PARTIAL REPORT OF ACTIVITIES CARRIED OUT IN THE MASAKO FOREST RESERVE

PROJECT ID: 27590-1

By

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1. INTRODUCTION

As part of *Project ID: 27590-1*, funded by **Rufford Foundation**, we visited the Masako Forest Reserve station, located 15 km from Kisangani City in accordance with the project's terms.

Indeed, two field missions have already been carried out. The first was essentially based on the contact and integration of the local community into the project philosophy. This mission was carried out from 28 to 29 April 2019. The objective of this approach was to gather the various points of view and thoughts of the local community regarding the destruction of the reserve; and on the other hand, to allow us to know that it is the sustainable solution or alternative they propose in order not to continue to destroy the forest and thereby preserve the Masako reserve.

The second mission was scientific. It was devoted to the less invasive inventory of amphibians in the Masako Reserve. It had been carried out from 01 to 10 May 2019.

Figure (1). Purchase of petrol for the departure in Masako

2. FIELD METHODOLOGY

2.1. Investigation

On the one hand, the village chief, the most senior (graduate in sociology) had been personally interviewed. In addition, the inhabitants in 2 separate groups (focus groups)

composed of more or less 10 to 15 people, men and women had been interviewed on the other hand. To do this, a pre-established questionnaire of 30 questions was used for this purpose.

2.2. Amphibian inventory

Amphibians were caught according to the methodology described in Project ID: 27590-1.

Figures (2 & 3). Amphibian Capture Sites

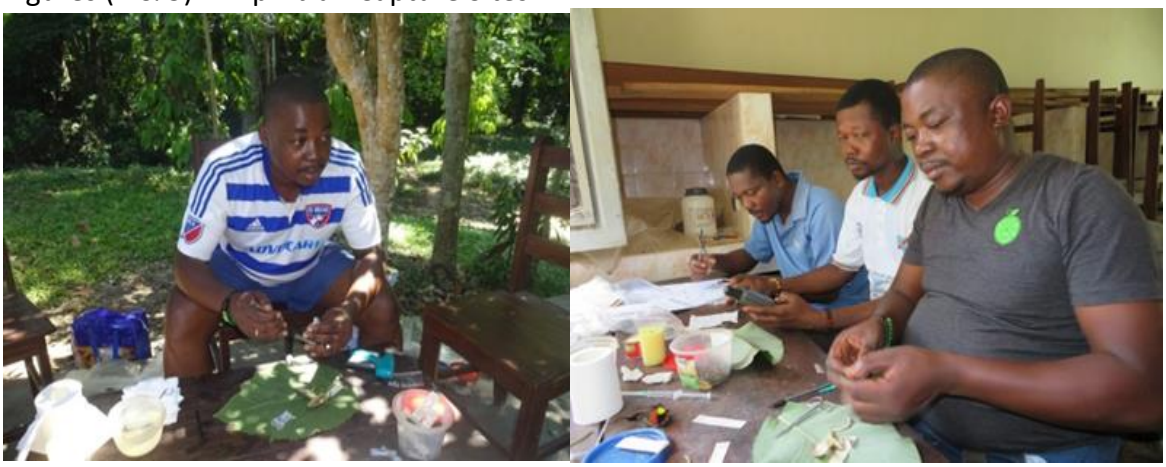

Figure (4). Amphibian treatment in the field laboratory

Figure (5). Release of an amphibian into the wild (in its capture site)

3. PRELIMINARY RESULTS

3.1. Views and proposals collected from the local community on the destruction of the Masako forest reserve

3.1.1. Summary of responses to questions submitted to the local community

The age of the subjects (male and female) interviewed ranged from 18 to 71 years of age. Only one person had a degree in sociology (village chief). The others had the majority at the primary and secondary level. The main activity is itinerant burning agriculture. Most of the interviewees were married with an estimated overall monthly income of about US$50. The average household size is 6 people. The lifespan of subjects surveyed in Masako ranged from 10 to 71 years.

All participants love the Masako forest. But they regret that this forest was disappearing because they lost the NTFP non-timber forest products from which they derived a lot of benefits (i.e. caterpillars, white grubs, snails, mushrooms, Marantaceae leaves that they used for house roofs, various fruits (cola nuts and other seeds), rattans for making chairs and other household items, etc.).

In addition, the local community of the Masako reserve is open to the restoration of the Masako reserve. As for the crucial personalized question of who destroyed the forest? 89% of the subjects replied that it is mainly the heads of environmental services from 2014 onwards; and 21% acknowledged the main role of environmental managers and forest operators from Kisangani.

100% of the interviewees felt satisfied if the Masako reserve were rehabilitated because they would find the same benefits in cash or in kind that they received from researchers from Kisangani and others from foreign countries, particularly the schooling of their children. Now they are having enormous difficulty meeting this need.

3.1.2. Immediate consequences observed following the destruction of the Masako reserve

In colonial times, after every 15 km of the city, a green space was reserved which served as a kind of "lungs" for regulating the temperature for the city. But public servants who are aged and very poorly paid have engaged in the illegal cutting and sale of timber and for the time being, the activity has become more important and uncontrollable.

3.2. List of direct consequences observed in the Masako reserve:

- Tearing up of the Masako spring (potential source of waterborne diseases)
- Direct loss of employment related to the Masako reserve
- Missing non-timber forest products (mushrooms, caterpillars, snails, fruits, etc.) and its biodiversity (turtles, bushpigs, birds, snake, etc.). Source of missing animal protein (danger of malnutrition and undernourishment for children and adults)
- Appearance of locusts as crop pests (crop losses)
- Disappearance of bees (delay in flowering / fruiting of fruit trees)

- Disruption of the agricultural calendar (loss of vegetation cover)
- Very high heat in Masako than before

Figure (6). Interview with the village chief Masako

3.3**.** Amphibian inventory

In this partial report, we just present the list of species. In the final report, we will detail as much as possible. 6 sites had been sampled: Amakasapoko (N00.61064°; E025.26188°, 416m), Etangs Alois (N00.61235°; E025.26378°, 414m), Amokpiambombi (N00.46404°; E025.29108°, 394m), Pond Pk 16 (N00.61077°; E025.27325°, 449m), (N00.59729°; E025.26673°, 440m), Ponds PK 13 (N00.59852°; E025.26009°, 401m).

Table (1). List of species caught in Masako

N°	Espèces
1	*Amnirana albolabris*
2	*Afrixalus quadrivittatus*
3	*Crypthylax greshoffii*
4	*Leptopelis calcaratus*
5	*Ptychadena aequiplicata*
6	*Xenopus pygmaeus*
7	*Hoplobatrachus occipitalis*

8	*Hyperolius tuberculatus*
9	*Sclerophrys regularis*
10	*Sclerophrys pusilla*
11	*Ptychadena mascareniensis*
12	*Arthroleptis adelphus*
13	*Arthroleptis sylvaticus*
14	*Sclerophrys gracilipes*
15	*Phrynobatrachus latifrons*
16	*Ptychadena christyi*
17	*Aubria masako*
18	*Leptopelis notatus*
19	*Hyperolius cinnamomeoventris*
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Table (1) indicates that 19 species of amphibians had been counted for capture session.

3.3.1. Presentation of the few amphibian species caught at Masako station

From left to right, Figure (7 & 8): *Ptychadena aequiplicata* (Ptychadenidae) and *Xenopus pygmaeus* (Pipidae)

From left to right, Figure (9 & 10): *Leptopelis calcaratus* and *Cryptothylax greshoffii*

From left to right, Figure (11 & 12): *Arthrloleptis adelphus* and *Aubria masako*

4. RECOMMENDATIONS

After the interview, the local community is concerned about the destruction of the reserve's space (1 football field every day lost). To save the Masako reserve, the inhabitants propose:

- Quickly propose alternative activities that will not allow them to go into the forest to destroy it, namely fish ponds, small pig farming, poultry, forestry (banana plantation, pineapple fields, etc.)
- Remove the occupants from the Masako reserve (decision of government authorities)
- Carefully reforest the reserve in stages (emergency)
- Monitor the eviction of illegal occupants in the Masako reserve, whose ¾ came from Kisangani, and make them aware that they should not reoffend again
- Map in a participatory way and limit the boundaries of the Reserve in order to secure its surface area, whose starting area was 2,105 ha.
- Reclaim 2,105 ha of the reserve to allow the arrival of researchers with an economic impact on the local community.

APPENDICES


Figures (13 & 14): Masako station and dry Masako source


Figures (15 & 16): Laboratory work in the field with my team and the dormitory at Masako station


Figure (17 & 18). The front and back view of Masako station


Figure (19 & 20). The stove and hygienic installation of the Masako station

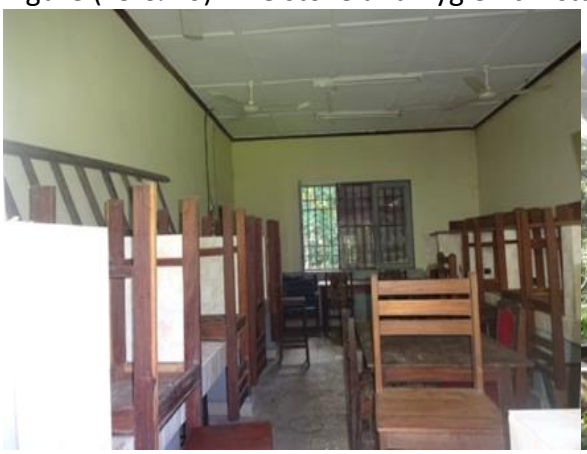


Figure (21 & 22). The laboratory and water storage tanks at Masako station

Figure (23). The team of researchers at the laboratory in Masako station

Figure (24). The amphibian capture team during night capture

Figure (25). Franck Masudi and his esteemed night guide (Papa Marcellius)

Figure (26). Motorcycle movements on the ground when making contact with the local community

Figure (27). Corn fields in Masako Forest Reserve