

## Case Study 2 - Forest Concession Land Use Planning : Lessons Learned from the Enzyme Refiners Association (ENRA) Forest Concession

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### Introduction : Overview of ENRA forest concession

With its large tracts of tropical rainforests, the Democratic Republic of Congo has been attracting many logging companies that are eager to tap into its enormous timber resources that are still little exploited to date. The near total breakdown of transport infrastructure, however, limits large-scale timber exploitation to forests along navigable sections of the Congo River and its main tributaries, confining industrial logging to western regions of the country. In eastern DRC, most logging is carried out by small-scale operators using chainsaws and selling timber to neighbouring countries. ENRA (Enzyme Refiners Association) is the only industrial logging company operating in the region and is located east of the city of Kisangani, along the easternmost navigable section of the Congo River.

ENRA forest concession is situated south-east of

the Ituri-Aru Landscape in the north-eastern part of the Congo Basin forest block. The initial concession of 52,190 ha was granted to the company in 1982. Because of large-scale forest destruction in this concession by illegal settlers, ENRA requested and was granted an additional 28,800-hectare forest block to the west of the first concession in 2005.

The ENRA concession is entirely contained in the administrative collectivity of Babila-Babombi, Mambasa Territory, Ituri District in Orientale Province. The company's headquarters and wood transformation facilities are based in Beni, Nord-Kivu Province, just to the south of the Landscape. The topography of the forest concession is gentle with occasional rolling hills. Elevation ranges from approximately 800 m in the west to 950 m in the east. The concession is covered by a dense network of rivers and streams that feed the Upper Ituri River and constitute natural limits of the forest concession.



**Figure 1. Okapi Faunal Reserve and the Ituri Landscape**

The vegetation in the area is a mixture of evergreen forest, including extensive areas of monoculture forest dominated by *Gilbertiodendron dewevrei*, and semi-deciduous forest with a canopy containing higher representation of major timber tree species including Iroko, Sapeli, Sipo, Tiama, and African mahogany. Secondary forests cover significant portions of the concession. These originate from both natural and anthropogenic causes. In the eastern and southern parts of the concession, forest degradation has accelerated over the past two decades leading to the conversion of large areas of closed forest into a mosaic of logged forests, regenerating vegetation and active farming fields.

The forests in the ENRA concession contain high diversities of fauna and flora. Prior to logging operations, these forests harboured several species of large mammals important to conservation such as Forest elephant, Okapi and Chimpanzee. Other large mammals that were present in the forest concession included the Leopard, Forest buffalo, Giant ground pangolin, Bush pig, Forest aardvark, Giant forest hog, Baboon and several

species of *Cercopithecus* and *Colobus* monkeys, and Mangabeys. Informal interviews with Mbuti pygmies dwelling in the concession indicates that most of these large mammals have gone locally extinct, particularly those that require large tracts of undisturbed forest such as Forest elephant, Okapi, Leopard and Forest buffalo. The disappearance of those species in the concession can be largely attributed to the conversion of mature forest areas into farmland<sup>1</sup>. As indicated above, the concession is also rich in high-value timber species. The most abundant and commonly harvested species are Iroko, Sapeli, African mahogany, Tiama, Olovongo, Kosipo, Mukulungu and Limbali.

In addition to its high plant and mammal diversity, the forest in the ENRA concession is important as a corridor between two forested protected areas, the Okapi Faunal Reserve and the northern sector of Virunga National Park.

Prior to commercial logging operations, the forests of the area were very sparsely settled. A few villages were located along an old mining road linking Beni to Mambasa that bisects the concession in a north-south direction. However, that has changed as the concession borders the heavily populated Kivu highlands that are a major source of immigration into the concession. The rebuilding of the Beni-Mambasa road for logging purposes in the earlier 1990s has facilitated human intrusion into the forest concession, dramatically increasing the human population density<sup>2</sup> and accelerating the rate of forest degradation. Major ethnic groups inhabiting the concession are the Bila, the natives of the land, and Nande immigrants who settled in the area after road construction by ENRA in the early 1980s. There is also an important population of nomadic, hunter-gatherer Mbuti pygmies. While the latter generally inhabit the forest interior, most of the population is located along the main transport routes. A few major population centres have recently developed in the concession because of

<sup>1</sup> Recent wildlife surveys indicated that Forest elephant, Okapi, Chimpanzee and other large mammals have disappeared in the logged and degraded forests of the concession. Chimpanzee presence was recorded in the new forest block, with a higher nest density than ever seen before in the Ituri Forest.

<sup>2</sup> Rapid socio-economic surveys conducted in 2006 indicated that the human population density was ~ 34 people/km<sup>2</sup> in the concession.

immigration pressure. Biakato, the most important population centre in the concession, boasts a population of over 13,000 people.

The major subsistence activities in the concession are agriculture, mining, bushmeat hunting and small-scale trade in manufactured goods. Animal husbandry is minimally developed in the area. Major food crops grown in the concession include cassava, plantain, upland rice, maize and groundnuts. A few cash crops are commonly grown by immigrants and include coffee, oil palm and papaya. Cacao is only recently being cultivated in the concession area. Agriculture and bushmeat hunting constitute the main threat to the forests of the ENRA concession.

ENRA started logging operations in 1984 and has since continued without major interruption until the present day. ENRA is a relatively small company (almost 200 employees) harvesting on average less than 10,000 m<sup>3</sup> of logs a year<sup>3</sup>.

The major strength of ENRA, which makes it unique in DRC, is its production of a wide variety of processed products. The company has a parquet flooring plant that produces high-quality decorative parquet floors and panels for wooden ceilings from a wide range of species. Parquet floors produced from Iroko are the leading product of the company and they are mainly exported for European markets. In addition, ENRA runs a joinery/carpentry workshop that makes decorative doors and windows and high-quality furniture.

## ENRA forest concession land-use planning methodology and results achieved

### Methodology

The CARPE Performance Management Plan re-

commends that each macro-zone<sup>4</sup> in CARPE landscapes be covered by an integrated land-use plan (LUP). Currently, the ENRA logging concession is the only active Extractive Resource Zone<sup>5</sup> in the Ituri-Epulu-Aru Landscape. The goal of the WCS land-use planning process in the ENRA forest concession is to assist ENRA to produce a management plan for its concession. This plan is required by the new DRC forestry law and will promote sustainable timber harvesting and biodiversity conservation. Because the ENRA forest concession has been settled by significant numbers of farmers, it is vital to conduct micro-zoning work to determine areas to be set aside for the needs of local populations already inhabiting the concession, and forest areas for timber exploitation. The major steps undertaken in the land-use planning process for the ENRA concession are:

- **Collaboration agreement between WCS and ENRA** : The first step in WCS's involvement in the ENRA concession's land-use planning process was to sign an agreement with the company to determine the objectives of, and the principles guiding, our collaboration, as well as the rights and obligations of each party.
- **Assessment of the state of the forest in the concession** : A preliminary evaluation of the state of the forest was conducted through a series of meetings between ENRA's leadership and timber harvesting team, and the traditional chiefs or customary landowners in the forest concession. In addition, satellite images were used to determine the scale of forest degradation in the concession.
- **Sensitization meetings** : Through meetings with ENRA's leadership, key stakeholders were identified. Informal and formal meetings were held with key stakeholders individually or in groups to explain the need for land-use planning to promote sustaina-

<sup>3</sup> Due to the enormous distance to its export point in Mombasa (Kenya), ENRA only exports added-value products, particularly parquet flooring, to Europe. All logs are processed locally in Beni, increasing logging benefits to the local population in the form of employment opportunities and access to high-quality wood products.

<sup>4</sup> Rapid socio-economic surveys conducted in 2006 indicated that the human population density was ~ 34 people/km<sup>2</sup> in the concession.

<sup>5</sup> An Extractive Resource Zone is an area designated for large-scale commercial exploitation of natural resources (i.e., logging or mining concessions, large-scale agricultural plantations, safari hunting reserves, etc.)

ble forest utilization and to determine the potential interests of local communities. Local state authorities at the collectivity and territory levels, and the local forestry administration service, were brought in to facilitate negotiations between ENRA and the local communities. This process has led to the signature of a collaboration accord between ENRA and local communities in which the rights and obligations of each party are spelled out.

- **Participatory mapping of the extent of human settlements in the concession** : A team composed of ENRA staff, the local forestry administration, and representatives of pygmy communities mapped the limits of human penetration into the forest concession. During this work, the boundaries of clan lands were delimited to help determine the level of customary dues paid by ENRA to each clan.
- **Signature of an agreement between ENRA and local communities** : Encroachment into the forest concession is facilitated by traditional landowners who give lands to new immigrants in exchange for meagre dues paid annually in the form of a goat or a portion of agricultural production. WCS facilitated the signature of an agreement between ENRA and traditional landowners aimed at stopping forest encroachment by prohibiting the “sale” of new lands to immigrants. The agreement also spells out ENRA’s contributions to local development projects. Now the agreement has been signed, it must be validated by the district and provincial authorities.
- **Forestry and biological surveys** : Rapid forestry and biological surveys were used to evaluate the abundance of major timber species and the presence/abundance of key mammal species, particularly elephants, Okapi and Chimpanzees, in order to guide the process of micro-zoning of the concession. During these surveys we also gathered details on the level of forest degradation in the concession.
- **Human population census and socio-economic surveys** : These surveys were conducted to document social organization, immigration pressures and human activities. Key elements recorded were the distribution of residents by localities (or clans), ethnic groups, length of stay in the concession (immigration pressure), major economic/subsistence activities, agricultural production, education, access to education and health care, market opportunities for agricultural products, native-immigrant relations, relationship with ENRA, etc. This activity was conducted by a mixed WCS-ENRA team.
- **Participatory micro-zoning of the concession** : The human population census and socio-economic surveys indicate a heavy and increasing presence of humans within the concession limits, particularly immigrants whose main activity is extensive farming. It will therefore be vital to clearly delimit areas devoted to subsistence agriculture and timber exploitation zones. A team composed of WCS experts, ENRA staff, and representatives of local communities will map the front line of human settlement, evaluate the needs of the existing populations for farmland, and propose limits for the agricultural and timber harvesting zones.
- **Validation of micro-zones** : Once the above step is accomplished, a meeting bringing together all key stakeholders will be organized to evaluate and validate the limits of the proposed micro-zones.
- **Development of alternative activities in community development areas** : ENRA, in partnership with ESCO-Kivu<sup>6</sup> and WCS, is promoting shade cacao cultivation and reforestation projects in degraded forest areas as a means of increasing farming income and slowing down the encroachment of people into new areas of mature forest. Other current or planned alternative activities include artisanal timber exploitation in agricultural zones, promoting the education of native children, and honey production by pygmies. Expert assistance from development organizations is critically needed with these activities to ensure effective local

<sup>6</sup> A private company dedicated to agricultural production.

community participation in land-use planning processes.

- **Production, implementation and monitoring of a management plan** : The ultimate goal of the land-use planning process for the ENRA forest concession is the production and implementation of a management plan for the concession, as outlined in the above steps. Once the plan is produced and being implemented, it must be monitored to ensure continued effectiveness.
- **Validation of the plan by higher state and forestry authorities** : ENRA and WCS work closely with local state authorities at the collectivity and territory levels. Once the forest concession management plan is complete, it will be submitted to district, provincial and national authorities for validation.

## Results achieved

The land-use planning process is still at an early stage in the ENRA forest concession. However, a few achievements have been accomplished :

- **Improved relationship between ENRA and WCS** : WCS is well-known in the Ituri region as a conservation organization concerned with wildlife protection in protected areas. Thus, there was a sense of suspicion or mistrust from ENRA towards WCS's activities in its concession. Effective collaboration between WCS and ENRA started only a year ago after ENRA realized that WCS's work in its forest concession was helping to improve the company's image locally, nationally and internationally. The company has now entrusted WCS to oversee all zoning work in the forest concession. This will certainly help accelerate the process of land-use planning in the concession.
- **Strategy for the land-use planning process** : A strategy document outlining the steps and process of land-use planning for the ENRA concession has been produced by WCS and approved by ENRA. This strategy plans the writing of a management plan for the forest concession by 2010.
- **Collaborative platform for land-use planning** : A platform has been put in place to

coordinate and monitor activities related to land-use planning in the ENRA forest concession. It includes ENRA, WCS, representatives of local communities and immigrants, local state authorities (collectivity and territory levels), the local forestry administration, ESCO-Kivu, and local NGOs (PAP-RDC and SOS Nature). Significant results achieved through this platform are :

- Quarterly meetings of all key stakeholders since 2006;
- Signature of an agreement between ENRA and local communities in 2007.
- Accurate data on the state of the forest and on human population in the concession: Through field evaluations, interviews, forestry and biological surveys, and socio-economic surveys, precise information has been gathered on :
  - The level of forest degradation;
  - The size and distribution of the human population, and its activities in the concession;
  - Timber abundance;
  - The presence and spatial distribution of key wildlife species.
- Fundraising to develop alternative activities: WCS has received a grant from the IUCN Netherlands to promote shade cocoa plantations and to support artisanal timber exploitation by local communities in the ENRA concession buffer zone.

## Lessons learned

### The importance of active involvement by the concessionaire

The concessionaire is responsible for producing the management plan for the concession as required by the new forestry legislation in DRC. The CARPE programme recommends that CARPE partners assist private operators or government organizations responsible for the management of each identified macro-zone to produce management plans for their zones. However, the activities of CARPE partners can only be successful if the legal management authority of the macro-zone is actively involved in the process. Initially, the major constraint encountered in the land-use planning

process for the ENRA concession was ENRA's resistance to collaborate with WCS. This resistance was overcome after regular and public debates between ENRA and representatives of local communities with involvement of local authorities and state officials and with technical advisors from WCS. The land-use planning process is now progressing well. Thus, as we learned, the first step when working with private operators or government agencies in land-use planning must be to convince them of the necessity of the process. In the case of timber concessions, the publication by the central Government of application measures of the new Forestry Code related to forest management in timber concessions was of great importance for enticing timber operators to seek help in forest management processes.

### **State authorities are key players in the land use planning processes**

In Ituri-Aru, as elsewhere in DRC, local state authorities are generally weak and ineffective. However, they represent the legal authority for management of natural resources. If ignored, they can seriously obstruct the successful realization of land-use planning initiatives. In addition, the sustainability of land-use planning depends on the involvement of state officials and forestry services in the process. In the ENRA concession, collaboration with local communities was moving very slowly until the Administrator of the Mambasa Territory threw his weight behind the process. Since then, quarterly meetings have been systematically organized and an agreement has been signed between ENRA and local communities.

It is therefore crucial to involve local state authorities and forestry administration in all activities related to the land-use planning process in concessions to avoid the development of resistance to the process and to guarantee the sustainability of this work beyond the CARPE funding period.

### **The necessity of taking into account the regional context**

Eastern DRC has experienced many social pro-

blems in the recent past, the most important being land shortage due to high human population density and growth, and civil unrest. Successive rebellions have resulted in the almost total collapse of the government institutions responsible for land management. This situation facilitated the uncontrolled settlement of sparsely populated forests by immigrants in search of available agricultural lands. The encroachment of forestlands in the ENRA concession has also been exacerbated by the eviction of farmers from the Virunga National Park. It is difficult for an NGO to deal with such issues on a case-by-case basis.

Effectively dealing with issues of human encroachment in production forests requires that external forces and the regional context are taken into account in the land use planning process. For example in this case, the regional LUP (e.g., landscape-level LUP) should set aside areas designed to absorb immigration pressure, and put in place strategies to channel new immigrants to designated areas in order to reduce pressure on the production forests.

### **The importance of understanding traditional and legal land tenure systems**

In the Kivu highlands, land belongs to individuals and can be rented or sold, whereas in the forested regions of the Ituri Landscape, land belongs to the community. Although the traditional chiefs or clan elders in the Ituri Landscape have the authority to grant usufruct rights to outsiders, they actually cannot sell the community land. Currently, landless immigrants from the Kivu highlands are flocking into the forested regions with the aim of acquiring land for themselves and their children, ignoring the local land tenure philosophy (this is different from the situation in the Okapi Faunal Reserve where immigrants tend to be temporary residents because they cannot actually acquire forestland for themselves). The land acquisition rush is accelerating forest degradation because new immigrants are widely scattered in the forest concession to ensure that each has enough land area for his descendants. This difference in land tenure systems between the native population and the immigrants has a po-

tential to create ethnic clashes in the future when native people realize their previous generations sold out their traditional forestlands to immigrants.

These views totally ignore DRC forestry laws that stipulate that all forestlands belong to the State, which has the exclusive right to rent or sell land to private individuals or companies. WCS, in partnership with the local forestry administration, is conducting a sensitization campaign with both local communities and immigrants to increase their knowledge of national forestry laws. These efforts are however hampered by the unavailability of the application or enforcement measures<sup>7</sup> of the forestry code.

### **The need to understand both individual and community interests**

ENRA interventions in local development activities are generally oriented towards community projects that benefit the wider society (e.g., constructing schools and dispensaries, fixing roads, etc.). However, traditional chiefs with customary authority to allocate land to immigrants have personal needs that are not satisfied by community projects. Thus, the chiefs use their customary rights to grant the concession forestlands to immigrants and they receive direct payments. It is crucial that this cultural aspect be taken into account in the land-use planning processes, particularly in logging or mining concessions where a private company is claiming control of the land by the virtue of a contract signed with a “distant” government institution with little local community involvement.

Even members of the community do not always value the long-term benefits of community projects and land-use planning. It is important to think about immediate benefits, such as hiring local residents in logging teams or as labourers for construction work, and financial support for the education of selected native youth.

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<sup>7</sup> Enforcement measures are detailed regulations and procedures taken by a ministerial decree and intended to explain how a law will be applied.