

FINAL REPORT

KIMBOZA CONSERVATION PROJECT

Title: The Conservation Values and Status of Threatened Kimboza Forest Reserve, Tanzania.

FUNDED BY:

**The Rufford Small Grants For International Nature Conservation
(RSG Continuation Grant for 2003/2004)**

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Background

Kimboza Forest Reserve is a Tropical forest of exceptional biological value, containing several endemic taxa and species such as *Rhodogranaphalon schumanianum*, *Chloropora exeisa* and *Kyaka nyasika*, which have great biogeographical interest. However, species loss has been an insidious process and frequently not observable. Population sizes for the smaller endemic plant species, the herbs, shrubs, and small trees would appear adequate but the population sizes of larger trees such as *Crynometra ssp* and *Tessmania ssp* would not be adequate for the long term survival due to human activities which was going on in the Reserve.

Kimboza Forest reserve has valuable contribution to biological and gene pool conservation. It is well known that the forest reserve as a catchment forest has 13 forest endemic species, which make it the richest lowland high forest in East Africa. Together with other mountain ranges of Morogoro region form the part of Eastern Highlands of Tanzania with about 200 endemic species.

The Kimboza conservation project has involved the community in reducing the existed rate of forest cutting and increased land use pressure accompanied with hunting in the forest, which was sufficient to cause some level of extinction.

The focuses of the first year of the project were research in ecology, status of the threatened forest and endemic species, environmental education and initiation youth conservation clubs in schools of villages surrounding Kimboza forest reserve. The team provided a quantitative assessment of conservation significance identified resource use and human pressures and gave recommendations for future biodiversity and natural resource management.

The second year RSG continuation grant enabled the project to continue with environmental education, promotion of youth conservation clubs in village schools and continued with community reforestation programmes. The project also established bee keeping as alternative but significant source of income to villagers. The conservation team members worked with bee keeping extension officers in disseminating the knowledge of bee keeping to the villagers. The project continued to encourage local people at forest edges to take control of resources management and responsibility of safe guarding the forest reserve.

Project's Objectives were as follows:

- ◆ Environmental education programmes in forest edge villages and in villages' schools surrounding Kimboza forest reserve.
- ◆ Capacity building for local people and to increase conservation awareness by conducting seminars to villagers particularly village conservation committees and village leaders for community reforestation programmes, monitoring and protection of the forest reserve.
- ◆ To continue with community reforestation programmes and promote interaction with local communities in the long term by enabling villagers take control of the natural resource management.

- ◆ Promotion of youth conservation clubs in villages' schools nearby the forest reserve and villages conservation committees.
- ◆ To establish bee keeping as alternative source of income to Kimboza forest edge villages.

Progress in attaining these objectives

- **Environmental education**

The project team members continued to provide environmental education both in schools and to the following villages Kibangile, Changa, Mwarazi and Uponda which are at the edges of Kimboza forest reserve. We used T-shirts, leaflets and posters written in Swahili language (the national language) and distribute them in villages and village schools. Through discussions with Villages Executive Officers we planned and managed to have an environmental day after every three months. Villagers eagerly awaited each environmental day as it was also marked with invited fine performing arts groups of villagers with their themes on conservation. The team members and community conservation committees together with forest field officers used these environmental days in each village with specific focuses such as emphasizing preparation of nurseries for seedlings preparation, transplanting seedlings, or alternatives to income generation such as bee keeping.

Environmental education programmes have helped in changing of local people attitudes towards the forest reserve. There was a tendency for local people to view the forest reserve as reservoir of good cultivation but now the reserve is regarded to many villagers as area of precious heritage in need of conservation for the future generation. The programme helped also to educate villagers at the forest edge forest management and sustainable utilization of resources.

- **Capacity building for local people and conservation awareness rising**

The team continued training village conservation committees and village leaders in tree nursery preparation, and community reforestation programme. Training was also done on how to undertake routine field surveys of the forest to prevent agricultural encroachments. Village conservation committees continued to be strengthened over the time in each village for monitoring the conservation work aiming to increase the capacity of local community in the sustainable management of their natural resources.

As impact of conservation awareness, illegal charcoal burning in the forest has significantly decreased together with activities such as logging, pit sawing and hunting of animals due to the routine patrol of the forest by village's forest scouts under the leadership of village's conservation committees. Those used to in the forest reserve for illegal activities are now very much afraid of village's forest scouts who patrol the forest as compared to the control that was being provided by the forest extension officers. They say it would be better to be caught by forest field officers than the member of forest scout of the village's conservation committees.

Villages surrounding the forest reserve have divided the whole forest in zones for conservation and protection. Four zones for conservation were obtained and the boundaries set for those zones do not coincide with administration borders.

Another important impact of the conservation awareness achieved is the planting of indigenous trees in their agricultural fields to some villagers. Villagers responded positively to the environmental education particularly as villagers were made aware about the rich in biodiversity of Kimboza forest reserve they showed keen interest to be involved in conservation of the forest.

- **Reforestation programme**

Nurseries for seedlings rising were initiated in two villages Matombo and Kibangile also in village schools. Community reforestation progress has been good with planting more than 60 hectares and over 20,000 seedlings of indigenous plants being raised and transplanted in March to May during the rainy season. Youth conservation clubs from schools and conservation committees participated in seedlings planting in forest areas which deforestation was already at large due to logging, pole cutting and agricultural activities. Most of planted indigenous trees were such as *Kyaya nyasika* and *Milicia excelsa*, plant species which have severely depleted in Kimboza Forest. In Matombo and Kibangile villages seedlings have been planted in the area outside the reserve boundary set aside as conservation area and to the areas, which were heavily encroached by agriculture.

The reforestation programme has aimed to enhance sustainable use and management of locally adapted endemic and exotic tree species as well as the overall nature conservation and improvement of livelihood of local people in all villages surrounding the reserve. This was achieved through identification of existing trees and collection of seeds and establishment of nurseries with aid of local forest field officers at Kimboza.

- **Youth Conservation clubs in schools and villages conservation committees.**

Youth conservation clubs increased to 83 in local primary schools and in secondary schools in villages surrounding the forest reserve. As these youth conservation clubs learned about the nature and importance of conservation they showed their willingness and motives for nature conservation, this was true through their continued participation in seedling preparation in school nurseries and conservation clubs seedling nurseries. These clubs have participated in seedling planting for indigenous plants during the rainy season from March to May. We also initiated inter clubs essay writing competition in schools on environmental conservation issues, the increased number of conservation youth clubs have contributed to increase motivation of youths for nature conservation in this area. The Ministry of Education and Culture through its environmental education office has been giving various supports to the environmental education programmes which we conducted in schools.

As a continued process for empowerment of local communities to participate in conservation, establishment village's conservation committees were done. Village chairman and the villages' representatives from each ten-cell leadership head the committees. The villagers have never before had the occasion to sit at the same table with the forest field officers and discuss local

issues concerned with conservation, this has raised their self-esteem and contributed to building the self-confidence of the villagers. The conservation committees involve the preparation of community rules for conservation and prescribe sanctions for violating these rules.

- **Bee keeping**

The project team members established honey harvesting as an alternative but significant source of income with minimal ecological impact. The socio-economic survey made by the first project it was revealed that bee keeping as alternative means of income was viable. The establishment of bee keeping in forest and local farms as alternative source of income has helped to improve livelihoods of villagers so that they may not continue exploiting the forest reserve as they entirely depended to earn their income. The honey harvested has its market at Morogoro, the town nearby the reserve, or gets its market at Dar es Salaam.

The Kimboza Conservation project team members, together with two bee keeping extension officers, have worked hard in disseminating the knowledge of bee keeping to villages surrounding the forest reserve. The bee keeping field officers offered training in beehive preparations. Villagers warmly welcomed this initiative as a source of income, a well organized groups of six to eight people were formed as group of bee keeping enterprise. There were also some people who preferred not to join in a group but to have an individual enterprise. Efforts are under way to increase the number of beehives available to well-organized groups of villagers.

The project team worked very closely with the Ministry of Natural Resources and Tourism, through Forestry and Bee keeping Department having their forest field officer at Kimboza. The team has continued to work with Joint Environmental Management Action (JEMA) an NGO based at the University of Dar es salaam. Also with National Environmental Management Council (NEMC) to ensure maximum benefit for conservation of the forest reserve.

Challenges faced during the project

1. The idea of setting aside some of the villages land outside the forest reserve as conservation area was not well received by some villages authorities because of fear that when communities annex land for conservation activities, this land will be taken by the government. The conservation project has continued to convince villages' authorities through participatory approaches to initiate conservation forests outside forest boundary in an area set-aside as conservation area. In this area villagers could get fuel wood and building poles extraction and not in the forest reserve, this will reduce the likely to be long term threat to the forest as it is hard to control these illegal activities compared to the agricultural encroachment. Discussion involving representatives of villagers has continued so that they may understand the long-term benefits of setting aside some of their land as conservation area.

2. Although the establishment of bee keeping as alternative source of income was well accepted but most of villagers were not willing to work as a group enterprise, they preferred every person to make it as a personal enterprise. To over come this we continued discussion so that the villagers can see the benefit of being in-groups enterprise.

3. Poorly defined boundaries between the forest reserve and the surrounding land has been also a challenge. This has been discussed with forest field officers at Kimboza and villages' conservation committees so that the revision of the forest reserve boundaries can be clearly defined or marked for better management and protection of the area.

Budget justification

Funds Secured (Particulars)	Year 2003/2004 £
RSG Continuation Grant	5000
JEMA and Institutional contributions	1262
Project members personal contributions	400
T – shirt sales (for conservation promotion)	430
TOTAL	7092
Expenditure	
Local travel	950
Accommodation	460
Food	430
Insurance	650
Medical / health & safety	450
Counterpart wages	720
Field equipment (eg. Binoculars, Field guides) and bee keeping equipment.	1350
Education materials (eg. leaflet posters, display boards) and 3 workshops	1200
Film / photography	280
Publications / output	510
TOTAL	7000
TOTAL BALANCE	92

Next plans for further work in the study area / a way forward

◆ Extensive environmental education programmes are to be established in schools and development of environmental education video to be used in schools adjacent to Kimboza forest reserve.

◆ To continue with bee keeping as income-generating activities initiated by villagers to improve livelihoods. The team will continue to work with forest and bee keeping field officers at Kimboza in developing the bee-keeping project. The conservation team will empower the local community through provision of information and awareness to help the community attach value to the forest and take conservation action for long-term survival of the local forests.

- ◆ To establish Eco-tourism as villages based income-generating activity in the area as Kimboza forest reserve has good sites and exceptionally rich in Biodiversity together with being adjacent to Ruvu and Kwamanyani forest reserves.
- ◆ Continue with capacity building to local community through workshops on community reforestation activities and sustainable agricultural techniques. There are also plans to introduce more efficient charcoal kilns and fuel-efficient stoves with minimal impact on environment and reducing wood fuel consumption.
- ◆ This project will expand the conservation programme to cover other forest reserves of which are in the region and adjacent to Kimboza forest reserve, these are Ruvu and Kwamanyani forest reserves. Ruvu and Kwamanyani forest reserves have continued to face threats due to continued human pressures with little conservation efforts. A team proposes to undertake a project that will assess the current status of these forest reserves and community attitudes towards conservation. The long-term goal of the project aiming to cover all these forests is to ensure that the rich Biodiversity in the area is conserved through involvement and support from the local communities.

Conclusion

The project has succeeded to encourage responsible forest practices and conservation by providing community members with environmental education and training on forest ecology and forest management. The team identified resource use and human pressures and gave recommendations for future biodiversity and natural resource management. RSG continuation grant enabled establishment of bee keeping as alternative source of income which will help to improve livelihoods of villagers who entirely depended on the forest products.

The long-term goal of the project is to ensure that the rich biodiversity in Kimboza forest reserve is sustainably managed and conserved through involvement and support from the local communities. All these significant progresses in conservation of threatened Kimboza forest reserve could not have been possible without financial support from the Rufford Maurice Laing Foundation through Rufford Small Grants facility as a first RSG and RSG continuation grant.