

CONSERVATION IMPERATIVE AND DEVELOPMENT CHALLENGES AROUND THE YANGAMBI BIOSPHERE RESERVE

ALBERT KOLEMBELA BOKOMBA¹ & EDMOND MOKUINEMA BOMFIE²

¹Assistant at the University of Kisangani, specialist in environmental sociology

²Full professor at the University of Kisangani, expert in environmental sociology

<https://doi.org/10.37602/IJREHC.2024.5419>

ABSTRACT

The environmental problem is no longer the prerogative of the natural sciences but also the social sciences, particularly Sociology. In this century, planet Earth is threatened by global warming, requiring the conservation of forests.

Sociologically, we can only be interested in the conservation of forests by worrying about the people who can ensure this conservation. Given this macabre situation among the populations living near protected areas, it is for this reason that we considered it appropriate to analyze the imperative of conservation and development issues around the Yangambi Biosphere Reserve.

1.0 INTRODUCTION

To date, the planet is facing an environmental crisis that requires careful studies to find the answer to this important question. The environmental question is no longer only the object of study in the natural sciences, but also in other sciences, and especially the social sciences, which study man, because it is man who is the main actor in the destruction or conservation of nature. If we see the mobilization of scientists from all disciplines on this issue, it is to look for ways out, to finally find an urgent solution to this situation which could cost the planet dearly, this is how the United Nations, regional, national and local organizations are mobilizing as one man to conserve nature first for our good and then for the future generation.

The Democratic Republic of Congo is full of important natural and biological resources. In view of the importance of these resources in growth, development and the fight against poverty and climate regulation, it is essential to put in place effective strategies and rules for the conservation of these resources.

Ecosystems in the DRC are seriously threatened by demographic pressure and development needs due to activities such as intensive agricultural and industrial land clearing, unsustainable logging, etc. The dangers related to the misuse of biodiversity resources lie at the level of the irrational exploitation of species and ecosystems. With such exploitation of resources, it is not possible to ensure their sustainable use, as a result we penalize future generations, hence the interest in knowing whether the Forest Code and Order No. 038/CAB/MIN/ECN-EF/2006 creating nature reserves have any flaws because this provision does not provide anything for local communities (Pannequin.G and Mocilnikar A.T, 2011)

Indeed, nature conservation is currently governed by Ordinance-Law No. 69-041 of 22 August 1969 as amended and supplemented by Law No. 14/003 of 11 February 2014 on nature conservation, the implementation of which has proved difficult due to the lack of implementation measures. In addition, this ordinance does not take into account the new challenges imposed by sustainable development and the fight against poverty of local populations who do not actively participate in the management of protected areas in order to derive legitimate advantages and benefits (PRIEUR. M, 1984)

Given the importance of conservation to date in combating climate hazards, there has been the emergence of non-governmental organizations that support issues related to nature conservation. In the city of Yangambi, we have: FORET, MAB, INERA, Tropenbos project and so many others that educate the population on the importance of nature conservation. They campaign for nature conservation without taking into account the daily lives of local communities, which creates several evils.

Protected areas play an important role because they present viable reservoirs of biodiversity: human pressures are increasingly weighing on natural resources, especially in developing countries where agriculture is the activity of substance, of choice, the effects of which are further aggravated by population growth, this is how the population explosion is manifested in protected areas and this encourages the violation of protected areas which is becoming more prevalent. Characterized by the relocation of bollards or signs, or by deforestation for domestic uses (construction wood, firewood, or by charcoal production, poaching, illegal fishing, illegal trafficking of resources, etc.) (KALPERS 1997)

In this century the world is fighting against global warming by conserving forests, which is why scientists have seen fit to conserve certain spaces and plant trees to fight against global warming which results in climate disruption. Local communities live from forestry activities with the practice of cutting and burning the forests to finally sow and wait for the harvest, practice hunting and gathering. (REMOND-GOUILLOUD. M, 1980)

To date; the local communities living around the Yangambi Biosphere Reserve are in difficulty because they can no longer use the forests that sustain their lives and this has serious consequences on the environment but also without thinking about the social consequences that this has on the local communities.

If we take into account ecological limits, we recognize that there is a close relationship and a specific interaction between humans and the natural environment. In the practice of local communities, the forest plays an important role and especially that the majority of the population considers it as a source of wealth. Limiting access to natural resources risks dispossessing local populations of their life project and their physical, social and political freedoms, including their cultural identity.

Social justice and ecological justice are thus partly linked, the challenge is to guarantee the capacity of living beings to exist together; to find the means of existence between man and ecology, to hinder the mode of organization. The relationship that exists between man and the ecological system gives rise to a vision that is not only of the environment as a simple decoration of our society but as that of a community of destiny. The ecosystem interacts with

each other, man needs the forest and the forest needs man, aware of this rather worrying state of affairs; Congolese legislators are implementing comprehensive biodiversity strategies.

The Yangambi Biosphere Reserve threatens both the social and cultural aspects of local communities and this creates uncertainty for the communities living around the reserve. The social protection of grassroots communities is much more relevant because it is quite unlikely to protect nature without thinking about the socio-economic conditions of the peoples who are called upon to conserve this nature. With this concern in mind, our reflection will be conducted around the following main question:

- Why do the conservation requirements of the Yangambi Biosphere Reserve constitute an obstacle to the development challenges of the local populations?
- What are the main restrictions imposed on local populations around the Yangambi Biosphere Reserve?
- How can the conservation requirements as set by the Yangambi Biosphere Reserve be addressed?

In view of the above problem, we think we can answer our question in the following way:

- The conservation imperatives of the Yangambi Biosphere Reserve constitute an obstacle to the development challenges of local communities because these imperatives favor the forest much more without taking into account the basic needs of the man who is supposed to protect this forest.
- The main restrictions imposed on local communities around the Yangambi Biosphere Reserve are: prohibition of slash-and-burn agriculture, prohibition of hunting or fishing, prohibition of cutting down trees for construction, embers or heating and this has a negative impact on the survival of the local population.
- To remedy this situation, the structures in charge of conservation should have a permanent framework for exchange with the local community to identify their priority demands and needs.

The operational objectives pursued in this work are:

- To analyse the causes that make the conservation imperative an obstacle to the development challenges of local communities around the Yangambi Biosphere Reserve,
- List the main restrictions imposed on local communities living around the Yangambi Biosphere Reserve,
- Develop strategies to address this situation

2.0 METHODOLOGICAL FRAMEWORK

2.1 Study Environment

Located in the heart of the province of Tshopo, west of the city of Kisangani near the Equator in the middle of the central basin, the territory of Isangi is one of the seven territories that make up the province of Tshopo with an area of 15,770 km² divided into 15 entities including 13

communities and sectors including chiefdoms and 2 cities, namely the city of Yangambi which is under study as part of the this work and the city of Yanonge.

The territory of Isangi is limited to, by:

- i. To the north by the territory of Opala
- ii. Southeast by Yahuma,
- iii. south-west by the territory of Banalia and
- iv. North-east by the city of Kisangani.

The climate of the Yangambi Biosphere Reserve is of the transitional type between Af and Am of the Koppen classification. The variation in the average temperature is very small during the year, 28°C to 33.7°C for the maximums and 16.4°C to 19.8°C for the minimums. The average temperature varies between 23.7°C in July and 25.6°C in March. The monthly average is 24.6°C.

2.2 Population

The population of this study includes the entire population living around the Yangambi Biosphere Reserve. We used the occasional sample of 105 subjects, including 50 women and 55 men. They have gladly agreed to respond to our various concerns.

2.3 Research Method and Technique

We used R.K. Merton's functional analysis to test our research hypotheses. (ESISO 2022)

To highlight the constitutive paradigm of the said analysis, we have illustrated the steps of this method in the following way:

- Consider function as an observed consequence of a social phenomenon, which contributes to the adaptation or adjustment of a given system. The manifest function is a function understood and desired by those concerned. The conservation imperative must take into account the needs of the local population before applying restrictions so that it cannot impact the survival of the community that lives through forest-related activities
- Distinguish between the function desired and recognized by the supporters of the system and the latent function or hidden function that is neither desired nor perceived by the actors. Setting the imperative of conservation without taking into account the needs of the population, applying restrictions to the disadvantage of the local community pushes the latter to disobedience, which is why the local community boycotts to obey these restrictions which are to their disadvantage.
- Discern dysfunction which, conversely, reduces the possibilities of adaptation or adjustment of the system (perverse effects). These are unintended consequences. With the restriction not taking into account the needs of the local community, we are now witnessing the abusive exploitation of the forests, hunting and fishing around the Yangambi Biosphere Reserve by local communities.

- To establish a functional alternative involving the functional equivalent or substitute, i.e. alternatives to the functional differences of a social system or subsystem that becomes unfit to perform certain functions. To address this situation, the Yangambi Biosphere Reserve collaborates with NGOs that campaign for nature conservation in the area such as UFOREST Project, Friends of Nature, MAB, Tronpens Boss etc. which facilitates awareness raising to show local communities the importance of conservation

To carry out this study, we used:

- the documentary technique which has been important to us to enrich the present work by consulting the various documents relating to our theme,
- the interview technique allowed us to talk to the people of the different villages around the Yangambi Biosphere Reserve to receive additional information on this subject, including their opinion on the Yangambi Biosphere Conservation Imperative
- Direct and spontaneous observation allowed us to come into contact with the populations living around the Yangambi Biosphere Reserve. This technique allowed us to feel the reality of the poverty that the population around the Yangambi Biosphere Reserve is experiencing.

3.0 PRESENTATION DES RESULTATS

At the end of the survey; we achieved the following results:

3.1 representation of the populations living around the Yangambi Biosphere Reserve.

In this table, we want to know the opinion of the local people living around the Yangambi Biosphere Reserve

Table I Opinion of local people on conservation around the Yangambi Biosphere Reserve

Opinion	f	%
Favorable	34	32,3
Unfavourable	69	65.7
Undecided	2	1.9
Total	105,	100

Source: field survey

The result in the table above shows that:

- 65.7% of our respondents expressed an unfavourable opinion,
- 32.3% expressed a favourable opinion of conservation and finally
- 1.9% are undecided

Table 2. Ratio of activities of local people living around the Yangambi Biosphere Reserve

Sector of activity	f	%
--------------------	---	---

Small trade	11	10.4
Agriculture	78	74,2
Fishing and hunting	16	15.2
Total	105	100

Source: field survey

The table above shows the following:

- 78 out of 105 respondents i.e. 74.2% have agriculture as their main activity
- 11 out of 105 respondents, i.e. 10.4%, have small business as their main activity
- 16 out of 105 surveys i.e. 15.2% have fishing as their main activity

Table 3: How is the encroachment of local development around the Yangambi Biosphere Reserve taking place?

Answer	f	%
Prohibition of logging	79	74.2
Prohibition of fishing and hunting	10	9.5
Prohibition of pharmacopoeia	6	5.7
Lack of specifications with the community	10	9.5
Total	105	100

Source: our field survey

The table above shows the following:

- 74.2% of our respondents think that the encroachment of local development is done by the prohibition of logging forests,
- 9.5% of our respondents think that the encroachment is made by the ban on fishing and hunting
- 9.5% of our respondents think that a lack of specifications between the community and conservation structures would be the basis for encroachment on local development
- 5.7% of our respondents think that banning the pharmacopoeia would also be a way of encroaching on local development

Table 4 Claims of local communities for the development of the environment

Demand of local communities	f	%
Framework for permanent exchange with the local community	43	40.9
Signing of a Statement of Work with the local community	51	48.5
Initiated development projects for local communities	4	3.8
Job creation for local communities	6	5.7
Total	105	100

The table above shows the following:

- 48.5% of our respondents confirm that the main demand of the local community would be the signing of a specification
- 40.9% demand the framework for permanent exchange between the local community and conservation structures,
- 5.7% demand the creation of jobs for local communities and finally
- 3.8% claim development projects for local communities

Figure 5. Needs felt by local communities

Revendication	F	%
Construction of schools	22	20.9
Hospital construction	17	16.1
Road rehabilitation	36	34.2
Accompagnement da l'agroforesterie	10	9.5
Installation of communication networks	4	3.8
Permanent framework for exchange between RBY and CL	16	15.2
Total	105	100

- In this figure, 34.2% demand the rehabilitation of roads
- 16.1% demand the construction of hospitals
- 20.9% demand the construction of schools
- 15.5% of respondents call for the establishment of a permanent framework for exchange between conservation structures and local communities
- 9.5% of surveys call for support for conservation structures in agroforestry
- 3.8% of respondents claim that Athens has communications because other villages are still landlocked.

Figure 6. Existence of a permanent framework for exchange between Yangambi Biosphere Reserve and local communities

Answer	F	%
Yes	32	30.4
Not	73	69.5
Total	105	100

In this figure, the result proves that:

- 69.5% of the population studied confirms the non-existence of a framework for exchange between local communities and conservation structures, on the other hand,
- 30.4% confirm the existence of a permanent structure of exchange between the conservation structures and the local community.

Figure 7. Climate of relationship between the local community and conservation structures

Answer	F	%
Good	22	20.9
Bad	78	74.2

Distrust	4	3.8
Other	1	0.9
Total	105	100

In this figure we see the following:

- 74.2% of the population in the study tell us that the climate is bad
- 20.9% think the climate is good
- 4% think that there is mistrust and finally
- 0.9 provided a different answer

4.0 DISCUSSION OF THE RESULTS

4.1 Views of the people living around the Yangambi Biosphere Reserve on the conservation imperative

The communities living around the Yangambi Biosphere Reserve have an unfavourable opinion of the conservation imperative which does not take into account the survival of the local population while they live from their activities related to the forest while they suffer discrimination related to employment and this has harmful consequences for society (banditry, delinquency, prostitution, theft etc.)

4.2 inventory of the sectors of activity around the Yangambi Biosphere Reserve

People are much more active in agriculture, petty trade, fishing and hunting. We would like to point out that these activities do not generate a lot of resources but it just contributes to the survival of the population living in this area. If we want to list the sectors of activity of the young people living around the YANGAMBI Biosphere Reserve, we can say that agriculture plays a very important role for young people and small trade comes in second place both for young people in school and not because very few activities are offered to young people in school, which promotes the rural exodus.

4.3 Local development encroachment around the Yangambi Biosphere Reserve

Given that the populations living around the Yangambi Biosphere Reserve live from forestry activities, prohibiting them from doing the fields, hunting, fishing, restricting their access to the forests to gather pharmacopoeia without finding another alternative for their survival would be considered in their eyes as an encroachment on the development of their entities

4.4 Demand from local communities Felt needs

Among the demands of the local communities living around the Yangambi Biosphere Reserve, some are calling for the rehabilitation of roads to facilitate the movement of populations and their property because they have recorded the loss of human lives in recent decades, moreover, they regret that the great activity of Precop27 which brought together the world's scientists in the city of Yangambi should be an opportunity to rehabilitate this road but no one has alluded to it. Some are calling for the rehabilitation and construction of health facilities because the populations of this area make long journeys of more than 5 or even 10km to find a health

facility. Others demand the construction and rehabilitation of schools because in several villages the schools are in a very advanced state of disrepair, which requires rehabilitation to allow the children of these corners to study well like the children of other skies and also the construction of new schools so that the children cannot perform long strangers. The establishment of a framework for exchange is requested by our respondents to allow these conservation structures to know the demands of local communities and to allow them to act in accordance with their expectations. Another group is calling for the support of conservation structures in agroforestry, livestock and fish farming to facilitate food management.

In addition to his demands, the representative of the intellectual elite of the local community living around the Yangambi Biosphere Reserve claims food security because the main threat of this forest is related to food. Since local communities face economic hardship, which contributes to the deterioration of the living conditions of the local population, this leads to the excessive exploitation of forest resources. Today, this population lives from subsistence agriculture practiced by slash-and-burn abatis, charcoal making, small-scale livestock farming and the collection of non-timber forest products, some of which have recently aroused a growing interest in the consumption of local populations

4.5 Advocacy of local communities for development

Our respondents demand the signing of a set of specifications between the local community and the conservation structures to clearly define what they can expect from them; Others demand a permanent framework of exchange to allow the local community to know what the conservation structures think and also to allow the conservation structures to know what the local communities think, the creation of jobs for the communities living around the biosphere reserve are demanded by the population because without a profitable job they will always resort to the exploitation of their forest and finally others demand the initiation of Development project to bring local communities together in a different way

4.6 Existence of a framework for exchange between conservation structures and the local community

As far as the framework of exchange is concerned, the majority of our respondents confirm that there is no permanent framework for exchange between the conservation structures and the local communities living around the Yangambi Biosphere Reserve. The conservation structures act according to their wishes and not the will of the local community because they do not even know what the local communities think because there is no permanent framework for exchange, on the other hand another group of our respondents confirm the existence of a framework for exchange but not permanent. In these exchanges, not everyone can access except the representatives of the entities (village chief, group leader, opinion leaders including the sector chief) since there is no permanent framework, the local communities living around the Yangambi Biosphere Reserve influence the dialogue between the two parties through acts of vandalism that cannot necessarily be in favor of the conservation structures.

Since the year 2020, the conservation structures around the Yangambi Biosphere Reserve have set themselves the goal of establishing an interconnection with local communities to properly maintain biodiversity and sustainable forest management around the Yangambi Biosphere Reserve. Based on this idea, the local communities propose that they be able to have at least

one meeting per quarter to avoid misunderstandings. This strategy is strewn with challenges to be met, namely

- improve the participation of local communities in conservation management,
- safeguard the representative samples of each village because in most cases, some villages are excluded in the various meetings according to the testimonies received in the field,
- Promote the participation of traditional chiefs in the Strategic Conservation Committee

In relation to this point, during the focus group organized in the village of Yaselia, capital of the Turumbu sector, in front of the head of the sector Augustin BILAMBO LOKONDO on 6/5/2024, the participants reiterated these words: "Since we have been in this village, no conservation organization has come to ask us about our problems or our demands. With the restrictions that these structures impose on us, we are suffering, only God helps us with his grace, we are not involved in problems related to the forest. Those who participate are not advocating for the cause of the local community, but rather for their personal interests.

4.7 Climate of relationship between local communities and conservation structures

the majority of our respondents confirm that the relations between the conservation structures and the local communities are poor because they do not consider the local communities as the beneficiaries of this land although it is under the responsibility of the State, according to them, the restrictions imposed by these structures do not promote social well-being and the emergence of local communities living around the Yangambi Biosphere Reserve, Others, on the other hand, confirm that relations are good because these conservation structures have a consideration for the local communities, they organize workshops and exchanges with the representatives of each structure (village chief, group leader, sector chief including opinion leaders) to immerse themselves in the demands of local communications. The last group gave other answers by saying that the establishment of this structure is a new Western colonization to separate it from their forests

5.0 CONCLUSION AND SUGGESTIONS

This study deals with the conservation imperative and local development issues around the Yangambi Biosphere Reserve. Through this study we understood that the development of around the Yangambi Biosphere Reserve is a real problem because it is noticeable by their housing, the quality of hospitals and schools and it concerns all the strata of the population located in the axis that goes from Yelenge through the city of Yangambi to Lilanda village.

The enthusiasm with which the local communities welcomed the news of the Yangambi Biosphere Reserve proved that they had an idea that this organization should generate development and employment in the area, but they found the opposite. We used Robert King Merton's functional analysis to test our research hypotheses. The interview was very useful for us in gathering the opinions of the local communities.

At the end of this study, which is in line with the conservation imperative and development issues of local communities, we suggest the following:

- That the Yangambi Biosphere Reserve makes an effort to meet the basic needs of local communities, as they have only the forest as a source of life
- Establish a permanent framework for exchange to find out the demands of local communities
- Sign a set of specifications with the local communities to give the latter the hope of reaping dividends from their forests, which is considered ancestral wealth because a community without forests is a community without foundation, because the determining elements of a community in Africa are, among other things, forests and waterways.

BIBLIOGRAPHICAL REFERENCE

PRIOR. M, (1984) environmental law, Dalloz,

KALPERS. J (1997) monitoring: instructions for use "action for continuous monitoring in the MIKENO sector" Virunga National Park,

Pannequin.G and Mocilnikar A.T, (2011) the Atlas of Sustainable and Responsible Development, Organization Edition,

REMOND-GOUILLOUD. M, (1980) du droit de destroy: essai sur le droit de l'environnement, PUF,

ESISO ASIA AMANI; F 2022 manual of research methodology in the social sciences, Paris le Harmattan