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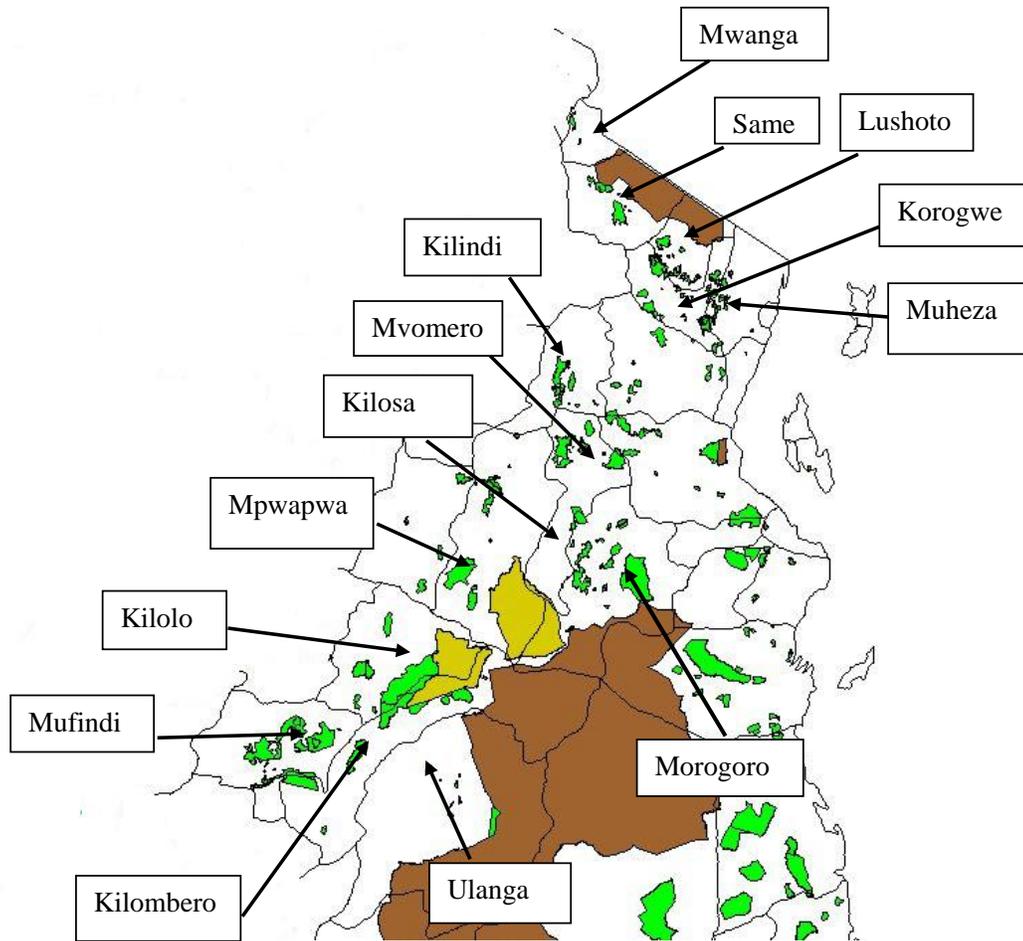
**PARTICIPATORY FOREST MANAGEMENT FOR SUSTAINABLE
COMMUNITY DEVELOPMENT:
LESSONS LEARNT IN CONSERVATION AND MANAGEMENT OF
UDZUNGWA MOUNTAIN FORESTS, IRINGA, TANZANIA**

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The Eastern Arc Mountain and Coastal Forests in Tanzania



ABSTRACT

Tanzania mainland is endowed with natural forests and woodlands distributed throughout the country. Approximately 13 million ha. of these habitats are legally protected and managed as production or protection forest reserves (FRs). Approximate 4% of the protected areas are part of the internationally recognised Eastern Arc and Coastal Forest Biodiversity Hotspot, with about 500,000 ha Eastern Arc Mountain Forests and about 75,000 ha Coastal Forests.

This paper presents the experiences of implementing Participatory Forest Management in montane evergreen forests in the Udzungwa Mountains, Iringa District. The Udzungwa Mountains is a component of the globally important Eastern Arc biodiversity hotspot. The Eastern Arc Mountain Forests stretches from southern Kenya to the Udzungwa Mountains in south central Tanzania. The hotspot is today considered among the five most species rich areas in the world in terms of number of endemic species in relation to area of forest. At least 85 vertebrate species are strictly endemic to these mountains; 17 species of birds, 8 species of mammals, 27 species of reptiles, and 33 species of amphibians. Data for plants are not fully compiled, but at least 1,500 endemic plants are found, 68 of these being tree species, and several hundred of these plants may be threatened. The majority of the Eastern Arc endemic species are closed-forest specialists, with a few confined to more open habitats such as woodland, grassland, marshes and rocky areas. Site prioritisation shows that the Udzungwas, Ulugurus and East Usambaras are most important for endemic vertebrates and plants.

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The montane forests in the Udzungwa Mountains provide a wide range of ecosystem services to the local communities, including medicinal plants, honey, vegetables, thatch grasses, construction poles and bushmeat for their subsistence. Wood extraction from forest reserves is not allowed and very limited as alternative wood sources are available in adjacent natural woodlands or planted woodlots. The main threat to conservation in the area today is intensive illegal hunting.

In addition to the biodiversity value, the forests are of invaluable importance to Tanzania's water supply. Sustainable forest management therefore secure valuable eco-system services, not only to local communities, but also nationally in terms of biodiversity preservation, electricity production, urban water supply and agricultural production. Water from the Udzungwa Mountains is source of approximately 64% of Tanzania's total electricity production.

Failure to manage the forest estate in a traditional centrally controlled system led to a decentralisation of the forest sector and Participatory Forest Management (PFM) has been developed as a strategy to achieve sustainable forest management while improving the livelihoods of the rural people depending on forest resources.

The new Tanzanian Forest Policy (URT 1998) and Forest Act (URT 2002) allow devolution of ownership of and management responsibilities to forest adjacent communities. Based on the new legislation and supported by Danida, the Government of Tanzania from 1999 to 2003 conducted a pilot project called MEMA (Sustainable Use of Natural Resources), to develop, test and implement the PFM concept in the Udzungwa Mountains and adjacent woodlands. Joint management agreements have been inaugurated and the forests are today managed jointly by locally elected Village Natural Resource Committees and District Forest Authorities.

The management agreements describe rights and responsibilities related to management and include a list of ecosystem services available to local communities together with resource specific use regulations. The agreements formally hand over the rights to collect, retain and use natural resource revenue generated from local ecosystem services. The generated revenue is spend on compensating committee members and providing village benefits like new school buildings/school desks, water pipe, etc. to the local community.

A community-based biodiversity monitoring system has been developed as a key tool for Village Natural Resource Committees to ensure sustainable use of forest resources. The system is developed to suit the needs and capacities of local communities, and, thus, rather than measuring biodiversity, the monitoring is focused on resource extraction and disturbance. Formally, the system started with 23 villages that were under the support of DANIDA (1999 – 2003). Today the system is being applied in 60 villages under PFM in Iringa apart from contributing significantly in developing the national guidelines for resource monitoring.

The VNRC members of each village spends approximately 300 man-days annually on managing and monitoring the forests. Data collected one year after implementation show a high commitment level and indicate that the monitoring scheme provides committees with the relevant information needed to suggest appropriate management interventions. Information from monthly monitoring forms submitted to the district natural resources office by the communities, are being incorporated into the village management plans currently under final review. Compensation allowances for attending VNRC activities in woodland and montane forest areas range from USD 0-1.75 per day, the average being below USD 1.00.

In the montane forest areas, national and global interest to preserve catchment values (i.e. electricity production, agriculture, fishing and livelihoods) and biodiversity means that the government has banned wood resource extraction. Because of this, opportunities to provide economic incentives for montane forest managers through direct utilisation of the resource are limited and it remains to be seen whether other non-economic incentives can sustain long-term commitment in these biodiversity rich areas.

Another problem for successful implementation of PFM is that it appears that most technical field staff spend most of their time in towns lobbying for activities that provide per diems or in other ways increase their income rather than being in the villages exercising the necessary support.

A central issue in the PFM debate, is that communities are given responsibility of government (stewardship of a national resource) in exchange for ecosystem services – but in reality there are very few benefits in montane forests to share with those communities in exchange for the costs incurred and the support from the authorities is insufficient to ensure sustainability of the management and, thus, also of the resource use.

As a consequence PFM can probably not work in the longer term unless additional benefits to swing the costs/benefits ratio can be identified and made to work. Payments for ecosystem services (in this instance water and biodiversity) would represent an opportunity to increase the benefits and moral support for effective management. At present, however, there is no political will or international pressure to implement fair payments for managing nationally (and globally) important ecosystem services. The future of the unique Eastern Arc forests is therefore uncertain.