

# *Summary Report*

*Preface*

*by Raymond Mbitikon, Executive Secretary of COMIFAC*

## **Workshop on “Research on forest ecosystems” in the COMIFAC zone 27-28 February 2012 Sawa Hotel – Douala, Cameroon**



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## **Preface**

**by Raymond Mbitikon, Executive Secretary of COMIFAC**

It is recognized worldwide that Central African forests play an important economic, social, cultural and ecological role. They contribute to the economic development of countries, to improving the lives of people and preserving the global environment. For these forests to continue to provide the local population, countries and mankind, with the desired goods and services, research has to be at the core of any political action.

In effect, research on the dynamics of forest ecosystems and their various environmental services should help respond to concerns related to the sustainable management of forest ecosystems and the fight against poverty.

However, it is clear that in recent decades, forestry research has suffered nationally because of the decline in national funding, which has paralyzed the functioning of national forestry research centres. To this main crisis factor should be added the weak capacity of national scientific communities to convince authorities and partners to include their priorities in national agendas in order to generate adequate funding.

It was on the contrary observed that forestry research initiatives in the sub-region are carried on mainly by international research institutions.

As part of ongoing discussions on the new global climate code for example, it was noted that deforestation contributes to about a quarter of the overall volume of greenhouse gas emissions. Deciphering this rather innocuous revelation for informed actors of Central Africa, showed the negative impact of the lack of adequate scientific data on Central African forest ecosystems.

It is in this context that in co-organizing a workshop on "Research on forest ecosystems", COMIFAC, CIFOR, CIRAD and IRD with support from the CBFP wanted to revive discussions on the place and importance of forestry research in Central Africa.

The quality of the participants at this workshop, its participatory approach and lack of taboo subjects justify the feeling of real satisfaction experienced while discovering the outputs of this workshop. Furthermore, relevant recommendations on synergies and partnerships, priority research topics and funding provide the various stakeholders with strategic avenues for intervention, which undoubtedly, ultimately contribute toward improved management of Central Africa forest ecosystems; if everyone pitches in with a spirit of solidarity and genuine collaboration.

The Executive Secretariat of COMIFAC sees through the outputs of this workshop, a substantial contribution toward making operational goal No. 8 (Research and Development) of the Convergence Plan. The latter is the strategic framework for implementation of the Declaration that sanctioned the Central Africa Heads of States Summit on the conservation and sustainable management of forest ecosystems in the sub-region, held in Yaoundé in March 1999.

## Introduction

Although many public and private organizations carry out research on forest ecosystems in Central Africa, there is currently no general diagnosis of these initiatives and identification of their actors. The one-and-a-half-day workshop that took place in Douala on 27 and 28 February 2012 aimed primarily at identifying the main guidelines for forestry research for the next decade, in accordance with goal 8 of the COMIFAC Convergence Plan dedicated to Research and Development.

Four main outputs were expected of the workshop:

- ↳ Identification of partnerships for the implementation of Goal 8 of the Convergence Plan;
- ↳ Listing priorities and common research topics;
- ↳ Identification of sustainable funding mechanisms for research;
- ↳ Proposal of a framework that would foster synergies between research institutions.

To this end, the workshop was organized in two main sessions. The first session, held in plenary, was used to highlight the situation of national research on forest ecosystems in Central Africa. This sub-regional situation was complemented by presentations of work carried out today by three international organizations, CIFOR, CIRAD and IRD, across the Congo Basin. The second session of this workshop consisted of three parallel workshops on partnerships, topics and funding for forestry research in Central Africa.

More than a hundred participants attended the workshop. They came from all COMIFAC countries and other tropical forest basins. Various stakeholder groups were also represented: research institutions, universities, ministries and administrations, civil society, donors and private operators.

This report summarizes the outputs of presentations and discussions at this one-and-the-half-day workshop. It will be completed in late 2012 by an inventory of forestry research in the Congo Basin, currently conducted with funding from PACEBCo.

Rather than an exhaustive review of research conducted in various countries of the sub-region, the workshop sought to identify the main forestry research guidelines for the next decade. On this basis, a common strategy for research organizations (national and international) and a roadmap were sketched to eventually contribute to improving the management of forest ecosystems in Central Africa. This strategy and work plan will be integrated into the multi-annual planning of COMIFAC. The workshop also aimed to strengthen partnerships between national research institutes of Central African countries and international research organizations active in the Congo Basin. Brainstorming on networking Central African research institutes was also done.

## Status of research on forest ecosystems in the COMIFAC zone

This status appraisal summary is based on responses to a questionnaire sent to institutions invited to the 27-28 February 2012 workshop on forestry research in Central Africa, on a literature review and on a small number of interviews with officials of research organizations.

The first observation is that there are no national guidelines for forestry research in any COMIFAC country. Only Cameroon and Chad have developed five-year plans, but they are mainly inspired by the forest - environment sector strategy of the country.

### Institutions, human resources and networks

In five of the COMIFAC countries, the mandate of forestry research is entrusted to a major institute like INERA (DRC), IRAD (Cameroon), ICRA (CAR), ITRAD (Chad), or RAB (Rwanda) in which forestry research is a programme or a component of a programme. The priority of these institutes is food security. Universities also have a high potential for research, but it is seldom enhanced as these institutions generally give priority to teaching.

The following table summarily presents national institutions charged with carrying out forestry research in each COMIFAC country.

COUNTRY	NATIONAL FORESTRY RESEARCH INSTITUTES
<p><b>Burundi</b></p> <p>Since 1987, the mandate of the forestry research is entrusted to the Forestry Research Unit of the Ministry in charge of forestry</p>	<ul style="list-style-type: none"> <li>• Institut des Sciences Agronomiques du Burundi (ISABU): Programme Gestion Conservatoire des Eaux et des Sols, Composante Sylviculture/Agroforesterie</li> <li>• University of Burundi: Faculty of Agronomy and Higher Institute of Agriculture</li> <li>• Forestry Research Unit of the Ministry in charge of Forestry</li> </ul>
<p><b>Cameroon</b></p> <p>Mandate to IRAD, in coordination with other national research centres concerned</p>	<p>Institute of Agricultural Research for Development (IRAD): Coordination Forestry, Soils and the Environment;</p> <p>Centre for Research on Medicinal Plants and Traditional Medicine of IMPM</p> <p>National Cartography Institute (NCI)</p> <p>8 State universities:</p> <ol style="list-style-type: none"> <li>1. University of Yaoundé I;</li> <li>2. University of Yaoundé II ;</li> <li>3. University of Dschang ;</li> <li>4. University of Douala ;</li> <li>5. University of Ngaoundere ;</li> <li>6. University of Buea ;</li> <li>7. University of Maroua ;</li> <li>8. University of Bamenda</li> </ol> <ul style="list-style-type: none"> <li>• The DEPFOR of FASA of the University of Dschang is the oldest Cameroonian institution that trains forestry engineers.</li> <li>• Department of Biology and Plant Organisms (DBOV) of the Faculty of Science, Department of Physics</li> <li>• Department of Plant Biology and Physiology (DBPV) of the Faculty of Science.</li> </ul>

COUNTRY	NATIONAL FORESTRY RESEARCH INSTITUTES
<p><b><u>Republic of Congo</u></b></p> <p>Mandate to DGRST, but there are many other research centres, with no institutional links</p>	<p><b>Centres and agencies under the supervision of DGRST:</b></p> <ul style="list-style-type: none"> <li>• Centre de Recherche Forestière du Littoral (CRFL),</li> <li>• Centre de Recherche Forestière de Ouessou (CRFO),</li> <li>• Groupe d'Etude et de Recherche sur la Diversité Biologique (GERDIB), dont dépend la Station Biologique Forestière de Dimonika (STARDI),</li> <li>• Centre d'Étude sur les Ressources Végétales (CERVE)</li> <li>• Centre de Recherches Géographiques et de Production Cartographique (CERGEC),</li> <li>• Centre de Recherche sur la Conservation et la Restauration des Terres (CRCRT),</li> <li>• Centre Régional de Recherche Agronomique et Forestière d'Oyo (CRAFO)</li> <li>• Centre de Recherche sur la Productivité des Plantations Industrielles (CRDPI)</li> <li>• Agence Nationale de Valorisation des Résultats de la Recherche (ANVAR) ;</li> <li>• Centre National de Documentation et d'Information Scientifique et Technique (CNDIST)</li> </ul> <p><b>Marien Ngouabi University.</b></p> <ul style="list-style-type: none"> <li>• Rural Development Institute (IDR),</li> <li>• Faculty of Science and Technology (FST),</li> <li>• Faculty of Letters and Social Sciences</li> </ul> <p><b>Centres and agencies under other supervisory authorities:</b></p> <ul style="list-style-type: none"> <li>• Le Service National de Reboisement (SNR)</li> <li>• Centre National des Etudes du Sol (CNES)</li> <li>• L'Institut Congolais d'Appui au Développement (AGRICONGO)</li> </ul>
<p><b><u>Gabon</u></b></p> <p>Mandate entrusted to CENAREST</p>	<p><b>Institutes under the supervision of CENAREST</b></p> <ul style="list-style-type: none"> <li>• l'Institut de Pharmacopée et de Médecine Traditionnelle (IPHAMETRA)</li> <li>• l'Institut de Recherches Agronomiques et forestières (IRAF)</li> <li>• l'Institut de recherche sur l'écologie tropicale (IRET)</li> <li>• l'Institut de recherches en sciences humaines et sociales (IRESH)</li> <li>• l'Institut de recherches technologiques (IRT)</li> </ul> <p><b>3 State universities:</b></p> <ul style="list-style-type: none"> <li>• Omar Bongo University (UOB) : Letters, Human Sciences and Social Sciences;</li> <li>• University of Health Sciences (USS) ;</li> <li>• University of Science and Technology of Masuku (USTM, Franceville)</li> </ul> <p><b>Institutes under sundry supervision:</b></p> <ul style="list-style-type: none"> <li>• l'Institut National de Cartographie</li> <li>• le Centre International de Recherches Médicales de Franceville (CIRMF), that focuses mostly in biomedical research.</li> <li>• L'Ecole nationale des Eaux et Forêts (ENEF) under the supervision of the Ministry of Forestry.</li> </ul>
<p><b><u>Equatorial Guinea</u></b></p> <p>Mandate entrusted to INDEFOR, but not very operational</p>	<ul style="list-style-type: none"> <li>• Centro de Investigacion Científica y Tecnológica (CICTE) ;</li> <li>• Universidad Nacional de Guinea Ecuatorial (UNGE)</li> <li>• l'Institut des Forêts (INDEFOR)</li> </ul>
<p><b><u>Central African Republic</u></b></p> <p>Mandate entrusted to ICRA, for forestry and agricultural research</p>	<ul style="list-style-type: none"> <li>• L'Institut Centrafricain de Recherche Agricole (ICRA)</li> <li>• University of Bangui, through the Institut Supérieur du Développement Rural (ISDR)</li> <li>• Le Centre de Recherche Pharmaceutique et de la Médecine Traditionnelle (CERPHAMETRA)</li> </ul>

COUNTRY	NATIONAL FORESTRY RESEARCH INSTITUTES
<p><b>Democratic Republic of Congo</b></p> <p>Mandate entrusted to INERA</p> <p>No real forestry research programme</p> <p>Development partners of the DRC currently provide strong institutional support to all national institutes to revive them</p>	<p><b>Under the supervision of the Ministry of Scientific and Technological Research:</b></p> <p>L'institut National pour l'Etude et la Recherche Agronomique (INERA) made up of several institutes involved in issues related to forestry research, such as the Centre de Recherche en Ecologie et Foresterie (CREF) in Mabali or the Centre de Recherches en Science naturelles of Lwiro</p> <p><b>Under the supervision of the Ministry of Higher Education:</b></p> <ul style="list-style-type: none"> <li>• Institut supérieur d'études agronomiques (ISEA) de Bengamissa</li> <li>• Ecole régionale post-universitaire d'aménagement et de gestion intégrée des forêts et de territoires forestiers tropicaux (ERAIFT)</li> <li>• University of Kisangani, Faculty of Science</li> <li>• University of Kinshasa, Faculty of Science, Department of Environmental Management</li> </ul> <p><b>Under the supervision of Ministry of the Environment, Nature Conservation and Tourism:</b></p> <ul style="list-style-type: none"> <li>• The Institut congolais pour la conservation de la nature (ICCN) has mainly to foster scientific research in reserves. It has under its supervision the Centre de Formation et de Recherche en Conservation Forestière (CEFRECOF) and the Lulimbi Station.</li> </ul>
<p><b>Rwanda</b></p> <p>Mandate entrusted to RAB</p>	<ul style="list-style-type: none"> <li>• "Rwanda Agricultural Board" (RAB) that has a big research department within which forestry research activities are also carried out</li> <li>• Universities and higher institutes such as the Higher Institute of Agriculture of Busogo or the National University of Rwanda</li> <li>• The Office rwandais des ressources naturelles.</li> </ul>
<p><b>Sao Tome and Principe</b></p> <p>At starting stage</p>	<ul style="list-style-type: none"> <li>• l'Institut Supérieur Polytechnique,</li> <li>• le Centre d'Investigation Agronomique et Technologique (CIAT),</li> <li>• IUCAI</li> <li>• le Département des Etudes et biodiversité de la Direction des Forêts</li> </ul>
<p><b>Chad</b></p> <p>Mandate entrusted to ITRAD</p> <p>Forestry research is a programme in a set of 4 programmes</p>	<ul style="list-style-type: none"> <li>• L'Institut Tchadien de Recherche Agronomique pour le Développement (ITRAD)</li> <li>• Sundry institutions under the supervision of the Ministry of Higher Education, including the University of Djamena (Department of Geography and Biology and the Centre National d'Appui à la Recherche (CNAR)</li> <li>• Sundry Technology Institutes:</li> <li>• l'Institut de Recherches en Sciences Humaines (INSH),</li> <li>• l'Institut Universitaire des Sciences et Technologies d'Abéché (IUSTA),</li> <li>• l'Institut Universitaire des Sciences Agronomiques et de l'Environnement de Sarh (IUSAE),</li> <li>• l'Institut Supérieur des Sciences de l'Education (ISSED)</li> </ul>

In general, considering the pool of teacher-researchers and PhD students, there is a huge human potential in forestry research, but it is not sufficiently harnessed because of the low structural organization of research and serious shortage of experienced researchers who can mentor inexperienced researchers. The number of confirmed researchers is insufficient, especially in relation to current issues on forestry research. The professional status of the researcher does not remedy this shortcoming, because of low wage or early retirement, as in Cameroon.

This shortfall about confirmed researchers is partially compensated for by numerous partnerships, especially with international research and training organisations. There is also a significant number of research networks in the sub-region, such as West and Central African Council for Research and Development (CORAF), the Network of Forestry and Environmental Training Institutions (RIFFEAC), the Regional Center for Applied Research in Agricultural Systems Development of Central

Africa (PRASAC), the African-Caribbean-Pacific Forest Research Network (ACP-FORENET), the l'Association pour l'Etude Taxonomique de la Flore d'Afrique Tropicale (AETFAT), although some of them have persistent funding problems. There is no sub-regional network that brings together all forest research institutes in Central Africa at institutional level.

Conversely, partnerships of forestry research institutes with the private sector, with ministries in charge of forestry or the environment, and with national training institutes are still poorly developed.

### Forestry research topics

Even without a national research strategy on forestry, both at national and sub-regional levels, there is a convergence of research topics in the same ecological zones. However, the relative homogeneity of responses to our questionnaire does not mean that these topics are mainstreamed in consistent research programmes.

Seven forestry research subjects emerged from the consultations with national organizations:

1. Development of timber resources in savannah and moist forest areas;
2. Genetic improvement of forest or related species;
3. Agro-forestry
4. *Ex situ* and *in situ* biodiversity conservation;
5. Sustainable management of non-timber forest products, including medicinal plants;
6. Vulnerability and adaptation to climate change;
7. Governance and illegality.

No organisation has indicated any research topic specifically related to carbon sequestration or on the REDD process. Furthermore, very few topics address socio-economic aspects of forest management.

### Funding and logistics of forest research

The lack of a national research funding mechanism is the main constraint to the development of forestry research in COMIFAC countries. Today, this research depends heavily on external funding which is generally short lasting, whereas many forestry surveys require long-term investment. This is for example the case with monitoring experimentation plots or the functioning of research laboratories.

## Actions of international partners

### CIFOR (Centre for International Forestry Research)

CIFOR is part of CGIAR (Consultancy Group on International Agricultural Research) which brings together 15 international agricultural research organisations to support development. CGIAR recently undertook a strategic reform to encourage the development of joint research programmes. Thus, CIFOR, the International Centre for Agro-forestry (ICRAF), Bioversity International (BI) and International Centre for Tropical Agriculture (CIAT) have developed a joint programme called "*Forests, Trees and Agro-forestry*", or CRP6, which CIFOR is heading (<http://www.cifor.org/crp6>). This programme is organized around five components that frame up CIFOR research in Central Africa.

#### 1. Small-holders production systems and markets

In Central Africa, CIFOR is involved in a project on "Sustainable woodfuel management in the Democratic Republic of Congo", better known under the term "Makala" project. The overall objective of the Makala project is to promote sustainable woodfuel management in the DRC and the Republic of Congo. It is funded by the European Union and executed by several partners including CIRAD

(leader), the Hans Seidel Foundation, the University of Kisangani, the University of Gembloux, and the Ministry of the Environment, Conservation of Nature and Tourism of the DRC.

## **2. Management and conservation of forests and tree resources**

The main projects that illustrate CIFOR activities in this component are:

- ✓ The “Beyond Timber” project, which has as overall objective to generate innovative approaches to forest management that reconcile conflicting demands of forest resources. The project’s activities are carried out in Gabon, Cameroon and the DRC with funding from the Congo Basin Forest Fund. CIFOR is executing the project in partnership with Biodiversity International (leader), IRAD (Cameroon), IRET (Gabon) and the University of Kisangani (DRC).
- ✓ The PRO-Formal project, which aims to promote legality, improve living conditions and forest management in connection with the domestic timber sector in five tropical forest countries in the negotiation or implementation of the Voluntary Partnership Agreement of the FLEGT process. The main partners of CIFOR for its implementation in Central Africa are Brainforest and IRET for Gabon and the University of Kisangani, Ocean (Organisation Concertée des Ecologistes et des Amis de la Nature) and the CREF Network for the DRC (<http://www.cifor.org/pro-formal>).

## **3. Environmental services and landscape management**

Component 3 of the CRP6 develops several project ideas that may be funded and executed in the near future.

## **4. Mitigation and adaptation to climate change**

Three projects are currently executed in Central Africa within the framework of this component:

- ✓ The COBAM Project (Synergies between adaptation and mitigation to climate change) analyses the vulnerability and adaptation of ecosystems and societies to climate change, and ways to mitigate its impacts. This project is funded by the African Development Bank through the Support Programme for the Conservation of the Congo Basin Ecosystems managed by ECCAS. CIFOR is implementing COBAM in partnership with the Stockholm Environment Institute, the University of East Anglia, CIRAD, IRD, and several national research institutes and NGOs from participating countries. Activities related to this project take place in Cameroon, Republic of Congo, DRC, CAR, Gabon and Equatorial Guinea (<http://www.cifor.org/cobam>).
- ✓ The FORAFAMA project (Support to sustainable management of the Congo Basin and Brazilian Amazon Basin forests), which is exploring ways to preserve biodiversity in these forest basins and limiting carbon dioxide emissions by fighting against deforestation and forest degradation in forest concessions. It is funded by the French Global Environment Facility through the French Development Agency. This project covers six countries in the Congo Basin forest and Brazil. It is executed in partnership with ONFI, CIRAD, FRM, TERE and IRD.
- ✓ The REDD Global Comparison Study (REDD-GCS) which is developing effective, efficient and fair approaches to reduce gas emissions from forests, while generating co-benefits such as poverty reduction and biodiversity conservation.

## **5. Impacts of trade and investments on forests and the population**

The China-Africa project aims to improve understanding of social, economic and environmental impacts of Chinese investment in products or sectors that affect forests and livelihoods in Africa. It is a project funded by Germany, whose activities are carried out in Cameroon, DRC, and Gabon in Central Africa.

### **Cross-cutting themes**



In addition to themes included in the components of CRP6, CIFOR has identified two cross-cutting themes, namely *gender* and *sentinel landscapes*. On the one hand, sensitive research on gender aspects should help generate understanding of institutional, cultural and behavioural backgrounds that discourage iniquity in various areas of activity. On the other hand, the sentinel landscapes are sites where long-term research will be conducted.

### **Capacity building and networking**

CIFOR considers capacity building as a crucial ingredient for improving the overall impact of the CRP6 research strategy. This commitment is illustrated by three CIFOR projects in Central Africa that include:

- The FORENET project, which builds capacity in ACP countries to undertake collaboratively, applied research related to the forest.
- The REFORCO project, which aims to improve the capacity to manage forest ecosystems through forestry training and research at the University of Kisangani.
- The CEOFAC project (Consolidation and Extension of the Central African Forests Observatory), that contributes to the preparation and functioning of the Central African Forest Observatory. Placed under the administrative supervision of COMIFAC, this project that is funded mainly by the EU is being executed by the Joint Research Centre of the EU, CIRAD, FRM, UCL and national governments of the countries concerned.

### **CIFOR in Central Africa**

CIFOR's Central Africa Regional Office is based in Yaounde. It is made up of a dozen national and international researchers and some fifteen administrative staff, temporarily supported from time to time by about ten consultants and interns.

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### **CIRAD (Centre de coopération Internationale en Recherche Agronomique pour le Développement) (Centre for International Cooperation in Agronomic Research for Development)**

CIRAD, and before it, the Centre Technique Forestier Tropical, has for over 60 years been carrying out research on forest ecosystems in Central Africa. This continuity, as well as development of research topics, is illustrated quarterly through the Bois et Forêts des Tropiques journal ([www.cirad.bft.fr](http://www.cirad.bft.fr)) since 1947. Today, an important part of forestry research in CIRAD is conducted by the *Research Unit for Goods and Services of Forest Ecosystems* (B&SEF), which has about forty researchers, of which a large proportion is working on Central Africa forests. This team is structured around three research avenues:

### **1. Resilience of tropical forests**

Forests have supported major climate modifications and thus proved their resilience. But today, these changes take place in a new context of increased resource use. This leads to huge destruction and degradation that fragment forests and reduce their resilience to shocks. From this situation stems the assumption of this team: interaction of climate change and human pressure creates new "risks" to forest stands.

Two projects are currently carried out in Central Africa to address these topics:

- ✓ The CoForChange project, which is funded by the EU, mainly in the Tri-National Sangha. This project aims to (1) determine the relative influence of climate change and past human disturbances on the current features of dense semi-deciduous forests, (2) predict probable changes of these features depending on various global change scenarios (<http://ur-bsef.cirad.fr/principaux-projets/coforchange>)
- ✓ The DynAffFor project, funded by the French Fund for Global Environment, assesses and analyzes the impact of logging on the structure and dynamics of forests.

### **2. Forest and societies**

This research team studies the rules, practices, uses, knowledge and representations of forest-related societies, but also the dynamics between cooperation and competition between actors. Research issues concern analysing the evolution of the vulnerability of social groups if the ecosystems they use were to become less resilient and, conversely, on the evolution of forest ecosystems if certain factors cause social groups to be more vulnerable to global and/or local changes.

This line of research has no sizeable funding in Central Africa but a project is currently being developed on anthropogenic pressures on the permanent forest estate.

### **3. Public policies**

The objective of this line of research is to analyse processes for the formulation, adoption, implementation and "ownership" of government action on forests. It looks into the role of actors (government, private sector, non-governmental organisations) and into governance that underpin these processes. Research is complete in that it aims not only to produce knowledge on government action, but also to evaluate policies, to advise policy-makers and local actors and to provide more effective tools for government action.

In this perspective, three research projects are being executed in Central Africa:

- ✓ Study for Congo Basin Forest Ecosystems potential by 2040, which provides elements to support decision-making to understand and anticipate possible changes in Congo Basin forest ecosystems in the coming decades (<http://ur-bsef.cirad.fr/principaux-projets/analyse-prospective-sur-les-ecosystemes-forestiers-du-bassin-du-congo-a-l-horizon-2040>)
- ✓ The Makala project, funded by the EU, which intends to avoid the risk of unsustainable management of both natural and planted forest resources in suburbs while improving supply chains in the DRC and the Republic of Congo (<http://ur-bsef.cirad.fr/principaux-projets/makala>)
- ✓ The Forafama project which analyzes the rules for implementing REDD+ in forest concessions, in collaboration with CIFOR

Furthermore, researchers of this line of research are currently investing on two important topics in Central Africa: (1) development and setting up of a Land Observatory in Cameroon; (2) analysis of the definition of the legality of timber, in connection with forest certification.

## Research projects to support sustainable forest management

CIRAD is also directly involved in 4 support projects to sustainable forest management:

- ✓ The CEOFAC project that supports COMIFAC in the setting up of a Central African Forest Observatory (<http://www.observatoire-comifac.net/index.php>)
- ✓ The Support Project to Small Logging Permits in Gabon (<http://ur-bsef.cirad.fr/principaux-projets/petits-permis-forestiers>). This project, executed in collaboration with the Ministry of Water Resources and Forestry, FRM, TERE, is funded by the Gabonese Government and AFD.
- ✓ The Support Project to the execution of Forest Management Plans in CAR, funded by the AFD and the Central African Government (<http://ur-bsef.cirad.fr/principaux-projets/projet-d-appui-a-la-realisation-de-plans-d-amenagement-forestier-parpaf-2eme-phase>)
- ✓ The Support Project to Sustainable Management of Forests in Congo (PAGEF), which supports the management of forest concessions in the south of Congo. This project is executed in collaboration with FRM, TERE, Nature+, under funding from the Congolese government and the AFD.

## Two related research organisations

Besides the work of researchers of UR B&SEF, CIRAD has two organisations that are also interested in tree management in Central Africa:

- ✓ The Centre de recherche sur la durabilité et la productivité des plantations industrielles (*Centre for Research on sustainability and productivity of industrial plantations*) (CRDPI) that studies the conditions for exploiting sustainable eucalyptus plantations. This research centre established in partnership with the National Reforestation Service of Congo. It is based in Pointe-Noire and hosts about ten scientists.
- ✓ The Workgroup on "Agro-forestry" Partnership in Cameroon, which intends to be a research platform for the development of sustainable and high yielding agro-forestry systems in Central Africa. This initiative aims to better coordinate research on agro-forestry systems developed today in Cameroon. Many research organizations (IRAD, ICRAF, CIFOR, IITA, IRD, universities) were involved in the design of this initiative.

## CIRAD in Central Africa – Forestry research

Twenty CIRAD researchers work mainly on Central African forests, of which 6 are based in the sub-region (Kinshasa, Libreville, Yaounde), in addition to CRDPI and PCP *Agroforestry*. Besides these multiple partnerships with research institutions, governments and private operators, CIRAD also provides funding for training especially for interns and doctoral students

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## IRD (Research Institute for Development)

IRD is a French government science and technology institute whose mission is to develop scientific projects with focus on the relationship between man and his environment in the tropics. It is placed under the joint supervision of the French Ministries in charge of research and foreign affairs. Placed at

the service of the development of countries of the South, the Institute undertakes research, training and innovation missions. Through the Agency for inter-institution research for development, IRD's mission is to mobilize universities and major French research organizations.

IRD, present in Central Africa since 1949, is summarized in figures: 24 permanent IRD researchers (17 in Cameroon and 7 in Gabon); a hundred researchers involved in the area; 15 local staff, 500 missions per year, over 40 students per year pursuing a master or doctorate degree, some thirty scientific events per year.

## Partners

IRD is conducting research activities in partnership with:

### ↳ **National institutions (partial list)**

⇒ In Cameroon: Ministry of Scientific Research and Innovation, Institute of Medical Research and Study on Medicinal Plants (IMPM), Institute of Geological and Mining Research - Centre for Water Research (IRGM-CRH); Agricultural Research Institute for Development (IRAD); National Cartography Institute (INC), Ministry of Public Health, Centre Pasteur of Cameroon (CPC) National Agency for AIDS Research (ANRS Cameroon).

The IRD also maintains strong relations with Cameroonian universities, their faculties and schools, including the Universities of Dschang, Douala, Ngaoundere, and ENS Yaounde.

⇒ In Central African Republic: University of Bangui

⇒ In Congo: Délégation générale à la recherche scientifique et technologique (DGRST) (*General Delegation for scientific and technological research*); Ministry of Health.

⇒ In Gabon: Ministry of National Education, Higher Education, Scientific Research and Innovation and Culture; Centre national de la recherche scientifique (CENAREST) (*National Centre for Scientific Research*); Agence Gabonaise d'études et d'observations spatiales : Terre, Climat, Homme (AGEOS-TECH); National Agency for National Park (ANPN); University of Masuku; Centre international de recherches médicales de Franceville (CIRMF).

⇒ In Equatorial Guinea: National University of Equatorial Guinea (UNGE); Science and Technology Research Council (CICTE).

⇒ In the Democratic Republic of Congo: University of Kinshasa.

↳ **International organisations:** Economic Community of Central African States (ECCAS) to build a research platform entitled " Consortium for research, innovation and training for development in Central Africa", African Intellectual Property Organization (OAPI), Coordination Organization for the Fight against Endemic Diseases in Central Africa (OCEAC); CIFOR; COMIFAC; Congo Basin Forest Partnership (CBFP)

↳ **French partners:** CIRAD; National Scientific Research Centre (CNRS); National Museum of Natural History (MNHN); National Research Agency (ANR); French Development Agency (AFD); French embassies and institutes.

## Scientific priorities

↳ Health: malaria; diseases caused by worm parasites; emerging Arboviruses (dengue, yellow fever, chikungunya and Rift valley fever.); sleeping sickness; AIDS and related diseases; Ebola virus hemorrhagic fever, feeding, health systems and actors.

↳ Climate change and natural hazards.

↳ Hydrology and transfer of material by waterways.

- ↳ Ecosystems and natural resources: paleo-environments, origins and maintenance of regional biodiversity, conservation biology, adaptation/mitigation to impact.  
The priorities outline, as formulated with partners, falls structurally in the FTH-AC - Regional Pilot Programme

### **Regional pilot programme (PPR):**

- ↳ Global changes, Biodiversity and Health in the moist tropical forests of Central Africa (PPR-FTH-AC)

The PPR FTH-AC aims to better mainstream all research topics of the IRD in Central Africa. This programme was tailored for 3 years with nearly 300 researchers from research institutions and institutions of higher learning in both the North and the South, sub-regional cooperation organizations (ECCAS, COMIFAC, CBFP), international centres (CIRAD, CIFOR) or operational structures (WWF, WWCS, IUCN, technical ministries).

Its main objective is to understand and anticipate environmental responses to climate man-made changes and in the forest zone of Central Africa:

- ↳ What forms of climate change and socio-economic change?
- ↳ What consequences on health, biodiversity and its management modalities, on vegetation cover and carbon stocks as well as the livelihoods of the population?

Several outputs are expected:

- ↳ Production of tools to assist in the management of ecosystems and ecosystem services;
- ↳ Skills development in Central Africa (training of researchers, actors and decision-makers);
- ↳ Creation of a network of observatories for environmental change in Central Africa;
- ↳ Innovation and technology transfer;
- ↳ Strengthening scientific production in the region on the thematic priorities of the programme.

This Partnership is made up of a community of over 300 scientists who have expressed interest in this programme, 45% in Africa, 30% at IRD, 25% in countries of the North (excluding IRD).

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## **Summary of discussions and recommendations**

Discussions at the workshop on research on forest ecosystems focused on three themes: partnerships, thematic priorities and funding of research in Central Africa. The synthesis of these three discussions consists of a highlights of discussions held during the workshop followed by the formulation of some recommendations.

### **What synergies and what partnerships for forestry research in Central Africa?**

#### **Highlights of the discussions**

- ↳ The sector of research on forest ecosystems is still highly fragmented between disciplines, between institutions and somewhat unconnected to social demands from ministries, private operators and society in general. These actors are not involved in the choice of research topics.
- ↳ Research findings are rarely communicated beyond the scientific community and are thus under enhanced.
- ↳ Because of low wages and poor working conditions many researchers are partnering individually with foreign organizations, without involving their affiliate institutional, given that consultation has pride of place before the establishment of formal institutional partnerships.

### **Recommendations**

- ↳ With the lack of national guidelines on forestry research, COMIFAC should develop guidelines for forestry research to facilitate the implementation of the convergence plan. These guidelines will serve as a framework for developing national guidelines on forestry research and the development of partnerships. In addition, a mega-research programme on forest ecosystems could be developed, in connection with requests from users of research products.
- ↳ Establishment and monitoring of forest plots may be entrusted to forestry research through tripartite agreements: Concession holder-Research Institute-Ministry in charge of Forestry.
- ↳ Strengthening the presence of researchers in national or sub-regional discussion platforms on forests, such as the meeting of CBFP Partners that takes place twice a year.
- ↳ Bringing together existing research networks instead of trying to create new ones.
- ↳ Support the development of communication strategies by research organizations and promote the dissemination of findings adapted to the needs of stakeholders.
- ↳ Encourage States to put in place incentives for researchers.

### **What priority research themes for the next 10 years?**

#### **Highlights of the discussions**

- ↳ There is a slight connection between research on the forest as life support, mainly discussed by life and earth sciences, and those on the forest as an economic resource made by the social sciences.
- ↳ The challenge is to continue research on traditional themes, for which skills are available, while opening up to emerging problems, for which it is easier to find funding.
- ↳ Research on forest ecosystems rarely combines spatial and/or temporal scales.
- ↳ There is no permanent agreement to access information available in international databases.

#### **Recommendations**

- ↳ Perpetuate and strengthen research on knowledge and management of ecosystems, on biodiversity conservation and enhancement.
- ↳ Develop skills on the following topics:
  - Adaptation of forests and forest communities to global changes;
  - Forest governance: certification and legality, informal sector, change of international actors;
  - Forest and food security;
  - REDD.
- ↳ Document the benefits from forests and explain their mainstreaming into sectoral policies

### **How to ensure sustainable funding for research?**

#### **Highlights of the discussions**

- ↳ Fall in national public funding, linked to structural adjustment programmes, and some international funds that financed the research.

- ↳ Research findings do not appear in development programmes, reflecting the current disregard of ministries vis-à-vis research on forest ecosystems.
- ↳ Research is neither marketed to donors, nor lobbying done on the goals and ideas about the strength of forestry research.
- ↳ Funding is often short/medium term while some forestry research falls in the long term. However, there are trade-offs if institutions know how to adopt long-term strategic visions

### **Recommendations**

- ↳ Communicate to (1) donors, (2) private users of research products, (3) decision-makers in order to mainstream research objectives into national agendas.
- ↳ Better raise and take into account expectations vis-à-vis research through regular interaction with policy makers and donors, including at sub-regional events.
- ↳ Partner more with private companies to establish permanent plots, in carrying out their environmental impact assessment, or in monitoring environmental impacts. The current partnerships with logging companies have to open up to other sectors (agro-industries, mining, energy, infrastructure) with the aim of perpetuating long-term funded programmes.
- ↳ Funding should be directed to institutions and not to individual researchers.
- ↳ Demonstrate the economic and financial interest of sustainable management of forest resources, by identifying opportunities to increase direct and indirect contribution of this sector to GDP and by evaluating the wellbeing provided by ecological services.