 11.00	Café
11.00 – 12.30	Trabajo en grupos sub-regionales (Continuación)
12.30 – 14.00	Almuerzo
14.00 – 16.00	Trabajo en grupos sub-regionales (Continuación)
16.00 – 16.30	Café
16.30 – 18.00	Trabajo en grupos sub-regionales (Continuación)
Viernes 19 de Octubre	
8.30 – 10.30	Presentación de resultados de trabajo en grupos sub-regionales
10.30 – 11.00	Café
11.00 – 12.30	Presentación de resultados de trabajo en grupos sub-regionales
12.30 – 14.00	Almuerzo
14.00 – 16.00	Síntesis final, conclusiones y clausura

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Anexos 2: Tablas subregionales.

Tabla 1: Taller sobre Recursos Genéticos Forestales en América Latina 17-19 de octubre de 2012, Santiago, Chile
Cuadro para trabajo en grupos: MESOAMÉRICA

Área	Logros/Fortalezas	Dificultades/Debilidades	Acciones a tomar
Conocimiento de los RGF	Hay profesionales formados, conocimiento de algunas especies. Bases de datos de la situación del recurso forestal a nivel especies a través de los inventarios forestales nacionales. Papel de FAO ha contribuido a resaltar la importancia de RGF. Se han puesto los RGF aparte de los fitogenéticos.	Falta de financiamiento. Los jóvenes no han podido entrenarse. En algunas leyes forestales no se mencionan los RGF. Falta de divulgación por recortes presupuestarios en las instituciones. No existe un programa de capacitación den RGF. En los inventarios nacionales no toman en cuenta indicadores de los RGF.	Contribuir al aseguramiento de los servicios ecosistémicos. Trabajar a nivel local. Incluir las especies en los planes de reforestación, en los planes de educación, comunicación y conciencia pública. Visualizar las posibilidades económicas de RGF y darles los incentivos adecuados. Establecer y/o fortalecer redes locales por especies, para implementar acciones. Utilizar mecanismos regionales incluyendo el Caribe para lograr financiamiento.
Conservación y manejo de los RGF	Los países han establecido áreas de manejo y conservación. Estrategias de conservación de RGF. Estrategias de conservación para atender el cambio climático. Programas de conservación para especies de alta demanda. Programas de conservación para especies en peligro. Colecciones vivas en jardines botánicos, y ensayos.	No se han aprobado proyectos a nivel nacional sobre RGF. No se han llevado a la implementación los planes estrategias en material de conservación de biodiversidad. Se plantea en los planes de investigación pero la implementación en campo es mínima ya que no son prioritarias. Presión demográfica por la tierra. Persisten los problemas de deforestación, incendios y otros. Falta de priorización de especies y establecimiento de acciones en el campo como fuentes semilleros. Escasa infraestructura para la conservación y distribución de germoplasma p.e. conservación en frío.	Dentro de los programas de ordenamiento se incluyan criterios para garantizar la conservación de los RGF. Incluir en los inventarios forestales nacionales criterios para la caracterización e identificación de los RGF. Garantizar el financiamiento para el manejo y conservación de los RGF. Proponer mecanismos e incentivos para el manejo de los RGF. Establecer unidades de conservación de RGF de especies representativas (por criterios económicos, ecológicos y culturales). Utilizar las herramientas tecnológicas para el manejo y acceso a los RGF (Mapforgen). Vincular e incorporar información de los planes de manejo en SIG.
Investigación, entrenamiento y concienciación	Hay resultados de mejoramiento genético principalmente de especies de valor comercial. Propagación de especies amenazadas en base a la ley forestal. Se ha incorporado la conservación de RGF a nivel institucional en algunos países. Sector privado ha invertido en mejoramiento genético de especies comerciales. Listados de especies amenazadas y prioritarias para comercialización.	Falta de los estudios poblacionales para las especies en alguna categoría de riesgo. Falta investigación interdisciplinaria. Falta de diseminación, divulgación y acceso a los resultados de investigación. Escasa vinculación entre las instituciones de investigación y educación forestal con el sector productivo y otros usuarios. No hay investigación por demanda. Falta de financiamiento a largo plazo. En algunos países se eliminan los programas de investigación	Visualizar ante los entes políticos de la importancia de la investigación. Programas de investigaciones coherentes. Involucrar al sistema educativo en todos los niveles en el tema de conservación y manejo de RGF. Formación de investigadores y especialistas en RGF. Generar trabajos y oportunidades en RGF. Vincular cambio climático y otros temas de actualidad a los RGF. Vincular los resultados de la investigación a la extensión.

	Creciente reforestación en diferentes países por parte de varios sectores incluyendo el privado.	estatales.	Incluir los RGF en las convocatorias de investigación. Socializar la información generada por la investigación a diferentes sectores de la sociedad.
Políticas e instituciones	Se han realizado una gran cantidad de leyes que afectan parcial o totalmente los RGF. Leyes internacionales regulan el acceso y beneficio a los RGF.	Dificultades para el acceso a los RGF para la investigación de acuerdo a los acuerdos internacionales y las normas no están claras en varios países. Dificultades para la colección e intercambio de germoplasma entre países y dentro del país. Regulaciones y malas interpretaciones en algunos países de CITES limitan el intercambio aún de semillas por ejemplo en *Cedrela odorata o Swietenia sp.* Falta de institutos de investigación forestales tipo INTA Argentina. La investigación se ha eliminado a nivel estatal en algunos países. Falta de capacitación a los que dan los permisos impide que ellos puedan facilitar la investigación. Falta de personal especializado en RGF para facilitar la certificación y comercialización y producción de semillas y plantas forestales. Los ATM en el concepto del C**BD se** convierten en una traba para el acceso genético y no aseguran en nada al país que los emite en cuanto a la trazabilidad del material.	Facilitar los permisos para la investigación sin fines de lucro en RGF. Capacitar a los funcionarios respectivos para agilizar el trámite de permisos en la certificación y comercialización y producción de semillas y plantas forestales. Revisar las políticas y acuerdos internacionales para que no obstruyan la investigación. Destinar los fondos para fortalecer las instituciones de investigación. Apoyar a algunos gobiernos en la estructuración o restructuración de los programas de investigación en RGF. Establecer mecanismos claros y fáciles para el otorgamiento de permisos de investigación en RGF. Promover la investigación regional y binacional.
Cooperación regional e internacional	Existe cooperación regional e internacional, incluyendo capacitación a técnicos. Acceso a través de internet a documentos en RGF (Bioversity, FAO, CATIE, etc.)	No existen proyectos regionales en RGF. Convenios internacionales tipo CBD, han limitado la cooperación regional e internacional en RGF. No existe una agenda de prioridades a nivel regional.	Retomar los esfuerzos de redes en RGF y el intercambio de experiencias e investigaciones. Reforzar las unidades de investigación estatal para posibilitarles el intercambio regional. Inventario de recursos y capacidades a nivel de país para hacerlas disponibles u otros compañeros de otros países. Solicitar a la FAO la sistematización de las ofertas y capacidades de los países como insumo para la cooperación técnica regional.

Tabla 2: Taller sobre Recursos Genéticos Forestales en América Latina 17-19 de octubre de 2012, Santiago, Chile

Cuadro para trabajo en grupos: AMAZONÍA

Area	Logros/Fortalezas	Dificultades/Debilidades	Acciones a tomar
Conocimiento de los RGF	• Conocimiento uso y manejo tradicional de los RGF por parte de los pueblos indígenas y comunidades tradicionales. • Avances en el conocimiento científico de los RGF: técnicas moleculares, biotecnología.	• Valorar el conocimiento y realizar acuerdos de conservación de los recursos. Así como la asignación de recursos económicos que permitan realizar estos acuerdos. • Los estudios científicos en RGF no se centran en las necesidades de país y de la sociedad. Y además no existe un claro enlace entre acciones de conservación y los estudios genéticos.	• Aproximar el conocimiento científico con el conocimiento tradicional a través de proyectos que involucran las comunidades indígenas en la conservación de los recursos forestales. • Proyectos de investigación que permitan generar una articulación entre los estudios genéticos y las actividades de conservación in situ y ex situ de cada país.
Conservación y manejo de los RGF	• Existencia de iniciativas reales de conservación y manejo de los RGF en relación a especies de importancia económica maderables y no maderables.	• La conservación de los RGF no es valorada directamente para acciones de conservación in situ y ex situ, ni tampoco en procesos de restauración. • Ausencia de bancos de germoplasma para RGF • Falta de apreciación de los usos múltiples de las especies forestales, las cuales pueden ser de utilidad en varios aspectos distintos al uso maderable. • Existencia del mayor porcentaje de diversidad forestal del mundo aún con necesidades de uso y manejo sostenible de los RGF	• En la conservación y uso sostenible de RGF es imprescindible el conocimiento de genética y reproducción de las especies. • Priorización de especies clave (ecológica-comercialmente, ente otras) que pueden estar en bancos de germoplasma y designar acciones tanto académicas como políticas para asignar recursos para el mantenimiento de los bancos de germoplasma. • Los proyectos deben tener como principio la valoración múltiple de usos de los RGF para un uso y manejo sostenible.
Investigación, entrenamiento y concienciación	• Existen iniciativas de avance en investigación y materiales de capacitación en RGF, gubernamentales y no gubernamentales.	• A nivel universitario y de otras instancias universitarias no son resaltados los RGF dentro de los programas de estudios. • Las instituciones científicas y técnicas no están ubicadas en los sitios de alta diversidad genética forestal.	• Concientizar y capacitar al personal profesional dedicado a la conservación de los recursos forestales de la Amazonía. • Crear centros de investigación científica en sitios cercanos a los ejes de diversidad genética forestal.
Políticas e instituciones	• Existen marcos legales y normativos sobre recursos forestales y en algunos países sobre RGF. A esto se agrega la información sobre inventarios forestales nacionales.	• La aplicabilidad de las normativas a nivel institucional y de país.	• Las políticas de ciencia y tecnología deben estar enfocadas en las regiones de alta diversidad forestal, así como tener en sus planes la conservación y uso de los RGF. • Asignación de recursos que permitan implementar las leyes en RGF. • Desarrollo de PSA en los países en relación a diversidad y el uso sostenible de los RGF.
Cooperación regional e internacional	• Existen fortalezas en algunas instituciones y su talento humano que trabajan en los RGF •	• No existe cooperación y alianza entre países amazónicos de América del sur en el tema de RGF •	• FAO, PNUD y otras entidades internacionales deben incentivar alianzas y políticas de cooperación en el tema de RGF entre los países del sur de Sur América

Tabla 3: Taller sobre Recursos Genéticos Forestales en América Latina 17-19 de octubre de 2012, Santiago, Chile

Cuadro para trabajo en grupos: CONO SUR

Área	Logros/ Fortalezas	Dificultades/ Debilidades	Acciones a tomar
Conocimiento de RGF	– Existen, mayormente acerca de especies introducidas – Por otro lado se tiene conocimiento básico, pero insuficiente, respecto a las especies nativas	– Empresas cautelosos a la hora de brindar información – Escaso financiamiento para programas y proyectos por parte de los gobiernos – Capacidades técnicas y profesionales insuficientes	– Fortalecer las alianzas público- privadas – Dotar de mayores recursos financieros a los distintos niveles de investigación
Conservación y Manejo de RGF	– Hay áreas de protección de las distintas formaciones y bancos de germoplasma (Ar.y Py.) – Legislación prohíbe el cambio de uso de la tierra (Uy. & Cl.	– Ar y Py existe cambio de uso de la tierra, mayor pérdida variabilidad genética de las formaciones boscosas – Institucionalidad dividida (Conservación vs. Productividad)	– Nueva legislación en Paraguay para el uso de tierra – Acelerar la implementación de las normativas de la Ley en Ar.
Investigación, entrenamiento y concienciación	– Existe investigación público/ privada – Existen cursos regulares de conservación de RRGG – Leve concientización	– Poca valoración de las especies nativas – Descoordinación en investigación vs. Producción y conservación práctica	– Unificar criterios de investigación con las brechas detectadas – Programas de capacitación con financiamiento externo – Falta de adopción de los programas por parte de las instituciones encargadas de investigación
Políticas e Instituciones	– Con excepción de Chile existen leyes de semillas – Existe marco legal e institucional	– Falta de coordinación regional para realizar procedimiento de control y adopción de nuevas especies – Falta de cobertura de control en límites territoriales – La legislación presenta algunas falencias.	– Foros de discusión para establecer objetivos y directrices comunes de trabajo – Aumentar recursos presupuestarios para contar con RRHH y equipos eficientes
Cooperación regional, internacional	– Gracias a organismos internacionales como: – FAO – LAFORGEN – JICA Otros	– Falta de recursos financieros propios de los países que estimule la cooperación regional	– Mantener la Cooperación Internacional – Dotar de presupuesto a las instituciones de Investigación

Forestry Department

Food and Agriculture Organization of the United Nations

Forest Genetic Resources Working Papers

Regional Consultation Workshop on Forest Genetic Resources in ***North Africa and the Near East***

Tabarka, Tunisia

Prepared by FAO in collaboration the Ministry of Agriculture of Tunisia

October 2012

Forest Assessment, Management and Conservation Division FAO, Rome, Italy
Forestry Department

Working Document FGR/xxx

1.0 Background

As part of the preparation process of the SOW-FGR, National focal Points from North Africa and Near East convened for a regional consultation workshop on the State of the World Forest Genetic Resources, which was organised by FAO on 16-18 July 2012, Tabarka, Tunisia. The workshop was organised by FAO in collaboration with the Ministry of Agriculture of Tunisia.

Participating countries were Algeria, Egypt, Iran, Iraq, Jordan, Lebanon, Mauritania, Morocco, Tunisia, and Yemen The list of participants is presented in annex.

2.0 Results of the needs and priorities

Working Group 1 – Near East Region

Core Themes	Achievement	Constraints	Action to be Undertaken
Knowledge of FGR	-FRA in some Countries -Biodiversity and Genetic diversity on selected species -Red Data Book (in some Countries) -Plant Genetic Resources, CBD Reports -Flora Publication (WEB Sites) -Gene Banks, Arboretum ,Herbarium, Labs -Thematic Maps(Forest, Vegetation) -Protected Areas	-Limited Resources -Lack of Red Data book -Limited/Absence of Research -Lack of information on threatened species -Lack of Forest Resources Assessment	- Undertaking and updating FRA -Improve communication Skills -Improve Ex Situ conservation -Preparation and Updating of Red Books -Improve in Situ Conservation -Improve access to information -Develop a Platform for Information sharing - Work on riparian ecosystems -Harmonize actions and terminology -Work on drylands ecosystems and rangelands - Include the FGR conservation objective in the PAs
Management of FGR	-Protected Areas -In situ conservation -Seed collection -Seed Estimation (Qty) - Traditional management practices (hima, maqam) - Urban forestry - green belts	-Lack of seed orchards -Lack of seed management techniques - Drought , water unavailability -Lack of certified resources material -Forest Fire -Invasive species - Lack of information on provenances -Overexploitation -Lack of skills for urban forestry -Lack of criteria and indicators for Sustainable Forest Management -Climate Change -Lack of skills for forest Management -Lack of Data on Urban , peri-urban species - Lack of PAs representing all ecosystems and distribution zones	-Implement/identify seed orchards -Improve seed collection systems -Improve seed management systems -Improve risk Management -Implement Sustainable Forest Management and Criteria and indicators -Improve Management of Specific Ecosystems -Utilization of Appropriate Reproductive material for reforestation -Use of Alternative water resources -Monitor invasive Species -Integrate climate change in national forestry program -Improve management of urban forestry -Participatory approach to

			management of FGR -Implementation of PAs Networks to cover all ecosystems
Research, awareness, Training	-Seed studies and collections -Botanical Gardens -Ex Situ/In Situ / In Vivo conservation -Increased Awareness of Forest dependent people and stakeholder -Improved management, exploitation and processing of forest and range products -Genetic Improvement of selected species	-Lack of documents studies -Lack of Genetic improvement for issues specific to region (salinity, drought, Resilience, Wood production, NWFP) -Lack of educational programs on FGR (Universities) -Lack of applied research -Lack of Awareness at all levels	-Link work on Genetic improvement to meet social and environmental demands -Develop genetic variability studies on main species -Identify priority species -Valorization of priority species characters -Improve capacity building at all levels for management, handling, … of FGR -Raise Awareness at all levels on FGR -Studies on economical values of FGR - develop education programs at university level
Institutions Policies	-Legislation on utilization of forest and range resources -Certification system for some FGR (clones progenies…) -Development of policy instrument for protection of FGR	-Lack of policy tools to improve knowledge -Fragmentation of forest related programs and responsibilities -Limited human and financial and technical resources -Lack of access to sector related technologies -Lack of NFP - Lack of vision and policies - Lack of willingness -Lack of seed Banks, Gene bank	-Develop NFP strategies and coherent policies -Improve institutional set-up for development and implementation of NFP -Improve access to technologies -Develop specific legislation on conservation and management of FGR - Elaborate a strategy for the conservation and management of FGR
Regional and international cooperation	- Availability of some bilateral international cooperation - Regional meetings -Preparation of national state of FGR -CBD COP 10 Decision to improve FGR in LFCC -MOU between TPS for LFCCs, CBD on improvement of FGR - Existing networks such as sylva mediterranea - revival of sylva med network on fgr	-Limited proactive role and advocacy of regional forest and rangeland ecosystem issues in international fora (LFCC, dry land system, palm formation) -Lack of recognition of specific ecosystems -Lack of regional monitoring system -Lack of regional and international efficient cooperation	-Develop and implement trans-boundary protected areas -Facilitate exchange of genetic material -Improve ex situ conservation within the region -Expert exchange and information sharing within the sub-region and the region (south-south cooperation) -Improve and facilitate exchange of experts and information at global level - Promote cooperation between the different countries on management and conservation of FGR -Develop regional projects addressing the gaps identified at national levels - Empower existing networks such as Sylva mediterranea - continue and develop regional conservation and improvement Programs for priority species previously identified in the region (cedar, cork oak, juniperus, pines, carob, abies…)

Working group 2- North Africa

Axe/Thème	Acquis	Contraintes	Actions à entreprendre
Niveau de connaissance des RGF	Bonne connaissance de la diversité spécifique (liste des espèces)	Insuffisance de l'expertise nationale	Former et recruter des spécialistes en RGF
	Niveau de connaissance moyenne/insuffisante de la diversité génétique intraspécifique	Insuffisance des connaissances sur la diversité génétique intraspécifique. Absence de base de données.	Développer les recherches et les études sur la diversité génétique et les RGF
	Inventaires forestiers partiels et anciens (non à jour)	Inventaires forestiers partiels et anciens (non à jour) ou absents	Réaliser et / ou actualiser les inventaires forestiers
	Connaissance partielle concernant les espèces rares et menacées d'extinction	Manque de coordination entre les institutions.	Mise en place d'un système ou unité de coordination nationale
	Connaissance concernant les principales espèces utilisées	Insuffisance des échanges et de la capitalisation des connaissances et informations (exemple : multiplicité des listes)	Instaurer une unité de coordination et de capitalisation des connaissances
	Existence de catalogues de semences conservées dans les banques de gènes	Insuffisance des moyens financiers	Rendre disponibles les moyens financiers pour la conservation *in situ* et *ex situ* des RGF
	Rapports nationaux sur les RGF		Réviser la liste des espèces rares et menacées d'extinction
Conservation et Gestion des RGF	Existence d'aires protégées couvrant les différents écosystèmes	Dégradation des écosystèmes forestiers sous les pressions biotiques et abiotiques (sociale, surpâturage, incendie, désertification)	Promouvoir et appuyer l'intégration des aspects liés aux RGF dans les plans d'aménagement et de plantations forestiers
	Existence de plans directeurs et de plans de gestions des aires protégées	Manque de moyens pour la mise en œuvre des plans directeurs et de gestion des aires protégées	Elaborer et mettre en œuvre des programmes de conservation des RGF *in situ* et *ex situ*
	Existence de dispositifs de conservation *ex situ* (banques de semences, parcelles conservatoires/arboreta)	Manque de moyens pour la mise en œuvre des plans directeurs et de gestion des aires protégées	Mettre au point des indicateurs pour le suivi et l'évaluation de la conservation des RGF
	Importants efforts de reboisement	Absence de règlementation sur l'utilisation/mouvement du matériel forestier de reproduction	Accorder une importance dans l'usage de matériel végétal lors des plantations et élevage en pépinières
	Zones de provenances délimitées, et parcelles semencières pour certaines espèces principales utilisées	Aménagement des forêts ne tiennent pas compte des aspects liés aux ressources génétiques	Rendre disponibles les moyens matériels nécessaires pour mener à bien les programmes de conservation et gestion des RGF
	Existence de programme de sélection et d'amélioration génétique de certaines espèces principales utilisées	Insuffisances des compétences humaines et des moyens financiers pour mener à bien les programmes de conservation et de gestion de RGF	Formation des experts et des parties impliquées dans la gestion des RGF
		Manque de matériel génétique amélioré et performant	Améliorer la qualité et la quantité de l'approvisionnement en semences forestières
Recherche, Formation, Sensibilisation	Existence d'institutions, infrastructures et programmes de recherche et de formation forestières	Manque de spécialistes des RGF	Renforcements des capacités en recherche, formation et sensibilisation
	Maitrise des techniques de multiplication des principales espèces utilisées	Absence de stratégie de sensibilisation aux RGF	Elaborer et mettre en œuvre une stratégie de communication et de sensibilisation aux RGF avec tous les

			partenaires concernés, pouvant comprendre des sites web et base de données sur les personnes ressources
	Intérêt des espèces autochtones est bien perçu	Absence de formation universitaire en RGF	Réintégrer les RGF dans les programmes de formation à tous les niveaux
		Connaissances limitées sur la valorisation des RGF	Promouvoir la valorisation et l'exploitation rationnelle des RGF
		Insuffisance de la diffusion et de l'application des résultats de recherche en RGF	Améliorer la communication et la coopération entre la recherche et les gestionnaires pour une meilleure diffusion et contribution de la recherche à la conservation et à la gestion des RGF
Politiques et Institutions	Rapport national sur les RGF approuvé par le comité de national	Manque de stratégies pour la conservation et la gestion des RGF	Elaborer une stratégie nationale sur les RGF, dans le cadre des PFN
	Existence de cadre juridique	Faible application de la réglementation en vigueur	Mettre à niveau les textes juridiques
	Multiplicité d'intervenants actifs, dont des ONGs, dans la région	Manque de dispositif de coordination (comité national)	Etablir un comité national sur les RGF
	Existence de réseaux régionaux sur les RGF	Discontinuité de l'appui aux programmes de conservation des FGR	Rendre disponibles les moyens nécessaires à la mise en œuvre des programmes de conservation des RGF
	Existence de comité national sur les RGF (dans certains pays)	Accès au RGF et partage des bénéfices ne sont pas règlementés	Ratifier le Protocole de Nagoya et élaborer une réglementation nationale sur l'APA
	Engagement national dans le domaine de la protection de l'environnement (existence de plans d'action)	ONG peu impliquées	Promouvoir et appuyer la participation du secteur privé et des ONG dans les programmes de conservation et de gestion des RGF
			Promouvoir la certification du matériel forestier de reproduction

Points à ajouter :

- Bonne gouvernance comme question de gestion durable des forets
- Appui au savoir faire locale et développer les marches
- Organiser le commerce
- Formation des locaux sur la valorisation des RGF
- Echange des expériences et réussites entre les pays de la région

List of Participants

Liste des participants à l'atelier régional RGF TCP/RAB/3303			
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REGIONAL WORKSHOP ON FOREST GENETIC RESOURCES
IN THE NEAR EAST AND NORTH AFRICA
16-18 July 2012, Tabarka, Tunisia

Tentative Programme

Sunday	**15 July**	**Tunis - Tabarka**
	Participants arrive and assemble in Tunis for transfer to Tabarka by transport arranged by Organizers	
Monday16 July	**Tabarka**	
8.30 – 9.00	Registration	
9.00 – 9.30	Opening - Programme and Objectives of the Workshop	
9.30 – 10.30	Presentation of key findings and recommendations of Country Reports on FGR	
10.30 – 11.00	Coffee break	
11.00 – 12.30	Presentation of key findings and recommendations of Country Reports on FGR (Cont.)	
12.30 – 14.00	Lunch	
14.00 – 15.00	Presentation of preliminary draft regional report and proposed process for its review and finalization in sub-regional working groups	
15.00 – 16.00	Sub-regional working groups to review and finalize regional report	
16.00 – 16.30	Coffee break	
16.30 – 18.00	Sub-regional working groups to review and finalize regional report (Cont.)	
Tuesday	**17 July**	**Tabarka**
8.30 – 10.30	Sub-regional working groups to review and finalize regional report (Cont.)	
10.30 – 11.00	Coffee break	
11.00 – 12.30	Sub-regional working groups to review and finalize regional report (Cont.)	
12.30 – 18. 00	Lunch and Field visit	
Wednesday	**18 July**	**Tabarka - Tunis**
8.30 – 10.30	Presentation of results of working group sessions on the regional report, discussion and synthesis	
10.30 – 11.00	Coffee break	
11.00 – 12.30	Presentation of results of working group sessions on the regional report, discussion and synthesis Final draft.	
12.30 – 13.00	Closing session	
13.00	Lunch and Transfer to Tunis	
Participants will leave Tunis on Wednesday 18 evening or on Thursday 19 July, according to flight availability		

Forestry Department

Food and Agriculture Organization of the United Nations

Forest Genetic Resources Working Papers

Regional Consultation Workshop on Forest Genetic Resources in ***the Pacific countries***

Nadi, Fiji

Prepared by FAO in collaboration with the Secretariat of the Pacific Community (SPC)

October 2012

Forest Assessment, Management and Conservation Division FAO, Rome, Italy
Forestry Department

Working Document FGR/xxx

1.0 Introduction

Genetic resources, including forest genetic resources, are among the most valuable assets that a country possesses. Throughout the Pacific Islands, and especially in Melanesia, there is a need to improve forest management to ensure a more sustainable use of forest and tree genetic resources. Reforestation and tree planting programs using both indigenous and introduced tree species need to be further encouraged and developed in the Pacific Islands.

The regional "Strategies and Action Plan for the Conservation, Management and Sustainable Use of Forest and Tree Genetic Resources in the Pacific Island Countries and Territories (PICTs), 2007-2015 was formally endorsed by Pacific Heads of Agriculture and Forestry Services and approved by Ministers of Agriculture and Forestry at their regional meeting in Apia, Samoa in September 2008. The Action Plan presently serves as a framework for planning and implementing the conservation, management and sustainable use of forest and tree genetic resources within the PICTs.

The Commission on Genetic Resources for Food and Agriculture (CGRFA) acknowledged the urgency to conserve and sustainably utilize forest genetic resources. The Commission requested that a *State of the World's Forest Genetic Resources* (SOW-FGR) report be prepared and presented to the Commission at its Fourteenth Session, in April 2013.

The SOW-FGR is prepared through a country-driven approach. Country Reports on Forest Genetic Resources (FGR) are the primary source of data and information for the preparation of the Report. Detailed guidelines for Country Reports were prepared to assist countries undertake a review of existing data and information, and to perform an assessment of the status and trends of FGR, including management capacities and needs.

In January 2011, SPC, in collaboration with FAO and CBD, organized and held a regional workshop to train and assist National Focal Points in preparing country reports on forest genetic resources. Following the workshop, most countries have been preparing their national reports using a participatory approach involving concerned stakeholders, and using this exercise as an opportunity to prepare or update national strategies and programs for the conservation and sustainable use of forest genetic resources. Although it was not possible to satisfy all the requests, FAO provided support to a number of countries In the Pacific to prepare their reports.

A second series of regional synthesis workshops was organized in September 2012 to discuss the findings of the country reports. The workshops had two specific objectives: 1)to share main findings and recommendations of country reports for the SoW-FGR; 2) to review, identify and finalize a regional synthesis report including needs, priorities for action at regional and global levels, and options for follow-up to the SoW-FGR.

The workshop was an opportunity for FAO and its partners to provide technical assistance in the review of the initial drafts of Country Reports assess progress made, discuss issues and limitations of their elaboration, and provide recommendations for finalization.

2.0 Opening Ceremony

In their welcome address, Mr. Cenon Padolina of SPC and Mr. Oudara Souvannavong of FAO thanked the participants for their continued commitment to contribute to the preparation of *The State of the World's Forest Genetic Resources*.

In the keynote address of the Chief Guest, the Permanent Secretary of the Ministry of Fisheries and Forest of Fiji, Mr. Inoke Wainiqolo, warmly welcomed all participants to the meeting and thanked FAO for their support. He mentioned that the workshop marks the continuation of the progress made since the January 2011 regional workshop in Nadi (Fiji) on the "preparation of the State of the Worlds Forest Genetic Resources" and the achievements to date on this collaboration in the Pacific and between Stakeholders and Development partners.

3.0 Technical Session – Country Presentations of their Findings and Recommendations

The Technical Session formally started with Mr. Oudara Souvannavong of FAO providing an update on SOW FGR- preparation process including preparation of country reports and thematic studies, workshop objectives and programme, clarifications. He reminded all participants on the process of preparation of the State of the World Forest Genetic Resources itself and of the different steps which have been taken to date and where we are now and which are the next steps.

The following were the highlights of the country presentations:

a. Australia (by Dr David Cunningham**)**

- Australia's forests at a glance
    - Total log volume harvested: **26.5 million cubic metres**
    - Total imports of wood products: **$4.4 billion**
    - Total exports of wood products: **$2.5 billion**
    - Employment in forestry, logging and wood manufacturing: **66 000 people**
- Australian forest genetic resources
    - Approximately 2500 tree species
    - Approximately 200 are of current commercial significance in Australia or overseas

- Global use of Australian FGR
    - Trees of several Australian genera (*Eucalyptus*, *Acacia*, *Grevillea*, *Casuarina*, *Melaleuca*, *Macadamia*) are grown extensively overseas for a variety of commercial wood products, fuel, food and soil conservation uses
    - The Australian Tree Seed Centre (ATSC) has supplied more than 200,000 certified seed lots from over 1000 tree or shrub species to researchers in over 100 countries since the early 1960s

- Australian use of global FGR
    - 2 million hectares of plantations
        - Half are native species (*Eucalyptus globulus, E. nitens, E. grandis* etc.*)*
        - Half are exotic species (*Pinus radiata* and other *Pinus* species and hybrids)

- Regional engagement with FAO processes on genetic resources
    - Australia and New Zealand co-chair the FAO South West Pacific region
    - Australia represents the SWP region on the Bureau of the Commission on Genetic resources for Food and Agriculture (CGRFA)
    - SWP member countries, including Australia, represent the region on a number of Intergovernmental Technical Working Groups (ITWGs) on Genetic Resources for Food and Agriculture – plant, animal, forest GR and access and benefit sharing (ABS)
    - PNG and Vanuatu represent SWP on the ITWG-Forest Genetic Resources

- CGRFA ABS working group
    - Australia and Palau will be attending the meeting of the working group on access and benefit sharing from 11-13 September 2012 (in Norway)
    - Working group's focus is to identify options to assist countries in implementing Article 4 (the Plant Treaty) and Article 8 (special needs of food and agriculture sector) of the Nagoya protocol
    - Papers for the meeting have been circulated to SWP members through SPC (contact: Valerie Saena Tuia)
    - A list of discussion questions have been provided to gather information for the SWP representatives on the needs of the region

b. Federated States of Micronesia (by Ms. Marlyter Silbanuz**)**

- Mainstream environmental considerations, including climate change, in national policy and planning as well as in all economic development activities
- Improve and enhance the human environment (improve waste management and pollution control)
- Reduce energy use and convert to renewable energy sources/minimize emission of greenhouse gases
- Make FSM's genetic resources accessible for utilization and ensure benefits derived are equitably shared amongst stakeholders
- Manage and protect natural resources/protect, conserve, and sustainably manage a full & functional representation of the FSM's marine, freshwater and terrestrial ecosystems
- Improve environmental awareness and education and increase involvement of the citizens of the FSM in conserving their country's natural resources
- Establish effective Biosecurity (border control, quarantine and eradication) programs to effectively protect the FSM's biodiversity from impacts of alien invasive species
- Create sustainable financing mechanisms for environmental and sustainable resource initiatives
- Enhance and employ in-country technical capacity to support environmental programs.

c. Fiji [by Mr. Binesh Dayal)

- FGR diversity is well distributed in the 2 main islands but there are some cases of species endemism to specific sites only

- Prudent to initiate biodiversity study to determine the main endemic species in order to develop FGR conservation strategies for the important species
- Utilization of FGR, the major commodity exploited from the forest is that of timber trade through forest logging
- Over 30 different tree species are classified as obligatory species
- NFTP resources utilization is not well documented except for *Santulum* trade which is going on at some unregulated intensity
- Low demand for seed sales while medicinal plants are well appreciated in the different sector's of the community
- Trees serve at least 12 ecological functions, 70 cultural uses and provide up to 75% rural income

d. Kiribati (by Ms. Tearimawa Natake**]**

- Pandanus highly used for foods, construction materials, grafting, medicines
- Mangroves found in most of the islands
- 4 mangrove species native to Kiribati *(Rhizohpora stylosa, Sonneratia alba, Lumnitzera littorea, & Bruguiera gymnorrhiza)* all found in Butaritari Island

e. Nauru (by Ms.Taralyn Hiram)

Due to increase threats from climate change and variability, sea level rise, loss of biodiversity and the current economic situation in Nauru, there is a critical need for a three-pronged program to ensure sustainability of ecology and cultural benefits.

The 3 Components of this program are:

1. Coastal & inland forest protection and conservation
2. Coastal planting and household agroforestry, and
3. Rehabilitation, replanting and resettlement of the mine out lands on Topside

f. Palau (by Mr. Larry Mamis)

- Lack of policy- Palau Forestry has been assisted at state level on building their Forest Act (two states have already started with their Forest Act development)
- Population increase as well as development-Palau Forestry through FRM has been helping farmers on sustainable forest management

- Lack of understanding on the importance of forests and trees- method of agro-forestry been taught and implemented in most states
- Inadequate knowledge on the importance of forests and trees- Created more public awareness on forest and tree importance.

Conclusions and Recommendations from Palau:

- Workshops and public awareness programs should be conducted to address the importance of forests and trees.
- Survey to be carried out to identify species near extinction
- Information/knowledge sharing with other Pacific Island countries
- Formulate policies regarding Forests and Trees

g. Papua New Guinea (by Prof. Simon Saulei**)**

- The Current State of Forest Genetic Resources
    - PNG covers a land area of approximately 46.17 million ha, of which 5.6 million ha comprises the islands, including New Britain, New Ireland, Bougainville, Manus and other smaller islands.
    - Over 63% (294,000km^2) is the forested land compring over 20,000 vascular species of plants, of which approximately 30% are considered Endemic.

  This great diversity can be accounted for from the country's origins:
    - Gondwanaland Southern Continent Flora e.g. Gymnosperms at high altitude
    - Southeast Asian Flora e.g. Some of the lowlands Flora – Dipterocarps
    - Native or Indigenous Endemic Flora - e.g., Lowlands/High altitude floras – orchids, bamboos,
    - Oceanic
    - Non native invasives
    - Recent introductions (exotics)

- The State of *in situ* Genetic –Conservation
    - Protected forests – Conservation Areas Conservation Areas
        - Conservation Areas
        - National & Provincial Parks & Reserves
        - Reserves

  - Wildlife Management areas
  - Wildlife sanctuaries

- Production forests

  –FMA with >30% for conservation

  - Buffer Zones and areas of cultural, scientific and educational importance
  - Forest Management areas (Plans and LCP, Certification)
  - Natural Seed Sources
  - Phenological Studies
  - PSPs

- The State of *ex situ* Genetic Conservation
  - Trials of native and exotic tree species
  - Seed banks and seed orchards
  - Germplasm collections
  - Clonal banks
  - Tissue culture
  - Tree breeding
  - Arboreta
  - Village gardens
  - Species and provenance trials

- The Contribution of Forest Genetic Resources to Food Security, poverty Alleviation and Sustainable Development
  - SFM, RIL
  - NTFP
  - PES including REDD plus
  - Future Mainstreaming of NTFP, PES and REDD

- The State of Use and Sustainable Management of Forest Genetic Resources
  - Commercial
  - Traditional
  - Future potential use

- Threats – Economic development programs, fire, insect and pathogenic attacks and invasion by non native invasive
- Impacts of Climate Change
- 75% of the Country report is now completed

h. Samoa (by Mr. Aukuso Leavasa)

- Forest Resources will continue to play a major role in the socio-economic well being of Samoan people
- Conservation and protection of forest genetics resources must be a priority
- Several tree species with high significant in terms of cultural and economical values and are becoming rare & threatened due to over exploitation high rate of deforestation in Samoa
- *Intsia bijuga*, *Manikara hoshinoi* and *Terminallia richii* are some of Samoa's rare and threatened species
- They should be given priority for conservation
- Establishments of new conservation areas
- 4 new National Parks were approved by cabinet 2008
- Develop and formulate appropriate forest policies
- Sustainable Forest Management Policy 2007
- Developed a code of logging Practices. COLP 2004
- Control Measures Applied for Invasive Species
- A consultant is required to compile this report

i. Solomon Islands (by Mr. Richardson Raomae)

- Assessment of Reports from Government Ministries, NGOs, Institutions and organization
- Travel to Provincial centers (Malaita, Western & Renbel Provinces to solicit additional data)
- First Draft report produced & circulated to Ministries and stakeholders
- Second Draft produced during a one day stake holders' meeting, the second draft was circulated.
- Customary land owners don't link FGR to food security
- Agriculture department programs focus mainly on; national food security, provincial food banks, crop diversification, tolerant crop species and rapid response to disasters
- Forestry functions confine mainly to; log & timber export, downstream processing and reforestation

- NGO's work in isolation
- Country report is in its third draft now awaiting endorsement from government

Recommendations from Solomons

- Directing forest management objectives to people's food security need
- Broaden the range of products produced by forests- food and other items- and improving their supply to local people through new management approaches and access arrangements
- Encourage tree growing on farms using species management approaches that complement crop and livestock production, help protect the environment, provide income to farmers, and assist them spread risks
- Promotion of agro forestry systems and supporting small scale forest-based enterprises by ensuring a sustainable supply of input materials, providing managerial and technological assistance
- Providing market support to help rural people get a better price for the forest products they sell, and secure a more sustainable livelihood

j. Tonga (By Ms. Olivia Funaki)

- Lack of skilled staff – continuous training, upgrading needed for sustainability
- Land Tenure system – do not protect trees
- No national inventory – need to identify areas and declare National Park / Reserves / Protected
- Record keeping - documented data
- Lack of Fund and Technical support
- Lack of public awareness & education
- Review of Forest Legislation
- National Forest Inventory
- National Forestry Strategic Plan
- Enforcement of Forest Legislation and Forest Codes of Conduct
- Building capacity – FGR
- Encourage tree planting on tax allotments and leased land
- Encourage harvesting of senile palms and replanting
- Sandalwood policy – replanting / utilization
- Develop sawmill policy

k. Vanuatu (by Mr. Hanington Tate**]**

- Funding – Government does not have the money for this activity
- Everybody busy or have their own work to do
- Nobody want to help although all say it's important
- Data sources – no uniform storage
- Collection & update of data
- Implement forest conservation strategies (Kauris, whitewood and sandalwood)
- More effort on in-situ & ex-situ conservation of certain species
- Good documentation of use and development of FGR

4.0 Sub-Regional Synthesis on Priorities and Strategies, Achievements, Constraints, And Actions to be Undertaken for Conservation, Management and Sustainable Utilization of Forest Genetic Resources in the Pacific

The Workshop participants were divided into three groups, namely the Melanesian, Micronesian and Polynesian Groups to discuss and present their priorities and strategies, achievements, constraints and actions to be undertaken for conservation, management and sustainable utilization of forest genetic resources in the Pacific.

A. MELANESIAN GROUP – FIJI, PNG, SOLOMON ISLANDS & VANUATU

R&D Priorities & Strategies	Achievements	Constraints	Actions to be undertaken
Germplasm supply & exchange	FJ -MTA developed. Germplasm for Myristica spp supplied for research purposes outside the region, seed collection for reforestation, plantation establishment, seed storage & sales PNG – MTA developed – processed for approval. National Tree Seed Center supplying seeds to China, Australia, SE Asia, Fiji. Exchange seeds – Uruguay, Paraguay, and also seed collection for reforestation, plantation establishment, seed storage & sales Vanuatu – MTA endorsed. Supplying seeds to local tree farmers, SI – MTA developed. Supplying seeds to the member countries and outside the region. Tree breeding and improvement program continue in SI	FJ - Processes with SG's office – lack of understanding FGR, bio-security issues for all countries, low seed production, quality seed, phenological changes, funding to do the collection, private seed sales. Lack of expertise in SI.	FJ - PS to follow up with SG's office. Policy developed for private seed sales – FJ & PNG. Storage facility to commence storing seeds. Specific training for Forestry officers on tree breeding and improvement in SI.
Food security, nutrition & health	FJ – reforestation programs under the COWRIE, WANI & One Million Tree incorporated Food security as one of the thematic areas to be tackled by planting fruit & medicinal trees and promoting food security & health. List of tree species known to be medicinal plants have been prepared jointly with USP-IAS and incorporated in a manual produced under the COWRIE project. Also, to promote agro-forestry (inter-cropping). Awareness was also a crucial component of these programs promoting forest foods – community forestry & watershed management PNG – community forestry programs that looks into agro-forestry (inter-cropping) practices to promote food security SI – Agro forestry activities developed with ACIER, National programs on food production and improvement by the Agriculture dept. Vanuatu – promote agro-forestry activities, promote nut and forest fruit species (Canarium & Terminalia)	PNG - Lack of interest in forestry agency; growers are not interested as they are very much dependant on their cash crops, Vanuatu – govt. financial support to forestry has continued to decrease. Lack of mainstreaming between forestry and agriculture in SI.	Policies to be develop to address food security issues and research work to be undertaken. Strategy to be developed for Canarium & Terminalia for TI and domestication. A need to establish network between stakeholders in SI.
Reforestation and forest rehabilitation	FJ – reforestation programs under the COWRIE, WANI, One Million Tree (IYOB & IYOF), Forest Ecosystem rehabilitation & Conservation International's reforestation program – 62 tree species (50 natives & 12 exotics) – area managed under specific projects 1,943.28 ha for 2010 to current, research on woodiness of plant (ability to recover), reforestation programs targeting thematic areas such as climate change mitigation and adaptation, food securing, watershed management , totem plants, medicinal	Land tenure issues, implementation and monitoring, increase or diversifying species use in plantation to cater for potential impacts of climate change. Lack of marketing opportunities in SI for thinned trees.	Reduce & eventually ban log exports, develop and implement mechanisms for accessing land, increase R&D efforts for domestication and improvements of native species for use in plantations

	plants, traditional plants, ridge to reef initiatives, invasive species, PNG – Policy developed on reforestation, IYOF – planted 3 million trees, domestication of native tree species for plantations, development strategies and Vision 2050 basically to increase size of plantations, Forest Development & Reforestation in the SI with communities- 14,500 hactares, KFPL, 14,000 ha. Eagon, 14,500 ha		
Climate Change	PNG – Policy framework, REDD Plus Strategy, Adaptation strategy yet to be put in place FJ – REDD Plus Strategy developed, govt. provided support to implement REDD Plus activities (mitigation & adaptation) including conservation in a watershed system, mangrove ecosystem and river forest system – achievement Emalu forest assessed for watershed systems. Coastal protection – planting mangroves under specific reforestation programs and JICA funded program (OISCA) of planting ideal tree species in coastal areas on sites identified as being threatened from rising sea levels from global warming. Development of a climate change policy in SI is in progress.	Understanding the science of climate change, National focal point is from the Ministry of environment and conservation and Forestry programs are key climate change mitigation programs under the Ministry of Forestry in SI	National Policy, financial mechanism for REDD, R&D on trees for adaptation for susceptible to cc impacts
Traditional Knowledge	PNG – Documentation, IP Policy FJ – community awareness, reforestation program also included the cultivation of traditional important trees and the production of "A Guide to Forest Restoration using Tree Species" under the COWRIE project briefly describes some 100 native tree species thus promoting traditional knowledge and "How to build a Simple Low Cost Community Nursery" promoting the use of available resources and using local traditional knowledge to build the nursery and propagate seedlings. Also creating awareness on traditional knowledge on important tree species for medicinal, Documentation of traditional uses of medicinal trees in SI joint program with JICA	Access, FJ – limited funding to print more copies for distribution	National Policy on TK and related IP issues
Environmental Services provided by forests	PNG – NGOs education and awareness Programs, Environment and Conservation Policy, Forest Policy FJ – strengthened awareness programs incorporated in reforestation programs (COWRIE, WANI, One Million Tree – IYOB & IYOF, Forest Ecosystem Rehabilitation, Community Forestry, CI and NGO's. List of tree species that provide environmental services developed jointly that was produced with USP-IAS under COWRIE project for some 100 native tree species, Implementation of the SI- National Environment	Education and awareness, implementation and monitoring	PES Policy, R&D into PES

	Strategy. Establishment of various conservation programs promoted by NGO's such as WWF, Tetepare association and other agencies in SI.		
Invasive species, pests and diseases	PNG - collaboration with SPC and AQUIS, R&D into pests and diseases FJ – ACIAR project – detecting monitoring systems for forest pests and diseases in the Pacific, Fiji Forest Policy Statement 2007 highlighting forest protection priorities, strategies and actions developed during the APFISN workshop in Beijing 2011, FH activities on-going currently incorporated in our BP for its implementation	Capacity and funding, Awareness and education FJ – staff transition, lack of knowledge, indiscriminate burning of forests is a critical issue	PNG - National Policy & Management plus FJ – capacity building for new staff through research collaboration with international research institutions & greater awareness on forest fires importance of FGR
Forest and tree products market development	FJ – commodity profile for 4 species developed (Mahogany, Sandalwood, Coco Wood & Bamboo) Sandalwood development project at national level – funding support provided by the govt 2010 - 2013 PNG - Database established. Value added timber association currently established by the Forestry Department to promote marketing of sawn timber in SI.	Lack of capacity	FJ – need for additional staff to undertake activities PNG – Promotion and Marketing, Market surveillance for product niche, standards and certification Policy
Community and agro-forestry management	FJ – awareness to communities to promote the conservation of FGR and moreover FGR through the specific reforestation programs. 2 agro-forestry plots established in Naitasiri under the One Million Tree Program – soil stabilization program PNG - R & D programs. Small holder reforestation program is also targeting agro forestry and social forestry activities.	Lack of interest, value and appreciation of forest	Need for more networking and collaboration with the Land-use Division of the Ministry of Agriculture PNG - Policy
Endangered species, populations and habitats	FJ – 9 bio-diversity surveys conducted in the country and reports compiled for field assessments made PNG - R&D, Collaboration with DEC, DAL, NARI. Studies are planned for assessment of endangered species in SI.	Funding is the main issue. Lack of expertise in SI.	PNG - Policy and Management Plans
Sustainable forest management	FJ – assessment of SFM pilot project sites, awareness programs for the sustainable use of FGR, value adding to promote the maximum utilization of forest resources and reduction of wood waste Policy, NLCOP, P & NFP, NFDP, OP, EIS SI forestry bill is currently facilitated for approval. Currently work on creating a reforestation Policy.	Funding is the main issue. Timber industry dominates economy making it hard for resource owners to manage forest in SI.	Carbon assessments in project sites PNG - Evaluation of effectiveness of current strategies

B. MICRONESIAN GROUP – KIRIBATI, PALAU, NAURU & FSM

	Achievements	Constraints	Actions to be undertaken
Knowledge of FGR	Germplasm supply and exchange-Pohnpei and Yap has received assistance on this from SPC Flora books (2) have been completed (Nauru) Flora collection started since 2002 in Kiribati	No documentation been shared on varieties and types received for what purposes Minimum distribution due to lack of copies	Need to conduct a national census on germplasm supply and exchanges materials To be widely distributed (schools, USP centre)
	Food Security , Nutrition & Healthy-Agroforestry home, kitchen garden in most households	Limited supplies Poor soil for plant growth Pest & diseases Marketing access Poor transportation & facility	Develop genebanks Composting techniques Use local materials-control methods Need support of government, local leaders , government leader
	Reforestation & forest rehabilitations – Pilot Programs	Lack of equipments Lack of technical expertise	Seek financial support
	Climate change-More awareness outreach has been conducted and solution (replanting resistant crop varieties)of mitigation to CC	Need to identify more potential crops	Seek more collaboration with corp. agency for technical assistance
	Traditional knowledge- We learned from our grand-grandparents through partners passed to our young generation Youth-youth programs	Lose of traditional of doing good stuffs Parents not teaching own children Not highlighted in school curriculums	Include more local knowledge in school curriculums Followed traditional way of life Parents – start on early childhood learning on traditional knowledge
	Environmental services from forest-Rehabilitation has begun , water, eco-tourism ,productive soil and clean environment	Lack of proper planning in place Lack good varieties of trees to plant Lack of restrictive measures	Proper planning More proactive planning Identify and initiate restrictive measures EIA in place
	Invasive species Pest & Diseases- Task force committee established and control measures taken more forward planning	poor coordination within communities and implementation agencies	Seek more support from government Awareness campaign Improve implementation approach in communities
	Forest & Tree products market development- More market established for domestic and tourism	No tree policy in place More potential tree species need to be identified	Need a technical assistance in established tree product policy Potential species tree to be replanted There should be an EIA in place
	Community and agro-forestry management- Introduced and practiced at grass-root level Integrated Farming system	Lack of essential garden tools Needs of Planting materials Control measures on Pest & Diseases.	Financial assistance from Donor Agencies Training on propagation methods and techniques Identification of the best control measures
	Endangered species populations & habitat In-situ & Ex-situ (Field Gene Bank)	Limited land space to accommodate more species Lack of accessibility to and fro	Need for national Government's support on extension of Land-use Need to establish budget for transportation means

	Sustainable Forest Management Sustainable land-use practices; Proper Waste Management (Organic Waste material) Proper harvesting practices	Lack of appropriate policies in place Lack of facilities and appropriate space Lack of environmental capacity in waste management	Train personnel in integration proper practice measures Rehabilitation methods (FUKUOKA) aerobic methods Expand capacity building with at higher degree levels
Area	**Achievements**	**Constraints**	**Actions to be undertaken**
Management of FGR	Germplasm supply and exchange-conserve biodiversity , assist in sustainable management developments	Country have limited knowledge	Improve country driven approaches
	Food Security , Nutrition & Healthy-conserve and mass produce of nutritional species of crops	Limited knowledge of nutritional species	Conduct more public awareness on nutritional crops Need to link up with involve agency to move forward
	Reforestation & forest rehabilitations – shade house in place, more indigenous species propagated with control measures	Limited awareness of reforestation practices Lack of essential equipment and facilities	Conduct community outreach program on reforestation Seek donor supports agencies
	Climate change - Ongoing awareness programs - Identification of NPCC Demo sites	Limited technical expertise to administer programs Too many vulnerable sites to streamline selection	Need for technical expert Need technical assistance, financial support for expansion of site selection
	Traditional knowledge - Collection of vital traditional practices and skills through interviews - Database and compilation - Utilize existing traditional knowledge	- Lack of funds for compensation measures when initiating interviews - Technical problems with database system - Conflict of interest between traditional and westernized knowledge	Need of financial support from all relevant agencies. - Need training for technical person in this specific area - Need to emphasize and to re-adopt old ways in terms of traditional practices
	Environmental services from forest - Sustainable land management - Water quality and quantity - Improve and promote environmental values by conservation measures and rehabilitation of FGR	Lack of research to address environmental services values Limited hydrological skills & knowledge Lack of coordination and awareness	Need to emphasis the importance of capacity building in attachment studies
	Invasive species Pest & Diseases-Local Task force committee established to maintain eradication program	Lack of coordination among country communities and task force committee Lack of involvement with implementation agencies	Improve community involvement in terms of management of their task force program activities

	Forest & Tree products market - development- Legislation Act - Non- timber forest product (Noni Juice) value added	- Poor management	- Appropriate training in tree product marketing
	Community and agro-forestry management- - Continues monitoring community and agro-forestry	- inconsistence monitoring within the agro-forestry units	Assigning of an officer (s) in responsible of monitoring & Reporting
	Endangered species populations & habitat - In Situ & Ex-Situ	- Insufficient staff - Lack of Government support - Lack of data input	-need government support
	Sustainable Forest Management Sustainable land - Clean & Green Project	- Lack of community support and involvement.	- Need to develop a policy to address SFM
Area	**Achievements**	**Constraints**	**Actions to be undertaken**
Research, Training, Awareness	Germplasm supply and exchange - Production & information of FGR	- Lack of publication of FGR information	Expansion of FGR to low- lying islands with appropriate activities to implement
	Food Security , Nutrition & Healthy - Actively Progressing	- Limited knowledge on the importance of food security and healthy food crops	- Training of Trainers on nutritional crops
	Reforestation & forest rehabilitations - Ongoing programs & projects	- Limited seedlings and garden tools	- Improve the Nursery or Shade house and supplies - Improve propagation methods
	Climate change - Ongoing Program and Projects - Identification and establishment of demo site vulnerability to CC - Identification of tolerant species that are more adaptable to the impacts of CC	- Lack of "know how" - Lack of proper facilities (laboratory) - Lack of coordination	- More funds for training and facilities - Capacity building for CC key players -
	Traditional knowledge - Ongoing at grass-root level	- No proper documentation	- Seek proper traditional knowledge for documentation
	Environmental services from forest- - Promotion of numerous environmental services - Feasibility Study	- Lack of existing budget - Feasibility study out-dated	- Need of financial support from Government and Donors agencies

	Invasive species Pest & Diseases- - Ongoing Program	- Lack of information and lack of budget	- Need of financial support from Government and Donors agencies
	Forest & Tree products market development - Non- timber forest product (Noni Juice) value added	- Lack of training on processing	- Need to identify potential Market value
	Community and agro-forestry management - Ongoing Program	- Limited awareness program	- Need community and Government support
	Endangered species populations & habitat - NA	- NA	- NA
	Sustainable Forest Management Sustainable land - Ongoing	- Needs more Community awareness	- Promotion Workshops on SFM
	Achievements	**Constraints**	**Actions to be undertaken**
Area	Germplasm supply and exchange - NA	- NA	- NA
Policies and Institutions			
	Food Security , Nutrition & Healthy - Established (long term crops)	- Limited planting materials	- Need of financial support from Government and Donors agencies
	Reforestation & forest rehabilitations - Nauru Rehabilitation Corp.	- Limited funds and rehabilitation equipment - Land dispute	- Review and revise the existing rehabilitation Plan
	Climate change - Ongoing Programs	- Lack of collaboration with Stake-holders	- Encourage team work
	Traditional knowledge - NA	- NA	- NA
	Environmental services from forest - Established	- Lack of collaboration with Stake-holders	- Need of consultation workshops
	Invasive species Pest & Diseases - Bio-security established	- Lack of Public awareness	- Need Government support

	Forest & Tree products market development - In place	- Lack of policy implementation	- Need Government support
	Community and agro-forestry management - NA	- NA	- NA
	Endangered species populations & habitat - Established	- Lack of policy implementation	- Need of technical assistance to identify the endangered species population and habitat
	Sustainable Forest Management Sustainable land - In place -	- Limited budget for implementation	- Need Government support and the Community as well
Area	**Achievements**	**Constraints**	**Actions to be undertaken**
Regional and International Cooperation	Germplasm supply and exchange- SPC	- Mortality high due to unskillful - Fragile	- Need training how to handle young plantlets - Skillful personnel to be in place
	Food Security , Nutrition & Healthy---SPC, Australia, UNDP, FOA,USP,WHO,GEF, TTM, China	- Poor communication - Limited information	- Strength communication among countries
	Reforestation & forest rehabilitations - FAO & SPC	- Lack of capacity in	- Need more training
	Climate change - CCRG ongoing	Lack of capacity	- Need more training
	Traditional knowledge - On going	- Lack of documentation - Limited sharing of information	- Need more training - Nee of sharing information
	Environmental services from forest - FAO & SPC	- Lack of documentation	- More training
	Invasive species Pest & Diseases- - FAO & SPC	- Lack of documentation - Limited sharing of information - Lack of coordination	- Nee of sharing information - Need more training
	Forest & Tree products market development - FAO & SPC	- Lack of' know how' - No policy or guideline in place	- Need more training

	Community and agro-forestry management - FAO & SPC	- Limited knowledge	- Need of a capacity building
	Endangered species populations & habitat - FAO & SPC	- Limited documentation - Poor communication	- Need of a proper documentation
	Sustainable Forest Management Sustainable land - FAO & SPC	- Lack of knowledge	- Capacity building - Right people in place

C. POLYNESIAN GROUP – TONGA, SAMOA & COOK ISLANDS

Area	Achievements	Constraints	Actions to be undertaken
Knowledge of FGR	- List of rare and threatened species - Identifications of priority species especially for cultural, commercial uses	- Lack of training in the biology and ecology of endangered species - Awareness raising among relevant Stakeholders	- Promote awareness, education and importance of genetic resources especially at the community level
Management of FGR	- establishment of demonstration plots and trials, seed orchards, nurseries - on-going development agroforestry system - balance of conservation and production objectives - new National Parks - Policies and programs on SFM	- invasive species threaten FGR - Insecure of Land Tenure - Lack of capacity for land owners - Lack of capacity to include environmental services into National Policies and implement practical actions - Economic focus on short term crops as opposed to forest tree species and agroforestry system - Difficult for land owners to change practices and accept changes - Relative importance of forestry compared to other sectors - Funding - Sustainability of resources including funded projects undertaken	- National Forest Inventory - Establish fruit tree seed orchards - reforestation and rehabilitation of degraded land - Promote agroforestry - Build technical capacity in management of nursery
Research, Training, Awareness	- successful propagation techniques (cuttings of threatened species) - yearly increments of PSPs measured - studies of climate change risks into the forestry sector - some studies include traditional knowledge - Some progress of quantitative studies linking invasive species to degradation of forests - Research on value added and new products	- FGR not included in school curriculum - Capacity building – collecting and documenting of knowledge - reluctant in sharing knowledge of medicinal plants because of cultural reasons and lack of intellectual property right - Lack of Public awareness of quarantine, and capacity for control measures - Lack of processing infrastructures and technologies - Gov't support for market access for wood and non-wood forest products	- Establish seed banks - Include FGR in school curriculum - Include youth in awareness and training programs (community level) - Documentation of FGR (research done, knowledge etc)
Policies and Institutions	- National Forest Policy - Forest Codes - NBSAP	- FGR not specifically included in Legislation	- Need a policy specifically for FGR conservation
Regional and International Cooperation	-Technical assistance of FAO, SPC, GEF, GIZ through consultants - MTA	- Funding	- More collaboration efforts with these organizations

V. Regional Inputs to the CGRFA/WG-ABS-1/12/3

Dr, David Cunningham of Australia led the discussion on the Paper CGRFA/WG-ABS-1/12/3 to be presented on the Access and Benefit Sharing Working Group Meeting to be held in Norway. The participants provided the following inputs:

1. **Paper CGRFA/WG-ABS-1/12/3: Distinctive features of GRFA requiring distinctive solutions for ABS**

   a) General agreement that FGR should be included as part of GRFA in the case of widely cultivated commercial species, but not for non-wood forest products such as medicinal uses, particularly where traditional knowledge (TK) is involved.
   b) FGR traded for specific uses can potentially be used for other purposes and this needs to be considered in any ABS discussions and agreements.

2. **Paper CGRFA/WG-ABS-1/12/4: Options to guide and assist countries in developing legislative, administrative and policy measures**

   A. Awareness raising and exchange of information on ABS for GRFA

   a) General support for more awareness raising and interchange of information
   b) Awareness raising and education are needed together.

   B. Capacity building and technical assistance

   a) Strong support, there is a need for more capacity building and technical assistance.

   C. Model contractual clauses for mutually agreed terms

   a) Standard MTA exists for Pacific FGR supply and exchange, pending endorsement by SPC
   b) The standard MTA covers research and training, for other uses bilateral agreements are needed and there is a strong need for model clauses for MAT for other uses of FGR.

D. Stakeholder voluntary codes of conduct, guidelines and best practices and/or standards

a) SPRIG (South Pacific Regional Initiative on FGR) code of conduct to facilitate the exchange of tree germplasm among around five countries in the Pacific
b) In principle support for these measures, but preference for country-based codes, or regional approaches.
c) There is not a level playing field for countries to engage in private sector codes and guidelines.

E. Voluntary guidelines for addressing legislative, administrative and policy measures on ABS for GRFA

a) Supported, would be useful, important to raise the level of awareness and understanding.

F. Specialized international ABS agreements for GRFA

a) Difficult to differentiate between GRFA and other GR in practice
b) In some countries, lack of resources to manage different agreements, lack of capacity to monitor and regulate agreements
c) In general, countries feel it would be better to see how the Nagoya Protocol is working for FGR and other GR, and build their understanding of the ITPGRFA and the Protocol, before considering any new international GR agreements.

3. Consideration of signing or ratifying the Nagoya Protocol on ABS

a) A number of countries are considering signing the protocol or have signed and are considering ratifying.

4. General comments or statements on ABS

a) Few countries are developing their own ABS legislation
b) Prior Informed Consent (PIC) has been difficult to obtain from customary land owners

c) Reluctance to share Traditional Knowledge (TK), particularly associated with medicinal plants, for cultural reasons and because of lack of IPR protection
d) Conflict of interest between TK and western knowledge systems, TK is being lost due to changing lifestyles and westernisation, and depletion of natural resources. TK is not all written and some written documents (e.g. by missionaries) are not accessible or factually correct, wide range of languages
e) Some collection of TK through interviews, documentation and databases, but lack of compensation is an issue and there is a need for capacity building in conducting these types of interviews and knowledge management (trust is essential)
f) Need for appropriate mechanisms to share TK
g) Biosecurity requirements can already delay seed transfers by up to several months in some cases, there are concerns that ABS requirements may also result in delays for research and afforestation work.

VI. Conclusions and Recommendations

That representatives of the following 12 Pacific Island countries and territories; Australia, Cook Islands, Fiji, Federated State of Micronesia, Kiribati, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu (supported by FAO and SPC) met for three days (4-6 September, 2012) in Nadi, Fiji and discussed the State of Forest Genetic Resources in the Pacific.

Participants shared information from their country reports on Forest Genetic Resources (FGR) including priorities and recommendations. Sub-regional groups developed priorities and actions for the Polynesian, Micronesian and Melanesian regarding FGR conservation, management and utilization. The Secretariat of the Pacific Community will consolidate the findings and recommendations into a regional report for PICTs.

In the preparation of their country reports, PICTs have documented their rich natural resource base for FGR, providing for a range of economic, social, cultural and environmental values. However there are serious threats to FGR and countries prioritize capacity building and financial support to improve their ability to conserve and manage these resources.

Representatives recognized the significant loss of the region's forest biodiversity due to activities associated with unsustainable practices for mining, agricultural activities and logging leading to deforestation. Negative impacts of climate change such as rise in sea level, salt water inundation, increased intensity of cyclones, flooding, the occurrence of extreme climatic events and temperature rise is also affecting the state of FGR in PICs.

The workshop delegates unanimously agreed that FGR country reports for the State of the World's Forest Genetic Resources have a unique role to contribute towards better understanding for sustainable management and improvement of the Pacific's Forest Genetic Resources. The workshop further agreed that FGR country reports will contribute to the formulation of policies and strategies that will address the sustainable use of forest resources.

Among other issues, participants also agreed on the following recommendations:

- It is important that the PICs sign Material Transfer Agreement's (MTA's) to facilitate the exchange and supply of trees germplasm within the Region in a timely manner.
- National forest extension programs have to be established in each country in order to optimize extension benefits. This will include production and distribution of extension materials, establishment of demonstration plots, media and awareness /education programs and stakeholder networks.
- Quality measures for the sale of seeds and other reproductive materials by individuals and private companies have to be established.

- SPC to undertake capacity building with its member countries and territories to broaden the knowledge on FGR. This includes priority research and development themes on FGR.

- The PICTs to undertake research activities on species identification and usage classification. This should be formulated in the form of priority list.

- PICTs to facilitate integration of FGR into schools and higher education/training institutions' curriculum for better awareness and decision making.

- PICTs to develop and implement mechanisms for long term access to land for FGR conservation, to ensure continuous and consistent research and development efforts.

- PICTs to develop mechanisms for mitigation and adaptations to climate change.

- PICTs to enforce and secure land use management to protect FGR and prevent encroachment of other sectors in forested areas.

- PICTs to encourage downstream processing and value adding of forest products to maximize the utilization of FGR. SPC to assist member countries secure potential markets for such products.

- PICTs to establish a working relation between National Environment and Conservation Departments, Climate Change Office and Forestry Division for better coordination of climate change activities. There is a growing dissent amongst forestry stakeholders of being sidelined on climate change issues.

In conclusion, the participants have realized the importance of the FGR country report after the three day session and were very keen to have it completed, however, they still need assistance from FAO/SPC in completion of their respective country reports.

This workshop also provided a greater platform for collaboration and information sharing.

Annex 1

Workshop Programme

Date	Time	ACTIVITIES	Responsible
DAY 1 **Tuesday, 04 September**	**08:00 – 09:00**	**Registration**	Organisers
	09:00 – 10:00	**Opening Ceremony:** • Devotion • Welcome Address from SPC • Welcome Address from FAO • Keynote Address by the Permanent Secretary, Ministry of Fisheries and Forests of Fiji • Introduction of participants, Workshop Programme and Housekeeping	MC –Vinesh Prasad SPC Ms Bale Wilikibau SPC Mr. Cenon Padolina, SPC Mr. Oudara Souvannavong, FAO Mr. Inoke Wainiqolo, Permanent Secretary, MFF Mr. Vinesh Prasad, SPC
	10:00 – 10:30	**Group Photo, Coffee/Tea Break**	
	10:30 – 12:30	• Update on SOW FGR Preparation Process including preparation of country reports and thematic studies, workshop objectives and programme, clarifications. **Session 1a. Presentations of Country Reports** • Presentation of Key Findings and Recommendations of Country Reports the Pacific a. Australia (*Dr. David Cunningham*) b. Cook Islands (*Mr. Noo Tokari*) c. Federated States of Micronesia (*Ms. Marlyter Silbanuz*) d. Fiji (*Mr. Binesh Dayal*)	Mr. Oudara Souvannavong, FAO National Focal Points \Country Representatives
	12:30 – 13:30	**Lunch**	
DAY 1 **Tuesday**, **04 September**	**13:30 – 15:00**	**Session 1b. Presentation of Country Reports:** e. Kiribati (*Ms. Tearimawa Natake*) f. Nauru (*Ms.Taralyn Hiram*) g. Palau (*Mr. Larry Mamis*) h. Papua New Guinea (*Prof. Simon Saulei)*	National Focal Points \Country Representatives
	15:00 – 15:30	**Coffee/Tea Break**	
	15:30 – 17:00	**Session 1c. Presentation of Country Reports:** i. Samoa (*Mr. Aukuso Leavasa*) *j.* Solomon Is. (*Mr. Richardson Raomae)* k. Tonga (*Ms. Olivia Funaki*) l. Vanuatu (*Mr. Hannington Tate*) **Session 1d. Plenary Discussions on country reports**	National Focal Points \Country Representatives Mr. Oudara Souvannavong, FAO/Mr. Cenon Padolina, SPC
	17:00	**End of Day 1**	
	19:00 – 21:00	**WELCOME DINNER**	

Date	Time	Subject	Responsible
DAY 2 **Wednesday, 05 September**	**08:30 – 08:45**	Review of Activities on Tuesday 4th September Outline of Programme for the Day	Vinesh Prasad, SPC,
	08:45 – 09:10	**Session 2. Sub-Regional Working Group: Preparation of Regional Recommendations** a. Melanesian Countries b. Polynesian Countries c. Micronesian Countries	Workshop Facilitators (FAO and SPC)
	10:30 – 11:00	**Coffee/Tea Break**	
	10:30 – 12:30	**Session 2. Group Works: ..... continue**	Workshop Facilitators (FAO and SPC)
	12:30 – 13:30	**Lunch Break**	
	13:30 – 15:00	**Session 3. Presentation and Discussion of Group Works on the Preparation of Regional Recommendations**	Workshop Facilitators (FAO and SPC)
	15:00 – 15:30	**Coffee/Tea Break**	
	15:30 – 17:30	**Session 3. Presentation and Discussion of Group Works on the Preparation of Sub-Regional Recommendations**	Workshop Facilitators (FAO and SPC)
	17:30	**End of Day 2**	
DAY 3 **Thursday, 06 September**	**08:30 – 08:45**	Review of Activities on Wednesday, 5th September. Outline of Programme for the Day	*Workshop Facilitator*
	08:45 – 10:15	**Session 4. Regional Working Group: Review and Finalize Regional Recommendations**	*Workshop Facilitators (FAO and SPC)*
	10:15 – 10:30	**Coffee/Tea Break**	
	10:30 – 12:30	**Session 5. Presentation of the Final Regional Recommendations**	*Workshop Facilitators (FAO and SPC)*
	12:30 – 13:30	**Lunch**	
	13:30 – 16:00	**Session 6. Closing Session** • Final discussions • Evaluation of the Workshop • Closing Remarks • Closing Prayer	*Workshop Facilitators (FAO and SPC)*
		Coffee/Tea Break	
	17:00	**End of the Workshop**	

Annex 2

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Annex 3

A. PRIORITY SPECIES FOR THE MELANESIAN COUNTRIES

SPECIES	Conservation		Exploration and collection		Evaluation	Use in Tree Improvement			Countries
	a	b	c	d	e	f	g	h	
Accacia mangium	2	1	2	2	2	2	1	2	SI & PNG
Accacia richii	1	1	2	2	2	2	2	2	FJ
Agathis macrophylla	1	1	2	2	2	2	1	3	All
Alphitonia zizyphoides	1	1	2	2	2	2	1	3	FJ
Carnarium indicum	1	1	2	2	2	2	2	3	PNG, SI & Vanuatu
Dacrycarpus imbricatus	1	1	2	2	2	2	2	2	PNG & FJ
Dacrydium nidulum	1	1	2	2	2	2	2	2	FJ
Decussocarpus vitiensis	1	1	2	2	2	2	2	2	FJ
Degeneria vitiensis	1	1	1	1	1	1	1	1	FJ
Endospermum robbienum	1	1	2	2	2	2	2	2	FJ
Enspermum medullosum	1	1	2	2	2	2	2	1	SI, PNG, FJ
Eucalyptus deglupta	1	1	2	2	2	2	2	3	SI & PNG
Eucalyptus pellita	1	1	2	2	2	2	2	2	PNG
Fagraea gracilipes	1	1	2	2	2	2	2	2	FJ
Flueggea fluxousa	1	1	2	2	2	2	2	2	SI, Vanuatu & Fiji
Gmelina vitiensis	1	1	2	2	2	2	2	2	FJ
Heritiera onithocephala	1	1	2	2	2	2	2	2	FJ
Myristica sp.Kaudamu	1	1	2	2	2	2	2	2	PNG & FJ
Pinus caribbea		1	1	2	2	2	2	3	PNG
Podocarpus neriifolius	1	1	2	2	2	2	2	2	FJ
Pometia pinnata	1	1	2	2	2	2	2	2	PNG & SI
Pterocarpus indicus	1	1	1	1	2	2	2	2	PNG & SI
Santalum spp	1	1	1	1	1	1	1	1	All
Sterculia vitiensis	1	1	2	2	2	2	2	2	FJ
Switenia macrophylla						2	2	2	Vanuatu
Tectona grandis		1	2	2	2	2	2	2	All
Terminalia catapa	1	1	2	2	2	2	2	2	SI & Vanuatu
Vitex coffasus	1	1	2	2	2	2	2	2	PNG & SI

Legend:

Use 1, 2 and 3 to score the required activity for each species as follows:
1: High priority 2: Prompt action recommended 3: important but less urgent than 1 and 2

q) In situ
r) Ex situ
s) Ecological and biological information (natural distribution, taxonomy, genecology, phenology)
t) Collection of genetic material (seeds, herbarium samples, ...) for assessment
u) In situ (population study)
v) Ex situ (provenance and progeny trials)
w) Supply of seed and other reproductive material
x) Selection and breeding

B. PRIORITY SPECIES FOR THE MICRONESIAN COUNTRIES

SPECIES	Conservation		Exploration and collection		Evaluation		Use in TI		Countries
	a	b	c	d	e	f	g	h	
Cocos nuciffera		3		2			1	1	Kiribati
Manilkara	2			3			1	1	Palau
Pandanus tectorius		3		2			1	1	Kiribati
Gmelila		3		2			1	1	Palau
Rhizophora stylosa	1		1		1		1	1	Kiribati
Callophlyllum	3		3		3		1	1	Palau
Artocarpus spp.	1	2	1	1	1		1	1	FSM
Cocos nucifera	1	2	1	1	1		1	1	FSM
Hibiscus tiliaeus	1	2	1	1	1		1	1	FSM
Tornefortia argentea		1	2		1		1	1	Nauru
Calophyllum inophullum	1	2	1	1	1		1	1	Nauru

Legend:

Use 1, 2 and 3 to score the required activity for each species as follows:
1: High priority2: Prompt action recommended3: important but less urgent than 1 and 2

a) In situ
b) Ex situ
c) Ecological and biological information (natural distribution, taxonomy, genecology, phenology)
d) Collection of genetic material (seeds, herbarium samples, ...) for assessment
e) In situ (population study)
f) Ex situ (provenance and progeny trials)
g) Supply of seed and other reproductive material
h) Selection and breeding

C. PRIORITY SPECIES FOR THE POLYNESIAN COUNTRIES

SPECIES	Conservation		Exploration and Collection		Evaluation		Use and Improvement		Countries
	a	b	c	d	e	f	g	h	
Cocos nucifera	1	1	1	1	1	1	1	1	Samoa, Tonga, Cook Is.
Aglaia samoensis	1	1	2	2	3	3	2	2	Samoa, Cooks
Ascarina diffusa	1	1	1	1	2	2	2	2	Samoa, Cooks
Artocarpus altilis	1	1	2	2	2	2	2	2	Tonga
Calophyllum neo-ebuddicum	1	1	1	1	1	1	1	1	Samoa, Cooks
Canarium indicum	2	1	2	2	2	2	2	2	Tonga
Canarium vitiense	1	1	2	2	3	3	3	3	Cooks, Samoa
Citrus spp.	1	3	2	2	2	2	1	1	Tonga
Dyospyros samoensis	2	2	2	2	3	3	1	1	Samoa, Cooks
Dysoxylum huntii	1	1	1	2	2	2	2	2	Samoa, Cooks
Dysoxylum maota	1	2	2	2	2	2	2	2	Cooks, Samoa
Sysoxylum samoense	1	2	2	2	2	2	2	2	Cooks, Samoa
Flueggea flexuosa	1	1	2	2	2	3	2	2	Samoa, Cooks
Garcinia sessilis	1	1	1	1	1	1	1	1	Tonga
Garuga floribunda	1	2	2	2	2	2	2	2	Samoa, Cooks
Inocarpus fagifer	1	2	2	2	2	2	2	2	Samoa, cooks
Intsia bijuga	1	1	1	1	1	1	1	1	Samoa, Cooks
Manilkara hoshinoi	2	2	2	2	2	1	2	2	Cooks, Samoa
Manilkra samoensis	1	1	1	1	1	1	1	1	Samoa
Mango	2	3	1	1	2	2	1	1	Tonga
Myristica fatua	2	2	2	2	2	1	1	1	Cooks, Samoa
Neonauclea forsteri	1	1	2	2	2	1	2	2	Cooks, Samoa
Palaquium stehlinii	1	2	2	2	1	3	3	2	Samoa, Cooks
Planchonella garberi	1	2	2	3	2	3	3	3	Cooks, Samoa
Planchonella samoensis	1	2	2	2	2	2	2	3	Cooks, Samoa
Pometia pinnata	2	2	2	2	2	2	1	1	Cooks, Samoa
Santalum spp.	1	1	1	1	1	1	1	1	Tonga, Samoa, Cooks
Sterculia fanaiho	1	2	1	1	1	2	2	2	Samoa, Cooks
Syzygium inophylloides	1	3	3	3	2	2	3	3	Samoa, Cook Is.
Syzygium patentinerve	2	2	2	2	1	1	1	3	Samoa, Cook Is.
Syzygium samarangense	2	2	1	1	1	1	3	3	Samoa, Cooks
Terminalia catappa	1	1	1	2	2	2	2	2	Samoa , Cooks
Terminalia richii	1	1	1	1	1	1	1	1	Samoa, Cook Is.
Pometia pinnata	1	1	1	2	2	3	3	3	Tonga
Syzygium malaccense	1	1	1	2	2	2	2	2	Tonga

Priority Exotic species

SPECIES	Conservation		Exploration and Collection		Evaluation		Use and Improvement		Countries
	a	b	c	d	e	f	g	h	
Breadfruit spp.	1	1	1	1	1	1	1	1	Tonga
Casuarina equisetiofolia	1	1	1	1	1	1	1	1	Samoa, Cooks, Tonga
Cedrella odorata	2	2	2	3	3	2	2	3	Samoa, Cooks
Pinus honduras	2	2	2	2	3	3	1	1	Tonga
Eucalyptus urophylla	1	1	2	2	2	3	1	1	Samoa, Cook Is.
Eucalyptus pellita	2	2	2	2	3	3	1	1	Samoa, Cook Is.
Eucalyptus tereticornis	2	2	3	3	3	3	1	1	Samoa, Cook Is.
Swietenia macrophylla	1	1	1	1	1	1	1	1	Samoa, Cook Is.
Toona ciliata var. australis	2	2	3	3	3	3	1	1	Samoa, Cook Is.
Tectona grandis	2	2	1	1	3	3	1	1	Samoa, Cook Is.
Terminalia calamansanai	2	2	3	3	3	1	1	1	Samoa, Cook Is.
Terminalia superba	3	3	2	2	2	1	1	1	Samoa, Cook Is.
Santalum species	1	3	2	2	3	2	1	1	Samoa, Cooks
Vi-apple	1	1	1	1	1	1	1	1	Tonga