

Project Update: August 2009

Summary

The understanding of the impact of forest fragmentation on forest hornbills of Uganda is in progress. This report is an update of the activities in the previous month's period following the timeframe. The main achievements include: completion of biodiversity data collection, 9 local youth being trained about birds and hornbills in particular, and socioeconomic data under collection. We plan to complete community workshops, completion of biological and socio-economic data analysis and linkages, scientific draft papers progress, talk shows, project posters for community use, project report draft, monitoring and evaluation and lastly the identification of biological diversity indicators with which to monitor in future

1. Project background

This is a new initiative, building on a study on both farm and forest ecosystems of central Uganda. Four-five years ago, an intensive research was conducted by British Trust for Ornithology (BTO) and Makerere University Institute of Environment and Natural Resources. The study assessed the conservation of biodiversity in modernized farmed landscape of coffee-banana in the Lake Victoria region. The project selected cultivated fields, fallows in relation to the human population from low to high intensities close to forested areas. The project studied birds, tree diversity and insects in the farmland and nearby forests. However, the current project considers addressing the *"Understanding the impact of forest fragmentation on forest hornbills of Uganda"* zeroing down to the individual species. This project has adopted a similar inter-disciplinary approach and used some sites in the BTO project. It has significantly extended the themes in the previous work by specifically targeting some individual avifaunal species (the Black and White Casqued Hornbill, Crowned Hornbill and Pied Hornbill).

It will undertake economic analyses of sustainable rural livelihood options in the project area, including biodiversity assessments made of fragmented forest systems. Data collected in this project will be related to these analyses.

This work is in the process of data analysis to identify sustainable conservation interventions of forest hornbills, and consider land use options for communities living in adjacent forest project areas in Uganda, by assessing linkages between socio-cultural, economic and environmental impacts of different approaches to forests like exploitation, management and conservation. The results will enable impacts of forest fragmentation to be identified and monitored. Ultimately, the project will improve the understanding of forest systems to the extent that recommendations will be made for strategies that support forest hornbills at the same time as supporting rural livelihoods.

This will be achieved by documenting forest hornbills within a range of forest systems differing in structure and degree of fragmentation/isolation. Survey data will determine the distribution of hornbills, identify potential indicators and establish baseline data with which to monitor

future changes in fragmented forest systems. In conjunction with socio-economic data, this information will be used to develop conservation approaches that integrate sustainable forest production with biodiversity conservation.

Ultimately, the project will help enable fragmented ecosystems to be developed and conserve biodiversity and supporting rural livelihoods. The research and implementation will be based on the success of the project.

2. Project activities and the outputs

The project plans and activities, including:

- capacity building of community members, especially youth
- Collection of baseline data of avifauna in fragmented forest systems, with particular reference to the identification of indicators
- Identification of best land use management practice regarding sustainable conservation of hornbills
- Dissemination of best management of fragmented forests to organizations and local communities.

Progress made

By the end of this project the aim was to have identified the distribution of the three selected hornbill species in the fragmented forests and provide the sustainable interventions for conservation. Of the 22 project sites each site was to be represented by one youth to be trained about hornbills. We however, have managed to train a total of 9 local community members in the whole project area. These aims have been to some degree achieved, though we have slightly been behind in the field of socio-economic data collection schedule due to some constraints in locating respondents and timing. This however will not compromise the data collection exercise, as some modifications in field work schedules have been made to address the earlier existing constraints.

A total of five field visits for social surveys have been made and covered 14 of the 22 project sites. The field team has held extended discussions with local leaders (Local Council Chairpersons), area elders and individual farmers, first of all to introduce the project to the local leadership and secure their 'buy-in' and also to obtain their permission and support to organize the community workshops. Formal community workshops are yet to be organized to share more about the project and gather more information as well.

3. Challenges

During the collection of socio-economic data we have faced some significant challenges.

- Local communities worry about giving out information expecting it may turn out to be a problem to them in future especially with regard to accessing forest products

- It hasn't been all easy to achieve a total number of responds per site as earlier planned because of the widely scattered nature of the households.
- Forest officials have expressed fears about the encroachment and degradation of the forests in the forestry sector

4. Work plan for the next reporting period

- Completion of community workshops
- Completion of biological and socio-economic data analysis and linkages
- Scientific draft papers progress
- Talk shows
- Project posters for community use
- Project report draft
- Monitoring and evaluation
- Identification of biological diversity indicators with which to monitor in future

5. Collaboration

Rufford-PROBICOU project has been keen at strengthening and developing collaborations between local institutions partners i.e. National Biodiversity Data Bank of Makerere University Institute of Environment and Natural Resources and the Dept of Botany requested us to allow undergraduate student interns to learn the application of research methods.

6. Biodiversity economic value linkages

We have persisted in tracking the record of causes of forest fragmentation; the picture below can reveal. During our field biological diversity assessment, we observed that fragmentation is a matter that requires to be scaled up for more understanding by the conservationists. The causes are entirely driven by livelihood dependency. We further noticed that urbanization is a contributing factor to fragmentation for our sites close to urban areas such as Ziika forest.

7. Methods and next steps

Birds

We plotted 10 points separated by 200m from each other within 1-km square; Hornbills along with other birds were surveyed using Point Counts (PCs). 10 minutes long, at each point and each site was surveyed over two times in the past three months of the fieldwork.

Social economic

We have concentrated on using the interview guide for local communities and our next step is to collect quantitative information from focus group discussions (FGDs) that will be organized under community workshops.

