



Access to Joint Forest Management Resources: Challenges and Opportunities to Local Communities. A case of Udzungwa Forest Reserve

Helene S. Francis, Gerald S. Temu and Emmanuel Hauli*

Institute of Rural Development Planning, P.O. Box 138, Dodoma

*Corresponding author email: hfrancis@irdp.ac.tz

Abstract

The main objective of this paper is to examine opportunities and challenges encountered by the communities surrounding Udzungwa Escarpment Forest Reserve after Joint Forest Management (JFM) program. Interview and Focus Group Discussion were used as tools for data collection. The communities have faced significant challenges in accessing JFM resources, for which there are few opportunities that community enjoy. In the past before July 2011, the local communities were allowed to enter the reserve to collect dead woods for firewood, but currently, they are strictly forbidden to do the same. It was observed further that there existed conflicts between Udzungwa Mountains National Park and local communities due to wild animals raiding farmer's crops. However, the local communities acknowledged that JFM had enabled them to have improved village dispensaries and some school classes. It is recommended that there should be a mutual relationship between the National Park Management and the local communities to enhance economic wellbeing for the communities adjacent to reserved forest.

Keywords: Joint forest management, challenges, opportunities, forest reserve



1.0 Background information

The need for conservation of forest resources and securing livelihoods of the rural communities has prompted a change from government controlled management to involvement of communities. Many developing nations of the world are pursuing some forms of forest management which involve local people (Gobeze *et al.*, 2009). Different terms are used to indicate involvement of communities in forest management. These terms include: Collaborative Forest Management (CFM), Participatory Forest Management (PFM), Decentralized Forest Management, Community Based Forest Management (CBFM) and Joint Forest Management (JFM) (Blomley and Ramadhani, 2006). This paper focuses on Joint Forest Management as it is the approach used around the Udzungwa forest reserve to enhance engagement of local communities in conservation activities. According to the Ministry of Natural Resources and Tourism (MNRT) of Tanzania, the concept of Joint Forest Management (JFM) is all about partnerships between the communities adjacent to forest and the Forest Management on the basis of mutual trust and well determined roles and responsibilities with regard to forest protection and development. In JFM, local communities and government manage the resource and share the cost equally. It takes place on land reserved for forest management such as National Forest Reserves (NFRs) and Local Government Forest Reserves (LGFRs). In the context of Tanzania, JFM operates by employing partnership between forest departments through Forestry and Beekeeping Division (FBD), Ministry of Natural Resources and Tourism (MNRT) and local communities in villages where the reserves exist. JFM has been implemented on a nationwide scale since early 1990's, covering more than 3.7 million ha of forests in 2,000 villages (Blomley and Ramadhani, 2006). The villages surrounding the Udzungwa Mountain are among the villages under JFM. However, it is difficult to generalize the JFM concept and approach in the light of variations across the nation with respect to geography, resource base, socio-economic status, cultural diversity and pressures on forests (*ibid*).

The Udzungwa mountain forest forms are part of the Eastern Arc mountains range and are of economic, social, and environmental importance. The forest constitutes important source of timber, non-timber forest products and catchment area for many rivers. These rivers are the source of hydro-electric power generation and high biodiversity and endemism (Temu, 2012). In spite of their importance, the forests were highly degraded before implementation of JFM for strengthening their protection.

Joint Forest Management (JFM) is an entry point for sustainable livelihood based approach to poverty reduction as it assures access to forest resources that provide most of the livelihood assets such as capital, social and physical assets (DFID, 1998; Amanor, 1999 and Pandey, 2005). Furthermore, Shepherd and Gill (1999) urged that for the majority of



the rural poor, forests continue to provide only a part of their capital needs, and the importance of this varies between forms of capital.

JFM provides many opportunities not only to local communities but also the government by empowering the local communities to form forest management committees that protect and maintain biodiversity (Mukherji, 2004). The approach tends to increase awareness on the importance of managing environmental resources including forest and learning experience about forest governance. Nevertheless, formation of self-help groups for social and economic increases the ability of the local community to take part in development activities (Banerjee, 2004; Hussain and Bhattacharya, 2004; Sharma, 2004).

In spite of the opportunities of JFM, there are many challenges associated with it. Such challenges are weak local institutions, non-promulgation of the new forest act, lack of resource base and low participation of JFM activities by the local communities. In light of this, there has been loss of interest in JFM activities by the community, low education status and capacity among the local community, political patronage and lack of political will by local leaders (Bwalya, 2007). Also, resistance to change by the local communities as well as forest officers poses a formidable challenge to success of JFM (Iddi, 2009). Moreover, there is no clear legal mechanism that provides the basis for costs as well as benefits sharing between the government and participating communities (Blomley and Iddi, 2009). It is true that JFM has resulted into restoration and regeneration of forests in Tanzania (Meshack *et al.*, 2006; FBD, 2006), given the fact that the law provides a clear mechanism for managing forest resources, for example advocacy of partnership, cost and benefit sharing through signing of contracts (Fundi, 2012; Blomley and Iddi, 2009). However, despite the weakness listed above, the challenges and opportunities that local community encounter to access Joint forest Management resources is not explicit. For instance previous research show that bush meat hunters constitute an asset poor group who have not been in position to take advantage of opportunities presented by JFM hence fail to compensate loss of access to wildlife (Nielsen, 2011). Therefore, this paper presents the challenges and opportunities local communities encounter after establishment of Joint Forest Management in the communities surrounding the Udzungwa Escapement Forest Reserves, specifically in the Mbingu and Ihangha villages.

2.0 Methodology

The study was conducted at Mbingu and Ihangha villages located in Mgeta Division in Kilombero District, Morogoro Region. The study area was selected basing on the fact that, the Joint Forest Management has been implemented for at least the past five years. Therefore, villages adjacent to the Udzungwa Mountain Forest Reserve where JFM is implemented had equal opportunity to be selected. Mbingu and Ihangha were purposely selected because of easy accessibility in terms of information reach and physical nature of



the villages.

A sample of 129 heads of households were randomly selected for data collection whereby a cross sectional study was conducted to obtain both qualitative and quantitative data. Qualitative data were obtained through in-depth interviews and Focus Group Discussions where key informants including Forest Reserve Officers, Ward and Village Executive Officer were included to discuss the issues related to Joint Forest Management and their challenges to the surrounding community. Quantitative data were therefore, analysed using SPSS version 18 software to produce descriptive statistics such as the frequencies and percentages. Qualitative data were subjected to content analysis to produce an understanding of issues related to JFM and their opportunities and challenges to the surrounding communities.

3.0 Results and Discussion

3.1 Background characteristics

Most of the respondents (68.2%) involved in this study were at the age of 35-49 years old (Table 1). There was difference between males and females involved in the study area, however, most of households were headed by males. About 41% of the respondents had primary education while few had tertiary and adult education. Furthermore, marital status of the respondents show that majority of them were married that accounted for 74.2% (Table 1).

Table 1: Background characteristics of respondents

Age	Frequency	Percentage
25-34	15	11.6
35-49	88	68.2
50-69	26	20.2
Total	129	100
Sex		
Male	74	57.4
Female	55	42.6
Total	129	100
Education level		
None	28	21.7
Primary	53	41.1
Secondary	40	31.1
Tertiary education	6	4.7
Adult education	2	1.6
Total	129	100



Marital status		
Single	16	12.4
Married	89	69.0
Widow	9	7.0
Divorced	12	9.3
Immature (< 18 years)	3	2.3
Total	129	100

3.2 Opportunities

3.2.1 Presence of socio-economic services

The existence of Joint Forest Management (JFM), has contributed to improvement of some school classes, teachers houses, dispensaries and construction of water wells. The villages were provided with construction materials and other necessary facilities as mentioned by 62% of the respondents. Similar to argument given by DFID, (1998); Amanor, (1999), that (JFM), is the entry point for sustainable livelihood based strategy to poverty reduction especially when local communities are assured access to forest resources.

3.2.2 Establishment of socio-economic groups

Joint Forest Management have contributed to development of social economic groups such as beekeeping, HIV/AIDS infection group, group for supporting disabled people, vulnerable group and the Savings and Credit Corporative Societies (SACCOS) under omen group/VICOBA. Some are self-help groups based, set up by community members. Among these are of mixed gender, for example beekeeping, often those that have been set up with outside support, especially during implementation of JFM. Focus Group Discussion reveals that, many of these social groups were formed through little awareness made by officials from JFM. Not only that but also WWF supported some groups financially in order to improve their various economic activities. However, many groups appear to be dormant; as reported during Focus Group Discussion a woman argued that: *“Many group failed to progress due to limited access to forest resources, which before the establishment of JFM these forest resources were used to generate income.”*

Despite these setbacks, Pandey (2005) was in the opinion that, JFM can only reduce poverty by increasing capacity building to strengthen formed social groups, enhancing and widening the options of socio-economies of forest-dependent local communities. As was argued by one of the respondent that: *“For us poor the social groups we developed are not effective to improve our wellbeing, these big people should teach us how to manage them*



and make a routine visit and advice, only if they want us to be in a good environment of alleviating poverty.”

3.2.3 Education/awareness

This is one of the potential assets believed to contribute to development of the community in the study area. The study revealed that, villages have persons with competencies, knowledge and personality attributes embodied in the ability to perform labour, and it increases through education and experience (Crook *et al.*, 2011). Many participants of FGDs, especially women, remarked that they did not have enough skills and capacities because of their low level of education. Where majority had been to primary school, usually few individuals (normally from the men's groups) may have had a secondary education, and amongst those, from four level and tertiary education. This is seen in the following quote from a man during focus group discussion, who argued that, *“level of education has effect on the management of forest resources in the sense that, if a person has education would use it to undertake other activities and stop relying on forest resources, where we always quarrel with game reserves. During the introduction of JFM there was awareness campaign in order to undertake such activities such as bee keeping, keeping animals and formation of groups to undertake these activities. However, our social groups could be strong but have remained poor because we have limited capital and lack of routine awareness on how to engage in beekeeping and animals' husbandry.”*

3.3 Challenges related to access to JFM resources

The study found that about 73.8% of the respondents pointed out that before implementation of JFM, members of various communities had more freedom of accessing to forest products than after implementation of JFM (Table 2). In contrast, 26.2% of the respondents declared that they are free to access forest products after the inception of JFM. However, this situation gives two scenarios, as one restricting access to forest products from the reserve provides positive impact of JFM approach on conservation of forest resources. Nevertheless, JFM may be considered as having negative impact on livelihoods of local communities as they are getting difficulties in accessing to forest products for their daily uses. Nielsen (2011) revealed that inactive hunters have experienced a negative net impact of implementation of JFM at Mbingu and Ihangha. Meshack *et al.* (2006) considers such situations to be part of cost-benefit analysis of the implementation of JFM. For more elaboration (Table 2).



Table 2: Challenges related to access to JFM resources

S/n	Variable used to determine challenges associated with JFM	Before		After	
		Frequency	Percentage	Frequency	Percentage
1	Freedom to access to forest products such as timber, poles, firewood and medicine.	79	73.8	28	26.2
2	Communities benefited, but currently TANAPA is the beneficiary	69	64.4	31	29
3	Communities were fishing freely, but now is being restricted	51	65.3	27	34.6
4	Land was adequately available, while currently is scarce	85	81	20	19
5	Firewood was easily available, but currently not easily available	78	73	29	27
6	Water streams was easily accessed in the forests as opposed to this time	62	60.8	39	38.2
7	Bush meat was available, but this time is not available	52	64.2	28	34.6

Furthermore, when the respondents were asked who benefited more on forest reserve before and after JFM. Results in Table 2 shows that about 64.4% of them indicated that TANAPA benefited from the reserve more than the communities after the inception of JFM. With regards to fishing activities as part of their livelihoods, about 65% of the respondents pointed out that in the past they had been freely fishing as opposed to current situation whereby the activity is strictly forbidden as shown 35% of the respondent. About 85% of the respondents showed that land was more available before than after inception of JFM. This is true, because villagers used to grow crops nearby forest reserve but today have been forbidden. In the implementation process of any reserve, normally, the land adjacent to the reserve has to be converted to buffer zones (Akitanda, 1992; Admassie, 1992; Chingonikaya, 2010). This is being done in most of the areas where forest reserves are under JFM. Availability of firewood was regarded as a very serious issue. This was noted in both methods of data collections namely: Focus group discussion and questionnaire survey.

About 73.8% of the villagers supported that availability of firewood was very high before implementation of JFM as compared to the time after inception of JFM. This is because during the early stages of JFM implementation, the villagers were allowed to collect dead wood for firewood, but when the reserve was converted into a National Park, the villagers



were restricted to enter the reserve. On the other hand, they have small pieces of land in such a way that cannot support them to grow trees for firewood and other crops to meet livelihoods.

Udzungwa Forest Reserve is very rich in river streams, which in the past about 61% of the villagers close to reserve had access to make use of the streams, however, under JFM, especially after July 2011, the villagers were prohibited to enter the reserve. This was pointed out by about 39% of community members who said that they were denied access to the streams emanating from the reserve. Bush meat hunting is among the livelihood activities common in forest adjacent communities. However, about 64% of the villagers pointed out that bush meat was very available before implementation of JFM as compared to after inception of JFM (36%). This is also in line with other livelihoods assets accessibility. Generally, the community members perceive that forest reserve is becoming less reliable as a support of their livelihood.

In responding to whether the introduction of JFM in Udzungwa Mountain Forest Reserve brought any improvement to livelihoods of local communities or not, about 29% of the respondents pointed out that before the inception of JFM, the life was hard, while 61.8% Total indicated that there were poor social services. Very few (8.8%) did not see any difference (Table 3). As opposed to the situation, after inception of JFM, 76% of respondents indicated that there was improvement of their livelihoods but not because of JFM rather due to improved infrastructure services and networking with other towns within the district and outside.

The presence of National Park has negative effects to the crop growers as their crops are destroyed by wild animals from the forest reserve. Following the destruction of crops; local residents were much disappointed in the sense that their concerns are not well handled but during FGD it was realized that, when it happens that livestock from local residents enter into the reserved land they are penalized to about ten thousand shillings (10,000/Tshs) according to field survey in 2014 at Mbingu ward. The research revealed that Forest Games do not respond quickly to the problems brought by villagers especially when wild animals invade their farms.

Table 3 indicates that variation of food availability is very small before and after the inception of Joint Forest Management. For example about 25.3% of the respondent said that do produce food which is used for the whole year until next farming season before inception of JFM while 22.3 % after the inception of JFM. This was observed during data collection that most of their farms remain as they have been before the establishment of JFM. The only difference is that they can no longer cultivate in the buffer zone or even in the adjacent of the forest as they used before.



Table 3: Food availability before and after inception of JFM

Duration	Food availability before JFM		Food availability after JFM	
	Frequency	Percentage	Frequency	Percentage
Year round	27	24.3	25	22.3
6-9 months	62	55.9	69	61.6
1-3 months	22	19.8	18	16.1
Total	111	100	112	100

Migration of men

Limited access to forest resources has made some men run away from their area to town areas to look for other opportunities. As reported by one woman during Focus Group Discussion, that *“Limited access to forest resources has pushed the successful men to move away from this place to look for possible opportunities for their survival in other places like Ifakara town, Morogoro town and Dar es Salaam.”* The implication is that it reduces human labour in rural areas.

3.4 Conclusion and Recommendations

Communities adjacent to the Udzungwa Mountains Forest Reserve managed under JFM come across several challenges such as limited access to forest resources like fire wood, trees for different purpose. The residents (Local communities studied) are not pleased with Udzungwa Mountains National Park management due to the destruction of Total crops by wild animals. The management does not take into account to compensate for the loss of crops. Despite the above challenges, the local communities acknowledged that JFM had enabled them to have improved some services like dispensaries and some school classes. The research therefore, recommends that awareness should be created to the adjacent communities about the importance and the need to conserve the forest and the benefit and loss they would incur in the course of project implementation. In addition, to enhance sustainable income generating activities capacity building among local communities is needed to enable them strengthen and create social group activities such as bee keeping, eco-tourism, aquaculture and mushroom farming. Also improving crop production practices should be emphasized so as to increase production in a small piece of land and therefore to avoid encroachments to the forest reserve and improve the livelihood of the adjacent communities. The Udzungwa Mountain National Park management should have a mechanism for compensating the villagers when wildlife destroys their crops.



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