Research in tropical rain forests: Its challenges for the future

EXPECTATIONS OF RESEARCH

SUSTAINABLE MANAGEMENT AND FORESTRY RESEARCH IN CAMEROON

Mr. S. Nguiffo

Centre pour l'Environnement et le Développement, Cameroon

Lecture presented by **Dr. O. Eyog Matig** (*Institut de Recherche Agricole pour le Développement - IRAD, Cameroon*)

1. INTRODUCTION

1.1. The forestry sector in Cameroon

The forestry sector in Cameroon is highly complex. It involves various actors with different interests and motivations. The forest constitutes one of Cameroon's major resources. It covers more than 60% of the national territory and is characterised by a wide variety of flora and fauna. Inventories made by State institutions on 14 million hectares of humid forest show a timber potential of about 1,517 thousand million m³ belonging to 600 exploitable species. To date, only 300 species are marketable, of which only about 60 are exploited on a regular basis. With the present market conditions, the exploitable potential stands at about 750 million m³. Timber can thus be regarded as one of the potential sources of wealth for the country.

Forests have been exploited under licence for many years. Exploitation started in the coastal region and, with the development of road and railway transport, gradually extended to other regions. The distribution of surface areas under licence shows that there are three major forest regions: Centre and South; East; Littoral and South West, which account for about 80% of the total production. Timber production by the formal sector is about 3 million m³. Five species, namely Ayous, Iroko, Sapelli, Azobe, and Frake, account for more than 70% of this production. There are 64 processing units made up of 58 sawmills, 4 veneer units, 1 cutting unit, and 1 manufacturer of matches, which represent a processing capacity of about 1.7 million m³ of logs. The secondary and tertiary processing industries have remained in their early stages. Very few industries are interested in industrial carpentry. The three operational companies prefer furniture-making and building-carpentry for the local market.

Mass production of good-quality products for export is almost non-existent. In the past decades, very little effort has been made to undertake truly sound management. It consisted mostly of collecting revenue from logging operations. The revenue was used by the Forestry Department to preserve the protected areas, or to create some forest plantations. At the same time, the Forestry Department was very inadequate and poorly equipped. Its staff were not trained, and earned very little.

In the late 1980s, a conjunction of dramatic events totally changed the face of the forestry sector in Cameroon. These were:

- The signing of the Structural Adjustment Programme with the IMF;
- The drop in national oil production;
- The financial crisis in the country.

As a result, the Forestry Sector is now regarded as an important source of income by the Government. It was decided that, by the year 2000, Cameroon should become the biggest timber exporter in Africa. This target was reached in 1992.

The people living in the forest are excluded from the management of the forest. They have no (or very few) benefits from logging, and they suffer the most from the social and ecological upheavals. Based on studies pointing out this dramatic situation, the Centre pour l=Environnement et le Développement (CED) came into being in 1994.

1.2. Presentation of the CED

The CED is a young Cameroonian NGO which was set up in response to problems encountered in the management of forest resources in Cameroon. CED's main objective is to promote the involvement of local communities in sustainable forest management and in benefit-sharing. CED is involved in forest management at two different levels:

- The local level, and
- The regional level.

1.2.1 At the local level

CED action aims at:

- 1. Providing assistance to local communities willing to reduce their pressure on the forest;
- 2. Promoting traditional knowledge on the use of the forest;
- 3. Empowering local groups with a view to reinforcing their capacity to manage their community forests;
- 4. Disseminating information on the content of the forestry law.

CED is conducting a number of activities aimed at improving the participation of local communities in the sustainable management of tropical forests while improving their living conditions. We achieve these objectives through:

- 1. Empowerment of the Baka (an indigenous group of people from the Cameroonian forest). The objectives of that programme are:
 - To establish food self-sufficiency in the Baka community;
 - To develop income-generating activities in the communities;
 - To valorise the traditional know-how of the Baka in the management of forest resources, especially Non-Timber Forest Products (NTFP).
- 2. Experimentation with biological farming:
 - To reduce the actual rate of deforestation and land degradation as a result of shifting cultivation;
 - To reduce pollution by the use of natural fertilisers and biological techniques in agriculture;
 - To increase agricultural yields;
 - To reduce the dependency of local farmers on producers and dealers of chemical pesticides.
- 3. Research on traditional practices and local technologies aimed at:
 - Making an inventory of local technologies that can be disseminated for the sustainable management of forests;
 - Setting up a data bank of small-scale technologies and knowledge;
 - Testing small technologies and disseminating the best through trials at the local level.

1.2.2 At the regional level

Following-up and monitoring policy and practices in forest management in Cameroon and in Central Africa. These policies and practices strongly affect people living in the forest. CED is deeply concerned with key issues related to forest management in the Congo Basin. These include timber certification, mainly with the Forest Stewardship Council (FSC); involvement of Asian logging companies in Africa; the difficult implementation of community forestry, etc.

CED target groups are communities living in the forest. Particular attention is being given to the Baka. CED employs six persons working full-time, and specialists in various fields (agronomist, specialist in soil management, environmentalist, and social scientists). CED also works in collaboration with about twenty part-time local assistants.

Project area

CED field activities are located in the south of Cameroon, in the areas of Djoum, Nkongmekak, and Zoetele. In these areas, CED is conducting the following activities:

- The dissemination of information on biological farming to reduce dependency on shifting cultivation and to promoting the use of local knowledge in fertilisation and the fight against pests;
- The dissemination of information on the use of NTFP as a way to reduce villagers' expenses and, if possible, as a way to generate income;
- To provide training in group management and in the implementation of group activities;
- Experimentation in the field of game breeding and apiculture using local species.

2. INFORMATION NEEDS

At the beginning, CEDs activities were based on:

- The joint identification of needs with the target groups in the project area, focusing on possible solutions to problems that were identified on the basis of data available to CED, or short studies conducted by our small team;
- Exchange of experience with other organisations and experts involved in the same issues.

This method was very difficult, because of the lack of specialists capable of providing support to communities in the field of forest management, as opposed to Sahelian areas, for example, where support activities have been going on for many years. It is relatively easy to point out the problems, but it is much more difficult to provide solutions.

CED requires immediate information to further its activities, including:

- Information on small-scale equipment for the processing and conservation of forest products;
- Information on the market for the NTFP, both at the national and international levels;
- Information on the regeneration of threatened tree species with high commercial and traditional values (Bubinga, Moabi, etc...);
- Knowledge on the non-chemical regeneration of soils.

3. HOW AND TO WHAT EXTENT DID CED BENEFIT FROM RESEARCH?

The results of research were used by CED in two different ways:

- By exchanging experience with other research centres;
- By using research documents.

3.1. Exchange of experience with other research centres

CED shared experiences with IITA, CIFOR, ICRAF, ECOFAC, and the Catholic University. The main areas of exchange were NTFP and methods of regenerating Moabi trees. Experiments are currently being performed in our project area. Field trips have been organised for farmers from our project area to experimental plots of ICRAF and IITA. These trips aim at teaching the farmers various techniques of agroforestry and soil conservation.

3.2. Use of research documents

The more frequently used documents were *Nature and Fauna*, the FAO review, and documents prepared by the German GTZ, for the implementation of a micro-project on game breeding.

4. CED INVOLVEMENT IN RESEARCH

In the area of research, we have conducted a number of specific studies to increase our understanding of the forest conservation problem in Cameroon, but also to improve the efficiency of our actions in the field. Some of the topics were:

- The management of the commons in Cameroon;
- Study of the regional environment of Dja et Lobo;
- Study on local forest practices in Cameroon: case study of the Mfouladja region;
- A survey on local/traditional practices in the management of the rain forest: case study of Cameroon;
- Integration of customary rights in forest management in Cameroon;
- Detailed map of Baka camps in the Djoum, Oveng, Mintom regions.

We have also conducted a number of studies on timber certification.

5. WHAT TYPE OF INFORMATION IS CED STILL LACKING FOR DECISION- MAKING ON SUSTAINABLE FOREST MANAGEMENT?

CED lacks two types of information that hinders its effective functioning. They are:

- Social and anthropological data;
- Data on forest resources and on NTFP.

The social and anthropological data include the following themes:

- The traditional value system of the forest;
- The knowledge of indigenous people, particularly that of the Baka (studies of acculturation process, systems of communication, traditional use of the forest, etc.);
- Is it possible (and if so, how?) to promote community forestry even in horizontal societies?

As for the forest resources data, they include the following:

- An exhaustive and scientific answer to the following question: is logging in primary forest possible without resulting in conversion (i.e. is it possible to implement sustainable forest management and certify logging in primary forest)?
- The systematic identification of exploitable forest resources, mainly NTFP;
- Are there alternatives to shifting cultivation that can be implemented at low cost in forest areas?

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Challenges and Problems; Information Needs

- Small scale methods for the processing and conservation of forest products.
- Information concerning the national and international markets for NTFP.
- Information on the regeneration of threatened trees species.
- Knowledge on non-chemical regeneration of soils.

Points for Future Research

- Social and anthropological studies: traditional value systems; traditional forest use.
- Knowledge of forest resources: NTFP and sustainable logging systems.