



# **EVOLUTION AND STATUS OF PARTICIPATORY FORESTRY MANAGEMENT IN TANZANIA AND FUTURE DIRECTION**

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## **ABSTRACT**

The key note paper provides an overview about the evolution and status of PFM in Tanzania with a reflection on future direction. The paper begins by highlighting the importance of forests and woodlands in enhancing community livelihoods not only in Tanzania but also across Africa. The paper also examines how PFM emerged including implementation of decentralization policies at the local level, which also led to Local Government reforms as well as restructuring of district and regional administrative structures. Evolution of PFM is a result of government's inadequate capacity to protect and manage forest resources. Evolution and adoption of PFM strategies partly was due to implementation of the Forest Policy of 1998 supported by the Forest Act Cap 323 [R.E. 2002] which provided needed legal backing for engaging key stakeholders including local communities in conservation and management of forests and woodlands. In addition, the paper examines how PFM has shaped the villagers' perceptions about conservation and likely benefits although the challenge remains on benefit sharing especially where Joint Forest Management initiatives are concerned. Despite some challenges, the importance of local communities' engaging in forest conservation cannot be overemphasized. In conclusion, the paper highlights on the need to scale up PFM efforts by involving as many local communities as possible and also making sure that the issue of benefit sharing is resolved within a foreseeable future for the benefits of all.

**Keywords:** Benefits sharing, colonial rule, decentralization, forest conservation, income, livelihoods, Joint Forest Management.

## **INTRODUCTION**

The paper tries to address the evolution and status of PFM in Tanzania and also charts the future direction of PFM implementation programmes and strategies. Is PFM still valid in context of the institutional changes that have been made and what is it that we should expect in light of sustainable forest management (SFM) and biodiversity conservation in Tanzania?

Although the theme of the conference is about PFM, its status, opportunities and challenges, this paper also provides some insights on the importance of forests and woodlands in enhancing community livelihoods not only in Tanzania but across Africa. Furthermore, the paper also provides some insights about the history and the implication of previous policies and legislation on forestry. Hence, it was considered important to mention, in a nutshell, what transpired over the years during the colonial era, post-independence time and why the Government had to brainstorm and undertake PFM as a viable mechanism or roadmap for attaining SFM on the mainland Tanzania in the context of decentralization policies and strategies.

## **THE IMPORTANCE OF FOREST AND WOODLAND RESOURCES**

In the United Republic of Tanzania (URT) and indeed in other countries in sub-Saharan Africa, goods and services derived



from forests and woodlands including trees outside forests (ToFs) are extremely important resources for income generation to many households in rural and urban settings. It is estimated that more than 100 million people in sub-Saharan Africa earn incomes from forest-related activities such as fuelwood gathering for home use and trading, logging and timber production, plantations, woodlots and charcoal production for selling. According to Kaimowitz *et al.* (1998), forests and woodlands are also important centres for providing food such as nuts, fruits, vegetables, mushrooms. Furthermore, the forests and woodlands in the African context are important sources for fodder and medicine (Poulsen, 1982) as well as shelter materials, woodfuels (Namwata *et al.* 2012) and also many rural households relying on non-cultivated natural resources (e.g. insects and game products) for their wellbeing (Kamanga *et al.* 2009, Poulsen 1982; Sunderlin *et al.* 2005 Vedeld *et al.* 2007). Forests and woodlands also provide raw materials such as rattan (in Asia) or palm leaves (in Africa) for processing and weaving including materials like dyes, silk and resins (Poulsen 1981). Dependency on forest resources for livelihoods in Africa is relatively high compared to other continents. For instance, in Zambia forest products (mainly charcoal and firewood) contribute about 20.6% of total household income whereas in some parts of Tanzania such as the Southern Highlands areas especially in Iringa and Njombe Regions, contribution of forestry in household incomes could be ranked first to agriculture. In the Democratic Republic of Congo (DRC), more than 40 million people, mostly in rural areas depend on forest resources for the supply of food, income, energy and shelter. Globally more than 1.6 billion people are considered to depend, to varying degrees, on forest resources for their livelihood (World Bank, 2001 Vedeld *et al.* 2007). According to Mwakasendo (2009) most of the people who earn their livelihoods from forest and woodland related activities are the poorest

(of the poor segments of the society) and often marginalized with no viable and affordable alternatives.

### **Pre-colonial era**

Before the appearance of German rulers and forest administrators, Tanzania was inhabited by the indigenous peoples who mostly depended on environmental resources for their livelihoods. These environmental resources include: land, soils, forests, wildlife, water, fisheries, ecosystems and air quality. The mode of life hinged on subsistence economy producing food crops and livestock products to feed families. Shifting cultivation was the main farming practice and different types of crops were grown depending on locations, weather patterns and the indigenous ecological knowledge within the locality. Hunting of wildlife as well as gathering of natural food stuffs like different types of fruits, mushrooms, various insects as well as different herbal vegetables and medicines contributed significantly to the households' and society welfare. The governance structures were based on Chiefdoms with clear line of command from the village leader to the chief. Resources ownership was vested within the clan and different clans owned farmland and forest resources but the overall authority remained with the chief. Not all the households in different tribes owned and managed livestock except in the *Wasukuma* and *Wamaasai* tribes where almost every household owned some livestock. It is a tradition for these tribes to keep and maintain livestock and for the *Wamaasai* people keeping cattle is part of their identity and wellbeing. The coming of colonial rulers had an impact on the traditional systems and norms that governed the use of environmental resources including forests and woodlands.

### **The German Colonial Period**

It could be urged that formal conservation and management of forest and woodland resources in Tanzania started during the



German rule. In 1891 the mainland together with Burundi and Rwanda, became under the German administration and formed what was called Deutsch-Ostafrika. When the German administrators started working in the colonial territory, very few Germans had knowledge about forest conservation and management. Thus, with little forestry education, the colonial administrators were unable to exercise effective forest conservation and management. According to Voss (undated), some German administrators dealt with forestry issues occasionally besides their other regular duties in the general administration and in the process some forestry outposts were established in Arusha, Muhoro (in Rufiji District), Magrotto (in Muheza District), Lushoto, Bagamoyo, Morogoro and Moshi but most of these did not last long due to inadequate staff. In 1903 the first professional Forester was posted to Deutsch-Ostafrika, implying a growing recognition and importance of forestry in the colony and in 1912 some field offices were established in Muhoro (Rufiji-delta), Morogoro and Lushoto. Over time, the number of German forestry personnel increased and some local people were also given some hand-on training to take up posts as Forest Wardens and were obliged to wear uniforms. The first forest conservation ordinance was issued in 1904, and thereafter the reservation of some forest areas began. There were, however, still shortages of trained forestry staff to monitor the growing area of forest reserves (FRs) which were to serve a dual purpose of conservation and production: so *Jumbe* (Village Elders) and *Akida* (Cooperative Chief) were appointed by the Germans Administrators and were often required to execute forest conservation and management activities and responsibilities (Gibbon 1996). Furthermore, according to Hamilton and Bensted-Smith (1989), the German management of forest resources was regarded as a mixture of conservation of areas of high ecological values.

On the other hand, when the German forest personnel surveyed the forests, they often saw depleted and deteriorating areas, and attributed this situation to indigenous practices implying “careless and detrimental forest resources use”. The traditional farming system that involved shifting cultivation practices often left the impression that the peasant farmers burned and cleared crop fields in a forested area, cultivated it until it became unproductive (about three years of cropping), and then abandoned it thereby clearing another nearby forest plot, and would continue to do the same indefinitely, and in the process seriously depleting the forests. This practice is very detrimental to the environment, especially in places where the population pressure is high?. Also, the seemingly indiscriminate burning in the woodlands was regarded as highly destructive, and prohibitions of forest fires were issued as early as 1893 (Gibbon 1996). Generally, enforcement of the forest laws and regulations was not easy due to inadequate staff and equipment. The forestry staffs were aware of the importance of montane forests in water catchment areas, and of the need to secure forest resources for the use of the Government, especially generating income through proper forest governance and management.

The German administration’s main goal of managing properly forest resources hinged on the need to generate substantial Government revenues possibly through promotion of an efficient timber industry. According to Voss (undated), some timber companies (such as Wilkins und Wiese, that operated in the Usambara Mountain forests, connecting their logging sites with the Usambara railway by a tramway (e.g. remnants at Zigi River adjacent to the road from Muheza to Amani in the East Usambara Mountains block), established themselves basically in the northern mountainous areas that included Usambara, Uluguru, Nguru\Nguu, Kilimanjaro and Meru, which became the main focus of German forest management



due to their pleasant climate and relative proximity to the Indian Ocean. During the German rule, there were three major markets for the forest products from Deutsch-Ostafrika:

- (i) the local market for firewood, charcoal and construction timber;
- (ii) a regional market located in the margins of the Indian ocean including India (every year, dhows would emerge within the Rufiji-delta to load and transport timber and poles from the extensive mangrove forests); and
- (iii) the European market for the valuable hardwoods (logs and timber) however, due to the difficulties of transport, the demand became lower than expected and therefore the situation for marketing of forest products became unfavourable. Thus this incidence of unforeseen circumstances in forest products trading dismissed hopes from German rulers to generate more revenues from forest resources.

According to Gibbon (1996), the failure to materialise of expected revenues from forest resources forced Eckert (the German Forest Officer) to resign in 1909. On the other hand, there were some successful attempts to establish plantations of Teak (*Tectona grandis*), Pines and Cyprus (various *Pinus* and *Cypresses* species from different provenances), different types of *Eucalyptus* species and other tree species and much silvicultural research was done (Hamza and Lewark 1993).

Based on encouraging research results, the German foresters and administrators directed more efforts and emphasis to forest research but also the protection aspect of the forest resource management gained momentum. This meant focusing on more provenance and species trials and the establishment of FRs by closing off remaining forested areas from human settlement and cultivation (Hofstad 1990). Although Koponen (1994) regarded the efforts of gazettement and putting more forest

areas under legal protection as an abuse to local people, many FRs were gazetted in watershed areas because those were considered crucial for enhancing the fertility of the land and thus the future livelihoods of people (Holmes 1995). However, in some situations several gazettements were undertaken to preserve forest resources for future logging needs (Hosier 1993).

The First World War started in 1914, and fighting continued throughout the Deutsch-Ostafrika area thereby seriously affecting many parts of the territory and in 1918 the war ended but also Deutsch-Ostafrika ceased. However, ending of the German colonial period in Deutsch-Ostafrika marked the beginning of European domination, and the foundations for colonial forest resource management, largely by the British administrators. The conflicts that arose when local people were deprived of their lands in favour of FRs and often forced to move from their homesteads during the gazettement processes continued under British rule. Indigenous practices were considered harmful, and regulations to reduce the negative impacts to forests were issued accordingly. Illegal activities (clearing for farming, hunting and setting wild fires) in the declared FRs were ways of protesting against the German rulers and forestry authority because gazettement of forest areas was done against their will but also as means of continuing customary land use despite prohibiting human activities in reserved forest areas (Hamilton and Bensted-Smith 1989).

### **The British Colonial Period**

Following the treaty of 1919 after the First World War, Tanganyika which was part of the Deutsch-Ostafrika became under the administration of the British under a League of Nations Mandate. Regarding natural resources management and according to Iliffe (1979), the mandate agreement stated as follows: "...in framing the laws relating to the holding or transfer



of land and natural resources, the administering authority should take into consideration native laws and customs, and respect the rights and benefits of the native population”.

All the land (except about 1% that was designated as freehold) was declared Crown land under the Land Ordinance of 1923. However, the land was “leased back” to indigenous peoples’ and controlled under the customary land tenure systems. It was also decided to make Tanganyika a “Black man’s country” economically based upon peasant agriculture, requiring widespread introduction of cash crops (Iversen, 1991). Regarding the management of forest resources, the first British Conservator of forests was appointed in 1919, administering the existing FRs, and a

Forest Ordinance was passed in 1921. All FRs were initially re-gazetted, but later some were de-gazetted thereby allowing new areas to be incorporated. By 1925, Tanganyika Territory had registered a total of 212 Territorial FRs covering 9,749.42 km<sup>2</sup> or 974,941 ha predominantly of montane closed forests (Jespersen 1996). Due to inadequate human and financial resources, the actual ground surveys and demarcation of FRs proceeded at a very slow pace. In 1937, the British established a Forestry Training Institute at Olmotonyi, Arusha to train Certificate and Diploma holders including Beekeeping experts. Information available indicates that between 1961 (after independence) and 2012 the number of trained certificate and diploma holders shown in Table 1.

Table 1: Number of trained Certificate and Diploma holders at Forestry Training Institute, Olmotonyi, 1961 to 2012.

	1961-70	1971-80	1981-90	1991-00	2001-10	2010/11	2011/12
Certificate	128	433	555	131	208	56	76
Diploma	15	215	362	170	441	25	46
Total	143	648	917	301	649	81	122
Average/year	10	65	92	30	65	-	-

Source: FTI-Olmotonyi. NB: No data between 1937 and 1960

The 1921 Forest Ordinance prohibited activities such as cutting or removing trees or forest produce, firing, squatting, grazing and cultivating in FRs. However, licenses could be issued granting user rights to any of the above activities. Forest produce could be obtained freely by people living close to FRs provided that it was for their own use, but in 1928 a fee was imposed on the removal of certain, valuable tree species hence restricted the use of certain species such as Mninga (*Pterocarpus angolensis*), Mvule (*Milicia excelsa*), Mpingo (*Dalbergia melanoxylon*) and others.

In 1935, the Director of the Imperial Forestry Institute, R.S. Troup visited Tanganyika Territory. Like the German rulers, the British forest administration’s primary goal was generation of revenues and Troup reaffirmed this position

(Johnsen 1999). Timber from FRs would generate income through concessions and royalties, and the forest resources contributed to growth in other sectors such as railways and mines. A ten-year plan to demarcate and reserve new forest areas was adopted and funding increased (mainly through the Colonial Development Fund). The free issue of forest produce to local people was regarded by Troup and other forestry personnel as wasteful because it was considered a way of losing potential revenue. The administrators, however, realised that abolition of “free issue” rights would cause political challenges and dissatisfaction among Africans. This necessitated gazettelement of some small forest areas hitherto declared as Native Authority Forests Reserves, managed and used by local people and communities.



Promoting the establishment of Native Authority Forests: Local Authority Forest Reserves-LAFRs (natural forests and plantations) were for local uses. Territorial FRs was exploited by the Forest Department and therefore enabled the British rulers to make more revenues through concession holders and royalties and fees. The Native Authorities were left with LAFRs and the general woodlands became centres for exclusive forest resources exploitation to meet domestic needs and sources of revenues for the Native Authorities. As the areas of Native Authority Forests increased, the need for free issue gradually ceased (Kjekshus 1977). All potential revenue from Native Authority forests was for the Native Authority Treasury. On the other hand, all valuable tree species wherever they occurred had restricted use and were reserved as State properties (Koponen 1994).

At Independence in 1961, Tanganyika Territory forest estates covered 106,366 km<sup>2</sup> (10,636,600 ha) of state forests and 11,409 km<sup>2</sup> (1,140,900 ha) of Native Authority forests) (Küchli 1997). During the Second World War, gazettement of additional FRs and overall forest management was affected. However, export boomed as timber was needed for various purposes as well as for sleepers for the construction of railways in Iran. Since it was estimated that only 25% of the total timber output during the Second World War came from the FRs, however, most timber came from private logging operations on public land by European companies (Lovett and Pócs 1993). In 1949, it was observed that since the arrival of British forest administrators not much progress had been made because under British occupation, the proportions of land under the FRs had increased only slightly, from 1.09% to 1.3%. Training of African foresters was deemed inadequate, and reserves were remote, scattered and small, and their boundaries ill-defined” (Lundgren 1995).

A Forest Policy was adopted in 1953, recognizing the fact that most timber came from outside the FRs, and emphasizing the role of protection rather than production. Implementation of the forest policy was enhanced by the Forest Ordinance of 1957 (replaced the 1921 Forest Ordinance). The protection of watershed areas and other forested areas was given priority in the 1953 Forest Policy in order to prevent soil erosion and land degradation, and also led to the gazettement of more large areas of FRs, including the wetlands in vast miombo woodlands such as those in Katavi, Rukwa and Tabora Regions. According to Holmes (1995), Britain allowed relatively little investments in Tanganyika Territory, but whatever initiatives that were undertaken in agriculture, livestock and conservation, led to interference of British administrators into the lives and livelihoods of local communities (Maddox *et al.* 1996). Besides the FRs, large areas of woodlands and grasslands were declared as Game Reserves and National Parks, to protect the African fauna for purposes of tourism, hunting and future scientific studies and research. Some forest plantations were established, often on sites of logged and cleared natural forests (Milton 1996) and some areas of woodland were cleared during tsetse-control schemes (Monela 1995). At independence, forest resources were legally categories as follows:

- (i) Forest Reserve: No settlement or human activities allowed unless one has a written permit or license (free rights being a privilege). FRs are enacted by Ministerial Gazettement through Government Notices (GN) under the Forest Act enacted by the Parliament;
- (ii) Native Authority Forest Reserves: under Native Authority Management (now District Councils) and enacted by Ministerial Gazettement through Government Notice (GN) under the Forest Act by the Parliament;
- (iii) Game Reserve: no human rights or utilization, enacted by Ministerial



Gazettement through Government Notice (GN) based on the Wildlife Act passed by the Parliament;

- (iv) National Park: no human rights or utilization, enacted by Parliament; and
- (v) Public or general Land: open access, except for gazetted valuable species.

### **Post-Independence up to 1980**

One year after independence (i.e. 9<sup>th</sup> December 1962), Tanganyika became a Republic (self-ruling Government) and began its roadmap to make the country a better place for her people through policies and strategies that geared towards improving the social, economic and cultural dimensions of the society. The national policy declared poverty, ignorance and diseases as main enemies of the nation. Efforts were made to make sure that over time these enemies are eliminated. In 1964 (26<sup>th</sup> April), the Presidents of Tanganyika and Zanzibar agreed and formed a Union that brought into being what today is known as the United Republic of Tanzania (URT). This outstanding union kept Zanzibar with some autonomy (some self-governance structures remaining in place) while Tanganyika became solely under the Union Government structures. On the other hand, the union matters were defined and clearly stipulated within the national Constitution. Matters related to natural resources including forestry resources management were not part of the union.

In the 1960s, Local Government Authorities (LGAs) continued to operate following the colonial style and system of governance. However, most of the powers including conservation and management of territorial FRs and forests on public land as well as reserved tree species were concentrated within the Central Government. In 1967, the Arusha Declaration was adopted as the key instrument to guide leadership in the country. The declaration values hinged on

a concept of local community development and African Socialism in the context of an individual being part and parcel of the community. Furthermore, self-reliance and/or collective production with community empowerment mechanisms were emphasized. Through the declaration, the ruling Party (Tanganyika African National Union-TANU) established a leadership code (creed) that became a basis for instituting legitimate national ethics and integrity. All public leaders both in government and politics were required to observe the principles of the Arusha Declaration and deliver services to the public with the highest. Civil servants including Foresters were bound to be obedient civil servants and guided by the penal code including regular orders issued by the Establishment Department, Ministry of Finance and Economic Affairs and other relevant authorities.

In 1972, the decentralization policy was greatly emphasized aiming at devolution of some Central Government powers to the grassroots. To that effect, the LGAs were abolished and the Regional and District administration were instituted whereby the Regional Development Directors (RDDs) and the District Development Directors (DDDs) were responsible authorities for all technical and financial matters while the Regional and Area Commissioners (RCs and ACs) taking control of the political and overseeing law and order at the regional and district levels respectively. The changes were expected to bring greater accountability and enhanced community participation through improved coordination of sectoral policies and strategies. The villagization programme was also part of the Government drive to improve rural lives through provision of quality and affordable socio-economic services. Hence, establishment of “Ujamaa” Villages under the “Uhuru na Ujamaa” policy (part of the Arusha Declaration) aimed at seeing the villages on the mainland being units for attaining people’ centred sustainable development whereby deliverance of



affordable social services was a key objective. The villagization programme enabled scattered households to be in one coherent community.

Despite the good intentions by the Government, the changes that were instituted and executed in the 1970s did not produce intended impacts on improved services delivery to communities and attainment of sustainable socio-economic development. In 1982, the Government re-established the LGAs, the Cooperatives systems and replaced RDDs with Regional Administrative Secretaries (RASs), DDDs became District Executive Directors (DEDs) and the ACs back to District Commissioners (DCs). According to Tax and Hauck (2003), Tanzania adopted decentralization legislation in late 1990s, which aimed to devolve significant powers to locally elected Urban and Rural District Councils in order to control local development agenda. Despite this move, still the impact is yet to be noticed as the system seems to operate in a business as usual manner and has not helped to improve management of forest and woodland resources.

During the 1960s, management of forest and woodland resources were mainly carried out through the district authorities and the District Forest Officers (DFOs) taking up the responsibility to manage the Territorial FRs while the District Forest Manager was in-charge of managing LAFRs. Abolition of LGAs left the DFOs being responsible for management of all forests in the district except a few catchment forests that were managed by the Central Government. In most cases, the Forestry and Beekeeping Division (FBD) concentrated efforts on establishment and management of industrial plantations in 15 different locations throughout the mainland using financial and technical support from the Government of Sweden through the Swedish International Development Agency (Sida). It was also during the 1970s that training of foresters at the Forestry Training Institute (FTI-

Olmotonyi-Arusha) was given some a boost. Furthermore, training of forest officers with support from the Government of Norway (through Norwegian Agency for Development Cooperation - NORAD) gained momentum and the Division of Forestry was established early 1970s under the University of Dar-es-Salaam and housed within the Faculty of Agriculture in Morogoro (now Sokoine University of Agriculture-SUA). On the other hand, the forest sector was badly affected by the Government decision to abolish the Forest Guards cadre when the Government adopted the priority sector policy and categorized natural resources as not a priority sector. Thus, the significant work force in forestry was significantly reduced and therefore left most of the FRs and other forests without tangible management.

In Africa, a number of factors are responsible for poor performance in service delivery despite having in place good policies and strategies. In Tanzania for instance, extension services have not enabled smallholder farmers to use agricultural land on a sustainable basis instead, slash-and-burn farming system is still a common practice where a farm plot is used for three years and then abandoned due to declining productivity and another plot taken up within the nearby virgin fertile forestland. Furthermore, because of poor farming implements, mostly being hand hoes, farmers work on very small plots of 1-2 ha. Experiences in Tanzania indicate that in such a situation, it implies an increased dependency on forest resources. The situation of inappropriate farming practices coupled with high dependency on forest resources by poor households in villages adjacent to forests led to serious land degradation. In mid-1970s, the situation was already alarming in Dodoma Region, particularly in some parts of Kondoa and Mpwapwa Districts where formation of gullies was evident. The Government had to step in to reverse the situation by reclaiming the already ruined areas through implementation of the





*Hifadhi Ardhi Dodoma* (HADO) project. In the 1980s, the Government realized the rate of loss of forest and woodland resources to be increased due to rising pressure from rural communities as they struggled to gain their livelihoods.

Based on the evidence that the mainland was losing its natural capital at an alarming rate and further that serious land degradation had also occurred in Shinyanga Region to the extent of causing desertification, the Ministry of Natural Resources and Tourism (MNRT) in 1984 organized a national conference that was attended by key stakeholders and was chaired by the President. The conference participants recommended the following:

- (i) To establish a similar project like HADO so that reclamation of seriously degraded areas in Shinyanga Region could start and be implemented by the MNRT in collaboration with other stakeholder. To that effect the *Hifadhi Ardhi Shinyanga* (HASHI) project was started in 1985; and
- (ii) The MNRT to develop a programme and strategies that would lead to increased tree planting efforts throughout the mainland. Thus, the Village Afforestation Programme was started.

In early 1980s, the Ministry established a Village Afforestation Unit headed by the Forest Officer Village Afforestation Unit (FOVU). The Unit was responsible for planning, implementation and coordination of tree planting activities. This entailed undertaking forest publicity, education and awareness raising campaigns. Furthermore, the Unit was responsible for preparation and production of forest extension and publicity materials including brochures, newsletters and fliers. These plus radio and TV programmes were used to educate and sensitize the villagers and the general public on various aspects of tree planting including soil conservation. Not only that but also activities for both HADO and HASHI projects were

coordinated by the Village Forestry Unit within the Forest Management Section and for that matter soil conservation was an important component. During late 1980s, the village forestry unit was upgraded into the Community Forestry Section (CFS).

## EVOLUTION OF PARTICIPATORY FOREST MANAGEMENT IN TANZANIA

In principle, the main concern under participatory forest conservation and management initiatives are the people, who from time to time, are constantly interacting with the forests and woodlands adjacent to them. This happens almost on daily basis when both people in rural and urban areas (forest adjacent local community and the business people respectively) struggle to make a living by utilizing available environmental resources. The Government found it useful to involve and engage the key stakeholders especially the forest adjacent people (local communities and Community Based Organizations (CBOs)) in managing and protecting forest and/or wildlife resources with some degree of assurance that their needs are adequately secured. The extent to which the responsibilities and access rights to natural resources would be shared may vary between different approaches and actors. Firstly, one has to ask why and for whose interests to engage other stakeholders? Secondly, it has to be clearly conceived within the institutional policy framework and supported by the legislation. Thirdly, it is useful to be clear of the incentives or benefits that are likely to accrue to parties involved. For instance, PFM was adopted as one of the tools within the framework of the National Forest Programme (NFP) approved by the MNRT as a mechanism for translating and implementing the national forestry policy (1998) into actions on the ground. This was considered necessary because the NFP aimed at improving forest conservation as indicated in the policy development programme objective one: *to improve forest resources*



and management including sustainable livelihoods to forest adjacent local communities.

Furthermore, based on the experiences gained during implementation of villagization, village afforestation, community forestry programmes (1970s to 1990s); also based on experiences generated through other field projects such as *Hifadhi Mazingira* (HIMA) (in Iringa), Soil Erosion Control and Agroforestry Project (SECAP) (in Lushoto), Soil Conservation and Agroforestry Project Arusha (SCAPA) (in Arusha), Land Management programme (LAMP) (in Manyara and Singida?) it was noted that capacity within FBD, in terms of adequate staffs and equipment, was inadequate hence more capacity building was needed. Furthermore, considering that FRs were scattered throughout the mainland with many villages or communities adjacent to them, it became clear that FBD alone could not effectively manage FRs and other forests. In that context, it was considered a good idea to engage and collaborate with key stakeholders in conservation and management of forests and woodlands for the benefit of all. Not only that but also, the National Forest Policy (1998) emphasized the importance of engaging stakeholders especially the forest adjacent local communities, in forest resources management in order to ensure sustainable use and therefore reduce loss of forests and biodiversity. On the other hand; participatory approaches to conservation include Integrated Conservation and Development Projects (ICDP) and various joint or co-management schemes, such as Joint Forest Management (JFM) and Community-Based Forest Management (CBFM). Through ICDPs, issues related to conservation of biodiversity resources are linked with social and economic development aspects. Community-based conservation and natural resource management initiatives are other strategies, which in principle, intend to devolve more power to the local people.

Nevertheless, several studies (Wells *et al.* 1992, Newmark and Hough 2000, Barrett *et al.* 2001) show that most of the initiatives involving participatory approaches to conservation and forest management often fail to achieve intended goals, objectives and outcomes in terms of devolving the decision-making powers and/or benefit sharing to the local people.

On the other hand, participatory approaches to socio-economic development have been criticised. For instance, Mohan and Stokke (2000) argue that an emphasis on “local participation” can underestimate the role and decision-making power of state authorities thereby giving too much emphasis on local community. Power sharing and decision making modalities between the state and the local actors are not a bad idea at all. If the policy and legislation frameworks are clear on participatory aspects as far as conservation and sustainable uses of natural resources are concerned, would provide a balanced platform and a good basis for translating policies into viable actions on the ground for the benefits of all parties. According to Willy (2002), experiences from the conservation of forests in East Usambara Mountains, Tanzania indicate that the local people are just regarded as the beneficiaries and not as actual decision makers over forest use. Alternatively, the communities can be considered as “custodians” of the forests. Wily and Dewees (2001) suggest that the forest-adjacent communities hold enough custodial interests to manage forests well and they could at least be given decision-making powers if not full tenure rights.

## **IMPLEMENTATION STATUS OF PFM IN TANZANIA**

Increased efforts to having PFM activities being implemented on the mainland started in the 1990s firstly, in Babati District whereby villages adjacent to Duru-Haitemba FR were engaged under the LAMP initiatives with financial support from the Swedish Government through



Sida. From there, efforts spread and expanded to other areas including engaging communities around Mgori forest in Singida district, SULEDO forest in Kiteto district and later on covering other forest areas like Angai forest in Liwale District. A number of key stakeholders including Non-Governmental Organizations (NGOs) and Civil Society Organizations (CSOs), the private sector, research and academic institutions have been involved in planning and implementation of PFM activities.

Implementation of PFM initiatives involved a range of forest types including Territorial FRs, LAFRs, Village Land Forest Reserves and Community Forest Reserves. In addition, PFM approaches are used in the protection and management of a variety of other forest ecosystems such as mangrove, coastal, montane forests as well as the Miombo, Acacia-Savannah woodlands including the Itigi thickets (for instance, conducting beekeeping activities whereby local people are engaged).



Plate 1: Villagers attending a village council meeting on PFM. Source: FBD (PFM Unit).

Through the 1998 National Forest Policy and subsequent Forest Act Cap 323 [R.E. 2002], PFM approaches received legal backing and recognition. Thus, the policy and the legislation provided a legal basis for the villages, groups or individuals on the mainland to own, manage or co-manage forests under a wide range of social, environmental, political and economic conditions. Through the Forest Act (Cap 323 [R.E. 2002]) the stakeholders particularly villages and communities are:

(i) Enabled to declare and ultimately gazette Village, Community or Private

Forest Reserves under the CBFM platform; and

(ii) Allowed to sign joint forest management agreements with Government and other forest owners under the JFM agreements.

The first form of PFM is implemented on village land but also could be on individual or community private land. The forests and/or trees outside the forests are owned and managed either by the Village Council (in most cases through the Village Natural Resource or Forest Committee).



Table 2: Names and project areas of focus for key Development Partners, NGOs and other national and global organisations working and/or providing support on PFM

Name /Type of institution	Name / Source of funds	Primary Focus with respect to PFM
Forestry and Beekeeping Division, MNRT	Participatory Forest Management (Danida)	CBFM and JFM. Iringa, Morogoro, Mbeya and Lindi Regions
	National Forest Programme-MFA Finland	CBFM and JFM. Tanga, Mtwara, Morogoro, Dodoma, Kagera, Rukwa, Ruvuma, Kigoma and Shinyanga and Mara Regions
	Catchment and Mangrove programme (NORAD)	JFM. Morogoro, Tanga, Kilimanjaro and Arusha Regions (Closed 2007)
International NGOs	Tanzania Forest Conservation and Management Project	Twenty five (25) districts. CBFM and JFM. Implemented through the Tanzania Social Action Fund.
	Wild Wildlife Fund (WWF)	JFM and some CBFM in Coastal forests in Tanga, Lindi and Pwani Regions
	CARE International	JFM in Uluguru Mountains, South Nguru / Kanga FRs Mvomero
	Africare Farm Africa	CBFM in the miombo woodlands of Tabora JFM in Nou forest in Babati and Mbulu Districts (project closed since 2007)
National NGOs	Danish Hunters Association	CBFM in Wami-Mbiki conservation area (current project not operational)
	Tanzania Forest Conservation Group	JFM (and some CBFM) in high biodiversity forests of Eastern Arc Mountains and coastal Tanzania
	Wildlife Conservation Society of Tanzania	JFM (and some CBFM) in high biodiversity forests of Eastern Arc Mountains and coastal Tanzania
	Mpingo Conservation Project	CBFM in coastal forests in Kilwa District
Area Based Projects	Land Management Programme (Sida)	CBFM in miombo woodlands in Babati, Kiteto, and Singida Districts
	HADO	Soil conservation and land rehabilitation in Dodoma Region. Funded by FBD Internal Funds.
	District Natural Resource Management Project – GTZ	Supporting JFM and CBFM in Lushoto, Mwanga and Handeni Districts (Closed since 2005)
	MEMA (Danida)	CBFM and JFM in Iringa District (project closed 2004)
	HIMA (Danida)	CBFM and JFM in Iringa Region (project closed 2001)
	UTUMI (Danida)	CBFM and JFM in coastal forests of Lindi Region (Project closed 2004)
	HASHI (NORAD)	Establishing traditional forest management in <i>Acacia</i> woodlands of Shinyanga and Mwanza Regions (project closed 2006)
	Forest Resources Management Project (World Bank)	JFM and some CBFM in miombo woodlands of Tabora Region (project closed 1998)
	REMP (IUCN)	CBFM in coastal woodlands and forest of Rufiji District (Project closed 2004)
	EUCAMP (Finnida)	JFM and CBFM in high biodiversity forests in Tanga Region (project closed since 2002/03).
	GEF Cross Borders Project (UNDP-GEF)	JFM in high biodiversity forests in Monduli, Bukoba and Same Districts (closed since 2002/03)

(Source: MNRT-PFM Unit)

The second form of PFM takes place on reserved forest land, which is owned and managed by either the central or Local Government. The villagers typically enter into management agreements to share

responsibilities for the management with the forest owner. While many villages are participating in PFM across the country, relatively few have formalized their forest management in line with the provisions of the Forest Act. This requires that villagers have an approved management plan their



forest land or signed Joint Management Agreement for their Village Forest Management Area. In 2012, MNRT commissioned a detailed survey of PFM and its impact in the country. Information (data) about PFM was collected involving

80 District Councils and also obtained from a number of projects and organizations involved in PFM implementation (Table 2). The overview of PFM performances is indicated in Table 3.

Table 3: Overview of PFM performance on mainland Tanzania by 2012

Area of forests covered by PFM	7,758,788 ha
Percentage of forest area under PFM	23.3%
Number of Villages involved in PFM	2285
The percentage of total villages involved in PFM	21.5%
Villages with declared/gazetted village forests or signed Joint Management Agreements	580
The number of districts with operational PFM activities	77

(Source: MNRT-PFM Unit)

### Community-Based Forest Management

Community-Based Forest Management (CBFM) is an approach adopted by the Government to increase engagement of communities, the private sector and other stakeholders in conservation and sustainable utilization of forest and woodland resources available within their areas. Table 4 gives an overview of CBFM status of performance in various locations on the mainland.

By the end of 2012, the District Councils and villages had declared 409 Village Land Forest Reserves (VLFRs) and several others were planned to be declared. In most cases efforts have been directed by the Central and District Governments on the establishment of VLFRs. Due to low capacities in the FBD, only 71 VLFRs have gone through the legal process of gazettement under the Forest Act (mostly in Iringa Region based on HIMA project supported by DANIDA in the 1990s).

Experiences show that VLFRs have the potential of making greater impacts on poverty reduction through benefits to poor local communities. Table 5 provides a summary of the distribution of CBFM across the different regions of mainland Tanzania.

A series of studies carried out over the past few years by independent researchers and through results of regular monitoring visits by FBD and Prime Ministers' Office-Regional Administration and Local Government (PMO-RALG) officials provide some evidence that forests under community management have reduced levels of disturbance from illegal harvesting either for charcoal or timber production when compared with forests on the general land and/or under Government management without involving and engaging forest adjacent local communities.

Table 4: Overview of CBFM status on mainland Tanzania

Villages with CBFM established or in process	1233
Area of forest covered by CBFM arrangements	2,316,635 ha
Number of declared Village Land Forest Reserves	409
Number of gazetted Village Land Forest Reserves	71
Number of Districts implementing CBFM	69
Forest types where CBFM is undertaken	Miombo, Coastal and Acacia woodlands
Percentage of public land forests under CBFM	12.1%
Percentage of Villages engaged in CBFM activities	11.7%

(Source: MNRT-PFM Unit 2012)



In some villages such as Nanjirinji “A” in Kilwa District or Maguruwe in Rufiji District where harvesting of forest produces in VLFRs has started, the villagers are benefiting from revenues received and the money is used for improving social services and development

projects like building Dispensaries and Nurses’ houses, Classrooms, Village offices, and meeting villages’ contributions to various Ward and District social developmental activities.

Table 5: Regional distribution of CBFM across mainland Tanzania

Region	District	Number of villages	Number VLFRs	Declared VLFRs	Gazetted VLFRs	Total Area (ha)
Tanga	7	130	191	51	5	88,962.92
Morogoro	5	89	85	12	0	130,169.99
Dodoma	3	30	30	21	0	28,844.56
Arusha	1	10	10	3	0	6168
Kilimanjaro	2	19	19	18	0	22,048.53
Tabora	3	67	54	6	0	198,720.9
Rukwa	2	27	27	21	0	76,942.75
Kigoma	3	31	31	22	0	22,530.00
Shinyanga	5	80	76	16	0	24,312.64
Pwani	4	49	50	42	3	123,820.73
Lindi	5	112	73	30	0	584,239.91
Mtwara	3	26	25	5	0	10,636.8
Kagera	2	43	36	0	0	19,177.00
Mwanza	3	43	43	0	0	3849
Mara	2	16	16	0	0	756
Manyara	3	50	29	43	9	20,9494
Ruvuma	3	23	14	18	1	35,477.94
Iringa	5	209	168	119	53	229,490.77
Mbeya	5	120	93	63	0	88,078.83
Singida	3	59	21	19	0	412,914.2
Total	69	1,233	1,091	509	71	2,316,635

(Source: MNRT-PFM Unit 2012)

### Joint Forest Management (JFM)

Since the 1990s, promotion of JFM initiatives have been going-on and strongly promoted by FBD (now Tanzania Forest Service (TFS)) in the MNRT and regarded as an effective forest management strategy in national FRs. Although more emphasis were given to montane catchment forests in the high biodiversity Eastern Arc Mountains forests and in mangrove forest

ecosystem along the coastal areas, it does not mean that the strategy was limited to those sites. The JFM practices were also tried out in plantation forests using Shume plantation as an operational site. On the other hand, PFM initiatives have been backed up and strengthened by both national and global NGOs by promoting forest conservation and sustainable uses with emphasis on forest adjacent local communities as key beneficiaries.



Table 6: Overview of JFM performance on the mainland

Area of forest covered by JFM management	5,392,095 ha
Percentage of total area reserved (National or Local Governments) under JFM Agreement	41%
Primary forest types where JFM has been promoted	Montane, mangrove and coastal forests
Number of National FRs with JFM	181
Number of LAFRs with JFM	101
Regions where JFM is implemented	Morogoro, Iringa, Pwani, Tanga, Kilimanjaro
Number of villages with JFM (established or in process of being established)	1052
Number of Villages that have signed JMAs	248
Number of Districts where JFM is implemented	65

(Source: MNRT-PFM Unit 2012)

The NGOs include Tanzania Forest Conservation Group (TFCG), the Wildlife Conservation Society of Tanzania (WCST), and World-Wide Fund for conservation of Nature (WWF) and CARE International in Tanzania. Table 6 provides an overview about the distribution JFM initiatives and processes across the regions on the mainland.

So far experience indicates that there have been some increasing concerns and dissatisfactions expressed by the local communities and other key stakeholders including NGOs and CBOs regarding the long term future of JFM initiatives. Although PFM approaches as a whole are appreciated as being a good tool for the

Government to address threats and challenges facing conservation of forests and biodiversity on the mainland, the limiting factor toward attaining an effective PFM strategy lies on the failure by the Government to establish benefit sharing mechanism. This is because a final decision regarding the sharing of benefits from JFM undertakings has not been reached. Without a clear and binding agreement on how forest benefits will be shared between the stakeholders (particularly forest adjacent communities) and the Government, effective participation remains unclear. This shortfall draws back PFM efforts because most JFM agreements remain unsigned and result in dissatisfaction at the local level.

Table 7: Regional distribution of JFM performance on the mainland

Region	District	No of NFRs	No of LAFRs	Protection Forests	Production		No of Villages	JMAs signed	Total Area (ha)
					Forests	and Protection			
Tanga	8	56	5	30	17	14	201	47	114,572.44
Morogoro	5	27	2	26	3	0	119	44	249,831.60
Dodoma	2	6	0	4	2	0	23	2	76,770.6
Arusha	1	2	3	4	1	0	18	0	17,207
Kilimanjaro	3	12	5	16	7	0	76	34	58,255.147
Tabora	3	9	5	1	5	8	82	0	2,883,840
Kigoma	2	7	3	2	7	1	23	0	301,413.5
Shinyanga	3	2	8	7	1	2	22	1	126,827.3
Pwani	6	12	0	7	5	0	63	11	83,180.70
D'Salaam	2	2	0	0	2	0	15	0	4219
Lindi	4	5	2	0	1	6	35	0	314,417.37
Mtwara	3	2	5	4	3	0	40	6	17,650.31
Kagera	1	1	0	0	0	1	15	4	56,135.0
Mwanza	5	3	10	7	5	1	60	2	77,008.00
Mara	2	1	4	2	3	0	17	6	4492
Manyara	2	4	0	4	0	0	34	26	40,549
Ruvuma	2	2	1	1	2	0	12	0	11,175.8
Iringa	6	17	24	39	2	0	108	65	262,184.47
Mbeya	4	11	24	35	2	0	71	0	910,564
Singida	1	0	1	0	0	1	18	0	30,369
Total	65	181	102	189	68	34	1,052	248	5,640,662.24

NB: NFRs-National Forest Reserves; LAFRs-Local Authority Forest Reserve (Source: MNRT-PFM Unit 2012)



As a result of this uncertainty regarding benefit sharing, only 248 JFM agreements

that PFM is concentrated in some key areas—mostly in the coastal, central and southern regions (Tables 4, 5 & 6) where Development Partners and Government interests have been highest.

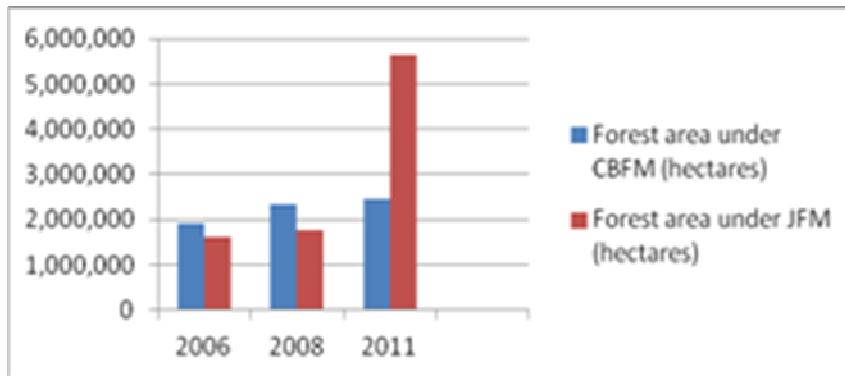


Figure 1: Forest areas under CBFM and JFM in the period 2006-2011

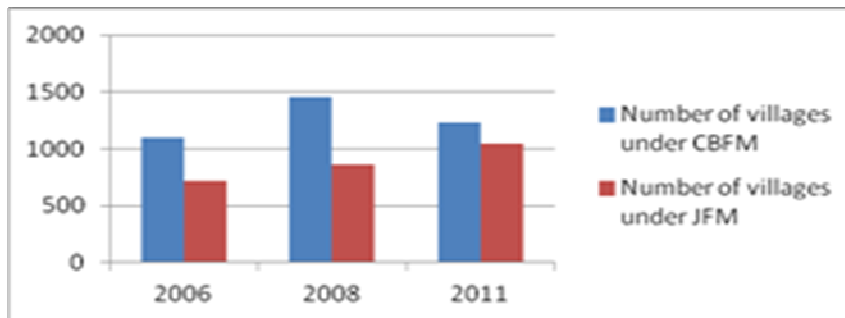


Figure 2: Number of villages implementing PFM: 2006-2011

Figure 1 shows that there are more JFM achievements (in terms of ha) compared to CBFM. This appears so because of large size forest reserves involved in JFM compared to areas under CBFM arrangements.

In Figure 2, the data shows lower number of villages participating in JFM and more villages under CBFM. This means low number of villages operating on relatively large areas of National FRs compared

to more villages in CBFM but covering relatively small areas of forests within the community or village land.

had been signed by the end of 2012. Table 7 provides a summary on the distribution of JFM initiatives in different regions across the mainland. On average, PFM coverage continued to expand over the years since its inception in Tanzania in the 1990s. In most cases the success is attributed to the national PFM programme that has been supported, to a great extent, by the Governments of Denmark and Finland though some support has also been obtained from the World Bank and the Government of Norway. For the last three years, 11 Districts have been added in the programme making a total of 69 Districts receiving PFM support. Furthermore, experience shows that there has been an increasing demand from non-PFM districts seeking for support. The key collaborators namely WWF and TFCG have also played a significant role in scaling and rolling up PFM to new areas. Existing data suggest

### Impacts of PFM on Local Communities' Livelihoods

The impact of PFM on peoples' lives lies in the benefits they obtain in the course of protecting and managing the forests and woodlands. Another value arising from participatory approaches is to reduce illegal activities in protected FRs and in Tanzania some efforts are being undertaken to curb illegal logging and at the same time enabling the local communities to benefit from forest and woodland resources available within their areas. For example, the *Mpingo* Conservation and Development Initiative (MCDI) which works with villages in Kilwa District, Lindi region, aims at





conservation and sustainable utilization *Mpingo* trees (*Dalbergia melanoxylon*) thereby enabling local communities to become the main beneficiaries of their forest resources protection, conservation and management efforts. The MCDI goal is to assist the villages owning woodlands with ample volumes of *Mpingo* to take control of forest operations including using Forest Stewardship Council (FSC) certification rules and regulation. The area under the FSC certified forest in four villages rose from zero in 2008 to over 80,000 ha in 2011 and is projected to increase to 120,000 ha in 2014. The income from trading timber or wood increased from zero to USD 50,000 and is projected to USD 80,000 in 2014. Income to four villages in 2012 was TZS 95,169,058 (about USD 32,266) from 706 m<sup>3</sup> including other species and *Mpingo* accounted for 67% of total timber/wood sold. The village spent the money on community infrastructures like water borehole, houses for Nurses, village offices and provision lunch to school pupils.

To what extent do rural dwellers depend on forest environmental resources for livelihoods? Some studies conducted in 17 developing countries showed that about 22% of the total income of rural dwellers is derived from forest environmental resources (Vedeld *et al.* 2007). It was further noted that forest environmental resources have strong equalizing effects on local income distribution because several households are engaged and benefiting. For example, undertaking agroforestry practices/technologies, beekeeping activities or butterfly farming (the case of Amani in Muheza District, Tanga region); collection of insects, mushrooms and vegetables for household use and selling) enable many farmers to improve their livelihoods. In Tanzania, through PFM villagers, local communities and other key stakeholders including the civil society organizations (NGOs and CBOs) as well as the private sector have been engaged in conservation of natural forests and

woodlands. The villages and communities adjacent to forests have over the years been sensitized and understood the importance of their engagement and participation in forest resources conservation and management

Experience shows that apart from agriculture, forests are the greatest generator of environmental income for the poor communities all over the world. For instance, through PFM approaches, six villages in Amani Division, Muheza District in Tanga Region have since 2003 been using environmental resources to improve their livelihoods. With technical support from TFCG, the villagers were able to embark on butterfly farming. In 2006, two more villages joined making participating villages to six. By end of 2012, about 25% of the village communities were undertaking butterfly farming, 55% being women collecting species of butterfly on demand from the nearby forests. Between 2004 and 2010, the farmers received a total of USD 291,208 (TZS 442.252 million) from selling a total of 274,266 pupae to Europe and USA. This initiative has helped those families taking an active part in butterfly farming to improve their livelihoods.

Payment for environmental services (PES) schemes including water resources services from catchment forests and other watershed areas as well as carbon dioxide sequestration and the Reduced Emissions from Deforestation and forest Degradation (REDD+) are potential areas for improving livelihoods in the rural areas. Global discussion on REDD+ started December 2007 in Bali, Indonesia during 13<sup>th</sup> Conference of Parties of the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol. So far no viable conclusions have been reached to allow payments to local communities through REDD+ mechanisms. However, some REDD+ pilot work in Tanzania has been undertaken. For instance, TFCG is engaging local communities in Kilosa and



Kilwa Districts regarding approaches to Monitoring Reporting and Valuation (MRV); the Jane Goodall Institute (JGI) facilitated seven villages adjacent to the Masito-Ugalla forest and through PFM approaches, the villagers have managed to protect the forest against illegal activities and preserved the forest ecosystem as an important carbon sinks. Through the villagers' efforts, the Norwegian Embassy in Dar-es-Salaam rewarded the seven villages with TZS 320 million as a motivation to do better in the future.

In some locations, PFM has led to regeneration of badly degraded forest and woodland areas to the extent of increasing natural vegetation cover to attract wild animals. This increases the value of forest and woodland resources under PFM initiatives with benefits eventually accruing to local communities such as bush meat and tourism. Bush meat provides an important source of animal protein and in some cases cash income.

## **CHALLENGES**

Implementation of PFM initiatives is not easy as we might think. However, some successful cases demonstrate that unless the communities are educated, well sensitized and made aware that the national forest policy and the forest legislation provide room for their engagement and would ultimately benefit from forest conservation efforts, the pace of PFM to impact on conservation and sustainable development may remain low. On the other hand, it is encouraging to see that CBFM has taken the right direction and rapidly making the communities the managers of their forest and woodland resources and benefits are forthcoming. While CBFM is trying to forge ahead, JFM approaches appear to face some challenges as follows:

(i) The slow pace to finalize and formalise the mechanism for sharing benefits between the Central Government or Local Authority (District Councils) on the one hand

and communities on the other. In the absence of the benefits sharing framework, signing of JFM Agreements (co-management) cannot be effected accordingly because most of the communities engaged in managing forests on behalf of the Government must have the legal basis for doing so. The number of community groups that are receiving substantial incomes from sustainable forest harvesting remains low however. This is due to a number of reasons, including the legal procedures for villagers to harvest and sell timber (need for a special forest hammer) and permits for production and selling charcoal from village forest land. Hopefully, the Government will address this matter with due consideration and utmost urgency;

- (ii) Inadequate capacity within the communities or village leadership not competent enough to handle environmental issues for the betterment of the whole community. For that matter, they need constant assistance and follow-up. However, without good progress on benefit sharing mechanism, the future of JFM remains uncertain. The capacity of the village or community must be improved to effectively handle plans and field operations accordingly. The Village Government is the main governing body assisted by the natural resources or forest committees but sometimes trouble shooting arises especially when struggle for power arises and individual interests vividly become upfront and therefore jeopardizes community benefits. Struggle for power at the village or local community level could affect the political legitimacy and endanger good forest governance structures;
- (iii) Making logging conform to the principles of SFM is indeed a dilemma. There is need to clarify the natural resources sector



responsibilities between the Central Government (MNRT/TFS) and Local Government authorities (District Councils/village Government) including those of PMO-RALG particularly in forest resources conservation and management and revenue collection and benefits sharing;

- (iv) How to strengthen community forest enterprises and make them work successfully so that the impact on improving rural livelihoods could be felt; and
- (v) How to make PES including payments for REDD+ mechanisms to forest adjacent local communities a reality. The issue is will these schemes benefit the needy and make more trees alive than dead?

## **WAY FORWARD**

The need to learn from one another through best practices cannot be overemphasized. For example, community based forest entrepreneurs, where it has worked well or where it has not worked out well: coming together and exchanging experiences for building a better roadmap for attaining good performance as far as SFM and livelihoods improvement is concerned is considered useful.

**Charcoal industry:** Although results from NAFORMA indicate low demand for charcoal in rural areas, in urban areas it is the most dependable source of energy for cooking. It is big business such that charcoal production and trading is an industry considered to employ many people in rural and urban areas. The demand for charcoal in Tanzania and possibly in some other countries in Eastern and Southern Africa is extremely high due to inadequate alternative cooking fuels that are easily available and affordable. According to the World Bank (2009), the charcoal industry in Tanzania is worth about USD 650 million and about half of

that is traded and consumed in Dar-es-Salaam alone. PFM approaches should capitalize on this, especially the huge woodfuels market, as an opportunity to fight poverty. Through PFM, villagers could be encouraged to establish fast growing trees for future woodfuels production to earn money.

**Agroforestry:** The PFM approaches should include, in a wider context, the aspect of landscape management with the view to improve food security, enhance soil conservation and expanding the farmers' options for earning money. ToFs may contribute to sustainable rural development goals including livelihood and as a source of food and income to farmers. Agroforestry systems in various landscapes offer opportunities for multiple benefits to the farmers to earn substantial and sustainable income mainly through tree planting and including ecological benefits to crops i.e. improving soil conservation and fertility and to livestock as a source of fodder for feeding the animals.

**Forest Governance and Accountability:** The need for credible leadership cannot be over-emphasized. In future, PFM should emphasize capacity building at the village level and also educate the villagers on the need to have leaders with good vision to advance the village community through proper use of natural resources that are available within the village land. Therefore, effective conservation and management of forests and biodiversity should hinge on excellent system and mechanisms for forest law, rules and regulations enforcement including village/community by-laws. However, for this to happen, there must be good leadership with credible integrity and highly accountable to the Village Council or the community. Villagers' effective participation and ensuring good forest governance through power sharing between local authorities, local institutions including traditional and influential leaders as well as taking the role of the civil



society organizations in consideration are crucial elements. Is the village or community leadership participatory and embracing or it is the chairperson and a few others who do it all without involving the rest of the Village Council Government and the entire community? To what extent are the villages' leadership transparent and is a good system of information sharing amongst the villagers in place or not? Experience shows that villages with bad leadership, corrupt practices and misuse of authority take place thereby making natural resources to benefit a few individuals and in most cases being people from outside the village boundaries.

### **CONCLUDING REMARKS**

The Government capacity to carry out exclusively forest and woodland resources conservation and management including improved forest governance is not expected to grow to satisfactory levels within a foreseeable future. In that context the importance of involvement and engagement of other stakeholders to back-up Government efforts to secure protection of natural resources cannot be overemphasized. Thus, PFM approaches and technologies will continue to expand across the country with strong support from the Government especially the MNRT and Development Partners. Despite the fact that areas of forests and woodlands under PFM approaches are increasing with additional villages being involved, the pace of spread of adoption of PFM initiatives in many parts of the mainland is still slow. Many areas of forests and woodlands on village land are not legally conserved and protected to ensure good forest governance and sustainable uses that would enable the villages and/or communities to benefit from those natural resources. Based on the fact that most of the forests in villages are unreserved and coupled with increasing threats from deforestation and forest degradation due to uncontrolled human activities such as annual forest fires, expansion of agricultural fields, overstocking livestock

associated with freelance grazing and rampant tree cutting for poles, timber, firewood and charcoal needs, it is important that PFM initiatives be emphasized as a mechanism to reduce loss of forest cover.



Plate 2: Village council members and researchers on PFM matters. Source: FBD (PFM Unit, 2012).

Through CBFM, villages with ample forest resources are most likely to enhance their livelihoods through declaration of village forest reserves and manage them for economic gains. Some pilot work in Kilwa and Rufiji districts by the MCDI, in recent years, is demonstrating some positive evidence that forest management by the community itself appears to take full advantage of the economic opportunities that CBFM and global forest products markets offer. The need to scale up such efforts by stakeholders working in villages in the field of forestry and environment (NGOs, CBOs or Development Partners) cannot be overemphasized. Through such efforts the villages and local communities can benefit from forestry resources and therefore contribute to livelihoods and poverty reduction within the locality.

**Benefit sharing and JFM:** It is important that the Government (MNRT and other relevant authorities) speed up the decision on the mechanism on benefit sharing under the JFM arrangements and agreements. Once the mechanism on benefit sharing is adopted, the local communities adjacent to both Central Government and Local Authority FRs, will be motivated to



engage themselves on conservation and management of the FRs for the betterment of the environment and the communities as a whole. Furthermore, updates of forest policy and legislations be done regularly through consultations with the stakeholders

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