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Community-Based Forest Management in Tanzania: Strengths Weaknesses, Opportunities and Threats

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ABSTRACT

In developing countries, the failure of the policing model of forest management whereby the central government protected forest reserves by preventing local communities from using them led to the emergence of Participatory Forest Management (PFM). In Tanzania PFM takes two main forms: Joint Forest Management (JFM) whereby the forest is owned by the central government or district council and the local people are involved in conservation of the forest and Community Based Forest Management (CBFM) whereby the community is given the right to own and use the forest that is on the general land. In both JFM and CBFM the village is the focal point in management of the forest and hence this approach to forest management is referred to as village-based forest management in this paper (VBFM). The paper discusses the strengths, weaknesses, opportunities and threats of village-based forest management in Tanzania in the light of the origin and characteristics of villages and governance in the country. A historical account of forest management is given. Among the strengths are the government structure with strong villages for many years, willingness of people to participate in CBFM initiatives and community-village collaboration. The fact that the approach is exogenous both in conception and funding, its poor spiritual basis, inadequacy of technical knowledge at the community level, inequality in cost and benefit sharing, poor infrastructure and lack of legal documentation of the villages are seen as weaknesses of CBFM. Opportunities for CBFM include appropriate national policies and international conventions and funding initiatives for sustainable forest management. Threats to CBFM include land grabbing for bio-fuel production and other enterprises, conflict of interest with the district and higher-level government and poor governance. The paper concludes by suggesting the way forward for tapping the strengths and opportunities of VBFM and addressing its weaknesses and threats.

KEYWORDS: Decentralization, Devolution, Governance, Participatory Forest Management, SWOT analysis.

INTRODUCTION

For the first time Community-based Forest Management (CBFM) was initiated in 1990s in Tanzania, whereby Duru-Haitemba, Mgori and Suledo forest were the pilot project for CBFM initiation (Blomley and Ramadhani, 2007; Blomley and Iddi, 2009). CBFM was introduced to protect the forest from poor management and degradation through non- sustainable use (Rasu

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and Karki, 2009). Before CBFM came into action and implementation forests were under the control of the state through its forest departments. The right to use the forest was clearly stated in forest policy and forest act. The forest policy and forest act categorizes the forest into reserved and non-reserved forest. The reserved forest includes national parks and game reserves. The forest reserves are under the legal authority of either central government (National Forest Reserves-NFRs), District councils (Local Authority Forest Reserve-LAFRs) or village government (Village Land Forest Reserves-VLFRs, Private and Community Forest Reserve) (Blomley and Iddi, 2009).

Reserved forests are either designated for production such as timber, fuel wood, building poles, and charcoal making or protection of catchment and biodiversity values. The non-reserved forests are free accessed by any one within the community. They are important to the livelihood of the surrounding community in terms of provision of cultural monument, traditional medicines, fuelwood and wild food. In fact the non-reserved forests are poorly managed, but gain a little management from traditional and customary practices, which have a considerable number of sacred forests across the country (Blomley and Iddi, 2009). The pressure over non-reserved forest is great due to increasing population. This has resulted in over extraction of non-reserved forest leading to decline of the forest resource. In some cases, overuse of the non-reserved forest and the resultant resource depletion has forced forest users to invade the reserved forest.

The destruction of the reserved forests was acute due to distant location of the management authority (Moshi *et al.*, 2010). From the past experience, the forest policy excluded people from using and accessing the reserved forest by law and through supervision from the forest division staff. The reserved forest continued to shrink as a result of shortage of resources to maintain and control the forest resource (Moshi *et al.*, 2010). Thus the government initiated the formulation of new management scheme under the new forest policy.

The current forest policy of 1998 and new forest act have opened a way for changes in forest conservation and management (URT, 1998). The policy has included alteration in the roles of the forest department, local communities and other forest stakeholders such NGOs. The policy has handed more authority to the local communities to manage the forest with the logic that the local communities reside on the ground adjacent to the forest resources (Kanel, 2006; Ostrom and Nagendra, 2006 ; Pokharel and Byrne, 2009). The local communities require the forest for their livelihood (Poffenberger, 2000; World Bank, 1999), thus the assumptions were to include them in management, which will create long term managers than distant forestry authorities (MNRT, 2001; Moshi *et al.*, 2010). This brought an idea of participatory forest management among all forest resources within the community, while CBFM being among them (Ganjanapan and Kaosa-ard, 1995; Wittayapak, 2002).

CBFM refers to any forest management regime in which local people play a major role (MNRT, 2001; Agrawal and Chhatre, 2007). CBFM is applied to any kind of forest either rich or poor in biodiversity, intact or degraded, large or small, moist montane, woodland or mangrove forest, reserved or unreserved forest (MNRT, 2001). In Tanzania CBFM forest cover an area of about 2.2 million hectare which operate in 1440 villages of mainland Tanzania (MNRT, 2008b). Exercising CBFM does not create new institutions but build on the existing institutions whereby

the village is the central institutional framework for rural communities development (MNRT, 2001).

In addition, there is evidence that decentralized forest management through CBFM improves local livelihood and sustainable forest resource (McDaniel, 2003; Olsson *et al.*, 2004; Agrawal and Chhatre, 2007). For many CBFM undertaken have demonstrated that effective local people development and proper forest management resulted from decentralization of community forest resources (Mitchell, 2005; Hoare, 2010).

CBFM strengthens community participation in conservation and sustainable management of the forest ecosystem in the community land (WWF, 2002; Angelsen and Wunder, 2003; Smith and Maltby, 2003; Maginnis and Jackson, 2005; Hoare, 2010). This has been achieved through encouragement of the local community to participate in forest protection to enhance ecological integrity and human well being. Also CBFM has encouraged community cohesion, by recognizing individuals in the community to be the owners of the forest on community land.

Under CBFM land tenure is communitarian in the sense that individuals in the community are motivated to involve in voluntary activities organized by the village environmental communities as well as village council. Moreover CBFM facilitates to raise environmental awareness and knowledge among the local people as a result of unity formed from being responsible of protecting the common property. In CBFM the management of the forest resource is more democratic and focuses on bottoms up approach of forest resource management. Local people are involved in every step of the forest management resulting to development of leadership interest and skills through village meetings, seminars, workshops and co-learning methods with researchers (Lynam *et al.*, 2007) such as participatory geographical information system (Minang, 2003; Mlenge, 2004).

CBFM strengthen the use of indigenous knowledge in natural resource management. Indigenous knowledge has demonstrated success among the Sukuma and Pare people in Tanzania (Mlenge, 2004; URT, 2006). The CBFM approach applied by Sukuma is famous known as Ngitili which is supported by HASHI project in Shinyanga while “mpungi” or “mshitu” is conservation of clan forest in North Pare (URT, 2006). “Ngitili” have ensured the community to regain the lost forest habitat, biodiversity, and has increased the output of the forest products such pasture, fuelwood, traditional medicines, and watershed conservations (Mlenge, 2004).

CBFM provide opportunities for the local poor who reside in rural areas to gain tenure right over the forest. Not only CBFM have provided employment to local poor in collection of Non Timber Forest Products (NTFPs) and in forest product processing unit but also have enabled the local poor own share capital in cooperatives and companies that deals with forest products (Pandit *et al.*, 2009; Hoare, 2010). However statistics on contribution of NTFPs in increasing household income are always not given priorities or are even not documented (Chopra, 1994; Prasad and Bhatnagar, 1998,). Moreover the benefits from CBFM are not only increases the total household income but also decrease income disparities between rich and poor people (Kant *et al.*, 1996; Malla, 2007; Blomley *et al.*, 2008; Lund and Treue, 2008; Maharjan *et al.*, 2009; Lund, 2007).

In addition to income opportunities, CBFM has empowered local people in particular women to take part in decision making process, although women participation is not often amazingly high but appreciated for their responses to CBFM (Outreach, 1998). This has increased confidence among the stakeholder to lead the forest resources around them, because the new forest regime CBFM enables the local people to share the same platform with senior foresters.

Decentralization and devolution of forest resources under CBFM

The village is a unique institution on conserving and monitoring of the forest under CBFM. In Tanzania villagisation took place as far as 1975 under socialism regime. The socialism government formed by late Nyerere passed legislation providing for the creation of the village assembly, which comprises all the adults in a village, and village councils comprising of 15 to 25 elected representatives headed by village chairman (Blomley and Iddi, 2009). The village council is powerful organ in the village and is concerned with all matter pertaining to resource management, allocations and distribution. The village council is linked to the central government via district council. The village council reports all its affairs to the district council, including approval of bylaws (Lissu, 2007). Likewise, the Forest Act No. 14 of 2002 (URT, 2002), makes a detail reference to the development of bylaws by village council through legal provisions issued under the local government Act No 7 of 1982 (URT, 1982). The forest act strengthens the role of village council through formation of village forest committee (Poffenberger, 2000). The village council is responsible for sub-committees of the overall village council and village assembly (Blomley and Iddi, 2009).

On the same perspective, village government plays a vital role in CBFM; it is the central institution for management of forest resource within and around the village. The CBFM utilizes village council to manage land on behalf of village assembly, and its tasks include demarcating the land, allocate the land to individual and land for conservation (Lissu, 2007).
The central government has devolved power to the community to take lead of the forest. This appeared to be the case due to the fact that the central government has failed to supervise, manage and enforce laws. In addition readiness of the community to take power over forest has been empowered by knowledge shared from the government and other stakeholders such as NGOs. The community under CBFM plays three important roles in managing the forest (MNRT, 2001). First, as owner manager, this is the case mostly in VLFRs, and CFR (Community Forest Reserves) whereby the community has possession right while offering minimal supervision. Moreover, in this category the forest is reserved for watershed and biodiversity conservations. Secondly, as designated managers, in which the community is assigned to be the official manager of their own forest while forest area placed under this category is termed as VFMA (Village Forest Management Area). To add more the community has more responsibilities over affairs concerning the forest while gaining minimal government operational role. Third, as the core manager, in this category the community collaborate with the government in management of the forest. It occurs in areas where the role of the government is still required such as in cases of commercial plantations. However analysis carried by Agrawal and Chhatre (2007) have suggested that closely involvement of the government officials is negatively associated with efforts to protect and manage forests sustainably.

Before CBFM, forests were governed by the state and forest management was centralized with the notion that the state is the best forest manager, developer and protector that would apply scientific management systems (Nanang and Inoue, 2000). The governance of the forest was left on hands of professional foresters such as District Forest Officers (DFOs) and experts from government and recognized institutions. However, this government regime did not last long due to lack of transparency and accountability in utilizing the forest and exclusion of local communities from accessing the forest, which led to increased illegal logging, forest encroachment, frequent forest fires and poaching activities (Gilmour *et al.*, 2005; Agrawal and Chhatre, 2007; Malla, 2007; Hoare, 2010). Failure to address these problems led to an idea of including the local community in all processes of management and decision making over the conservation and sustainable use of the forest resource in CBFM (Gilmour and Fisher, 1998; Kijtewachakul *et al.*, 2004).

The forest resources under CBFM is governed by the local community themselves with great assistance from the village government through village councils. While the village council marks and registers the forest under CBFM, the village assembly forms the village environmental committees which are responsible with guarding the forest and enforcing bylaws formulated by the village council (MNRT, 2001). To ensure safety of the forest resource, penalties have been set aside for those who violate the bylaws (Lund, 2007 -a).

Participatory forest management

Participatory Forest Management (PFM) in Tanzania takes two forms either CBFM or JFM (Joint Forest Management) (URT, 2006). PFM have been accepted to operate among the forest based community. It is used as a tool for overcoming environmental conflict, push beyond political polarization and address complex environmental problems (Gibson and Koontz, 1998; Leach *et al.*, 2002 ; Weber, 2003 ; Nelson and Blomley, 2007). However there still argument to which PFM type can produce protective and scientifically sound forest management strategy (Coglianese, 1999), the choice to which PFM type to use relies on the range of interests (Singleton, 2000) and the regulatory stakeholders are in facts relinquishing their authority over and responsibility for forest protection (Kenney, 1999).
The main stakeholders under PFM are the community through CBFM and the government plus community and NGOs collaborate through JFM (Ianni *et al.*, 2009). The government is an important organ in PFM. The government alone has failed to protect and manage the forest sustainably before local people. However the argument is why PFM have shown to be useful in some areas while worse in some other areas? Perhaps the PFM process within and between the stakeholders have been affected by factors such as issue definition, resources distribution, committee structure, and decision making process (Sherman, 2005). In areas where PFM is successful, there have been considerations of equity among the stakeholders, through equal sharing of incentives from the forest under PFM. Equity is an important factor in any part of the PFM framework especially in involving the local poor in decision making. However the role of involving the local poor have been emphasized in several studies (Blomley and Ramadhani, 2007; Meshack and Raben, 2007), but Koontz et al., have discussed in detail the role of the government in any collaborative management of resources such as forest, and watershed. The government involve in PFM at different level as follower, encourager, or leader (Sherman, 2005).

The government is viewed in two different faces, as an institution or an actor. Firstly, when the government is looked as an institution, it comprises an administrative structure, processes, rules, and norms that constrain local community from PFM. Secondly, when the government is concerned as an actor, it comprises of individuals appointed or hired within the institution. However both serves to implement the government roles but also distinction between them allows for the real world variation in the balance between institutions constraint and actor discretion, personality and skills (Sherman, 2004).

STRENGTHS OF CBFM

Long history of villages

Formal villages were formed since 1975 in Tanzania and thus have a relatively long history. Through the years, the villages have gained a lot of experience in governance issues. Villages have been the centre of organization for production activities, security issues and social and cultural events. Especially during early stages of villagisation, production used to be organized at the village level. There used to be village production projects including a village farm and the supporting equipment such as tractors and lorries. Initially these projects were very successful. There was also training for security at village level which was called "*mafunzo ya mgambo*" in Kiswahili. The training involved every village who was 18 years and older. Villages were also involved in implementing adult literacy programmes, which adults who had not had opportunity to go to school while children were taught how to read and write. Although these activities have deteriorated in quality and quantity in villages over the years, their legacy is still strong in the hearts of the people and the potential of the village to be used as unit of organization that was demonstrated during the period of strong village involvement is still there.

Willingness of people to participate in CBFM

CBFM has been accepted positively by people in Tanzania. The indicators of willingness of people to participate in CBFM include the lack of demonstrations and organized resistance against CBFM, the large number of villages that have started CBFM projects and free participation of people in CBFM activities such as forest patrol.

Community collaboration

CFBM establishment needs collaboration among communities. The collaboration is needed in setting out or recognizing boundaries of different village forests and in ensuring that forest conservation that is carried out in one village is not undermined by neighbouring villages. The existing collaboration among villages has made it possible for demarcation or recognition of village forest boundaries and for village forest protection. Although it is possible to have conflicts among local communities (Prasad and Kant, 2003), large number of successfully demarcated CBFM projects in Tanzania points contrary to the prevalence of the conflicts.

Weaknesses of CBFM

Exogenous origin of CBFM

CBFM is exogenous both in conception and funding. The concept was borrowed from other parts of the world particularly India and Nepal, where CBFM was initiated and found to work. Local people expectation over CBFM may either be or not be in line with the regional and international policies as well as the environment funding may request the local community project to align with regional priorities, yet such alignment may either be weak or may not coincide with regional goals (Shindler *et al.*, 1999; Agrawal, 2002). However CBFM are set to fulfill the expectations of the community and state and other stakeholder. For instance the community may expect CBFM to offer solution over the shortage of fuel wood, local medicine and pastures. While the state may be interested on CBFM because it protect forest biodiversity, and reduce forest degradation. The conflicting argument is that the local people will be eager to protect particular tree species which are important for their utilization while the international and the state are concerned with creating highly diversity forest ecosystem. In addition the local people may have short term plan in forest management, in particular for resource utilization such as wood and timber while the state and international organizations priority may be CBFM for conservations in order to secure long term benefits such as to restore water catchment.

Poor spiritual basis of CBFM

CBFM is supposed to work through protection of the forest by the people through the use of a mix of institutions. However, because the policing model has failed at the national level, one would not expect it to be very successful at the village level. Thus it would be interesting for forest protection under CBFM to be reminiscent of the protection that was achieved traditionally through spiritual means such as that applies to sacred groves. Traditionally forests were protected because it was believed that they were important to life in a more spiritual sense than the way they are currently regarded, which is a more material perspective. Thus people would not clear forests because they thought they were related to rainmaking and general good of the environment; and actually performed their rituals in the forests. With the current change in spiritual thinking of people due to the kind of education that they have received and the prevailing religious teachings, it is difficult to achieve the kind and level of forest protection that was traditionally achieved.

Inadequacy of technical knowledge at the village level

With the erosion of traditional systems of knowledge and management, modernization may help in empowering people. However, Tanzanian villages suffer from low levels of technological knowledge and modern education. Apart from knowing how to read and write, effective forest management would demand knowledge of at least accounting and book keeping so as to administer the benefits and costs of forest management.

When it comes to more advance technical issues, the villages become even more disadvantaged. The ability of the village to assess forest resources and prepare documents that may be used in national and international negotiations is virtually non-existent. This makes the villages dependent on external experts for issues that are of technical nature. Thus the destiny of the forests in CBFM is somehow at the mercy of these experts.

Inequality in cost and benefit sharing

There are problems of sharing of costs and benefits of CBFM. These are related to level of education, leadership opportunity, connection with people from outside and poverty level. People with more education, leadership positions, connection with people from outside and who are better off benefit more from CBFM and at lower cost.

Poor infrastructure in rural areas

Of particular interest here are issues related to forest administration and especially record keeping. Village offices are poorly furnished and some are not well sheltered. This makes it difficult to keep records.

Lack of legal documentation of the villages

The new Land Act and Village Land Act of 1999 recognise the following land types: reserved land (e.g. protection areas), village land, which declared as being the land falling under the jurisdiction and management of a registered village, and general land, which is neither reserved land nor village land e.g. all urban areas. Although the Land Act and Village Land Act of 1999 allow for villages to survey and demarcate land as village land, very few villages have been surveyed and legally documented. Most villages also do not have documented land use plans. This makes the villages unable to make major decisions with their land until they survey the villages.

OPPORTUNITIES FOR CBFM

Appropriate national policies and international conventions
Most major policies in Tanzania have been changed in favour of involvement of local communities in management of resources. In particular, the national forest policy of 1998 has two major statements that promote PFM as show in Box 1.

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Box 1: Statements that support PFM in National Forest Policy of Tanzania of 1998

Policy statement number 5

To enable sustainable management of forests on public lands, clear ownership for all forests and trees on those lands will be defined. The allocation of forests and their management responsibility to villages, private individuals or to the government will be promoted. Central, local and village governments may demarcate and establish new forests reserves.

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Local communities will be encouraged to participate in forestry activities. Clearly defined forestland and tree tenure rights will be instituted for local communities, including both men and women.

The other policies that have been changed to put communities in the central position include the Local Government Reform (1998), Gender Policy of 2001 and the Land Policy of 1995, Beekeeping Policy of 1998, Fisheries Policy of 1997, Mineral Policy of 1998, Agriculture Policy of 1997, Wildlife Policy of 1998 and Water Policy of 2002.

In addition to national policies, there are international conventions that recognize the role of local people in resource management and hence favour CBFM. These include the Convention on Biological Diversity and the Ramsar Convention on Wetlands. This means that there is political will at the international level to support CBFM. For instance, the Convention on Biological Diversity has three objectives: (i) the conservation of biological diversity; (ii) the sustainable use of its components; and (iii) the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. The interests of local communities are catered for by all of these objectives of the convention.

Funding initiatives for sustainable forest management

There are many funding initiatives for sustainable forest management. These initiatives recognize the role of local communities in forest management and hence support CBFM. For example, the United Nations Collaborative Programme on Reducing Emissions from Deforestation and forest Degradation in Developing Countries (UN-REDD) has an explicit strategy for involvement of local people in its projects whereby indigenous peoples and civil society organizations are represented both as members and as observers to the UN-REDD Programme Policy Board, providing leadership, direction and decisions on financial allocations to ensure the overall success of the UN-REDD Programme.

Threats to CBFM

CBFM is threatened by lack of political strength within the forest sector to win out over other interest (Hoare, 2010). The local community fostering CBFM are poor and weak over the government decisions. In many occasions where land is required for private investment businesses, the land under CBFM have been grabbed from the local people authority and developed to other land uses which has low return to development, livelihood of the local people and sustainability of forest biodiversity. CBFM is also threatened by establishment of new plantation of biofuel and cash crops such as *Jatropha curcas*, which have short term benefits as compared forest. Also opening of mining in many of the forests which are already under CBFM are the limiting factor over attainment of CBFM goals and objectives.

The way forward with CBFM in Tanzania

In general, to secure the future of CBFM in Tanzania, the government needs to address the weaknesses and threats of CBFM. The current efforts of the government to increase access to formal education at primary and secondary level is a good move in improving the technological understanding of villagers. However, because the education is general and does not cater for specifics of forest management, issues related to forest management have to be more emphasized in the curriculum. Furthermore, the government has to make efforts to reduce dependence on forest resources for livelihoods, which results in overexploitation of forests and

depletion of forest resources. Villages have to be surveyed and documented and facilitated to prepare land use plans.

References

Agrawal, A., 2002. Common resources and institutional sustainability. In: Ostrom, E., Dietz, T., Dolsak, N., Stern, P.C., Stonich, S., Weber, E.U. (Eds.), The Drama of the Commons, National Academy Press Washington, DC, pp. 41–85.

Agrawal, A., Chhatre, A., 2007. State Involvement and Forest Co-Governance: Evidence from the Indian Himalayas. St Comp Int Dev 42, 67–86.

Angelsen, A., Wunder, S., 2003. Exploring the forest-poverty link: Key concepts, Issues and research implications. CIFOR, Bogor, Indonesia.

Blomley, T., Iddi, S., 2009. Participatory Forest Management in Tanzania: 1993-2009: Lessons learned and experience to date. Ministry of Natural Resources and Tourism United Republic of Tanzania, Dar es Salaam, pp. 1-70.

Blomley, T., Pfliegner, K., Isango, J., Zahabu, E., 2008. Seeing the wood for the trees: an assessment of the impacts of participatory forest management on forest condition in Tanzania. Oryx 42, 380-391.

Blomley, T., Ramadhani, H., 2007. Participatory Forest Management in Tanzania- an overview of status, progress and challenges ahead. The Arc Journal 21, 3-5.

Chopra, K., 1994. Valuation and Pricing of Non-Timber Forest Products: A Study for Raipur district of Madhya Pradesh in valuing India's natural resources. SPWD, New Delhi.

Coglianese, G., 1999. The limits of consensus. Environment 41, 28–33.

Ganjanapan, A., Kaosa-ard, M., 1995. Evolution of land pioneering for agriculture: A case study of upper nothern region. Thailand Development Research Institute (TDRI), Thailand, p. 167.

Gibson, C., Koontz, T., 1998. When "Community" Is Not Enough: Institutions and Values in Community-Based Forest Management in Southern Indiana. Human Ecology 26, 621-647.

Gilmour, D., O'Brien, N., Nurse, M., 2005. Overview of regulatory framework for community forestry in Asia. First Regional Community Forestry Forum (RECOFTC).

Gilmour, D.A., Fisher, R.J., 1998. Evolution in community forestry: Contesting forest resources. In: Victor, M., Lang, C., Bornemeier, J. (Eds.), Community forest at crossroads: Reflections and future directons in the development of community forestry., Bangkok, Thailand, pp. 27-14.

Hoare, A.L., 2010. Community-Based Forest management in the Democratic Republic of Congo: A fairtale or a viable REDD strategy? Forest Monitor: Rights, Research Policies, People., DRC (Democratic Republic of Congo).

Ianni, E., Mattenet, M., Geneletti, D., Malizia, L., 2009. Community-based forest management in the Yungas biosphere reserve, Northern Argentina. Environ Dev Sustain, 1-16.

Kanel, K.R., 2006. 'Nepal's Forest Policies on Community Forestry Development: the government Perspective'. In: Gyamtsho, P., Sing, B.K., Rasul, G. (Eds.), Capitalisation and Sharing of Experiences on the Interaction between Forest Policies and Land use Change in Asia: Linking People with Resources. ICIMOD, Kathamandu.

Kant, S., Nautiyal, J.C., Berry, R.A., 1996. Forests and economic welfare. Journal of Economic Studies 23, 31-43.

Kenney, D.S., 1999. Historical and sociopolitical context of the western watersheds movement. Journal of the American Water Resources Association 35, 493–503.

Kijtewachakul, N., Shivakoti, G.P., Webb, E.L., 2004. Forest Health, Collective Behaviors, and Management. Environmental Management 33, 620-636.

Leach, W.D., Pelkey, N.W., Sabatier, P.A., 2002 Stakeholder partnerships as collaborative policymaking: Evaluation criteria applied to watershed management in California and Washington Journal of Policy Analysis and Management 21, 645–670.

Lissu, T.A.M., 2007. Moving towards sustainable harvesting of village forests-experiences from Kiteto district-SULEDO Forest. The Arc Journal 21, 8-10.

Lund, J.F., 2007 -a. Is small beautiful? Village level taxation of natural resources in Tanzania. Public Administration and Development 27, 307–318.

Lund, J.F., 2007 -b. Is small beautiful? Village level taxation of natural resources in Tanzania. Public Administration and Development 27, 307–318.

Lund, J.F., Treue, T., 2008. Are We Getting There? Evidence of Decentralized Forest Management from the Tanzanian Miombo Woodlands. World Development 36, 2780-2800.

Lynam, T., De Jong, W., Kusumanto, T., Evans, K., 2007. A review of tools for incorporating community knowledge, preferences and values into decision making in natural resources management. Ecology and Society 12, 5.

Maginnis, S., Jackson, W., 2005. What is FLR and how does it differ from current approaches? In: IUCN (Ed.), Restoring forest landscape: An introduction to the art and science of forest landscape restoration. ITTO, Yokohama.

Maharjan, M.R., Dakal, T.R., Thapa, S.K., Schreckenberg, K., Luttrell, C., 2009. Improving the benefits to the poor from community forestry in the Churia region of Nepal. International Forestry Review 11, 254-267.

Malla, Y., 2007. Community-Based forest (natural) Resource Managgement: A Path to sustainable Environment and Development. Lessons from Three Decades of Experience and Future Challenges. RECOTFTC.

McDaniel, J.M., 2003. Community-based forestry and timber certification in Southeast Bolivia. Management and Policy 2, 327–341.

Meshack, C., Raben, K., 2007. Balancing Right, Responsibilities, Costs and Benefts in the Management of Catchment forests. The Arc Journal 21, 6-7.

Minang, P.A., 2003. Assessing participatory geographic information systems for community forestry planning in Cameroon: A local governance perspective. In. International institute for geo-information science and earth observation, Enschede Netherland.

Mitchell, R., 2005. Planting Trees, Building Democracy: Sustainable Community Forestry in Mexico. Environmental Issues in Latin America and the Caribbean, pp. 95-118.

Mlenge, W., 2004. An Indigenous Natural Resources Management System in Shinyanga. In: Nguo, J., Lusaka, N., Wagner, B., Nkando, M., Karimi, M. (Eds.). ALIN-EA, Nairobi, Kenya, pp. 3-56.

MNRT, 2001. Community-Based Forest Management guideline. Forestry and Beekeeping Division, Dar es Salaam, Tanzania, 86 p.

MNRT, 2008b. Tanzania Forest Sector Outlook Study: 2008-2018. In. Forestry and Beekeeping Division, Dar es Salaam, Tanzania, 142 p.

Moshi, E., Burgess, N., Enos, E., Mchau, J., Mejissa, J., Mhagama, S., Noah, L., 2010. 'Community-Based Forest Management' and 'Joint Forest Management' some beginning in the Ulugurus. In, Uluguru Mountains Biodiversity Conservation Project, Morogoro, Tanzania.

Nanang, M., Inoue, M., 2000. Local Forest Management in Indonesia: A Contradiction Between National Forest Policy and Reality. International Review for Environmental Strategies 1, 175-191.

Nelson, F., Blomley, T., 2007. Eating from the Same Plate:Intergrating Community Based Wildlife and Forestry Management. The Arc Journal 21, 11-13.

Olsson, P., Folke, C., Hahn, T., 2004. Social-ecological transformation for ecosystem management: the development of adaptive co-management of a wetland landscape in southern Sweden. Ecology and Society 9, 2.

Ostrom, E., Nagendra, H., 2006 Insights on linking forests, trees, and people from the air, on the ground, and in the laboratory In, Proceedings of the Academy of Sciences of the United States of America pp. 19224-19231.

Outreach, 1998. Social Impact Assessment of Western Ghats Forestry Project (KFD/DFID) in Karanataka with focus on JFPM Programme In, A study Report by OUTREACH, Bangalore.

Pandit, B., Albano, A., Kumar, C., 2009. Community-Based Forest Enterprises in Nepal: An Analysis of Their Role in Increasing Income Benefits to the Poor. Small-Scale Forestry 8, 447-462.

Poffenberger, M., 2000. Community and Forest Management in South Asia- A Regional Profile of the Working Group on Community Involvement in Forest management. IUCN

Pokharel, B., Byrne, S., 2009. Climate change mitigation and adaptation strategies in Nepal's forest sector: how can rural communities benefit? . NSCFP Discussion Paper No.7.

Prasad, R., Bhatnagar, P., 1998, . Non-Wood Forest Products of Central India. In, Paper Presented to the Workshop on Sustainable NTFP Management., Bhopal, India, Indian Institute of Forest Management.

Prasad, R., Kant, S., 2003. Institutions, Forest Management, and Sustainable Human Development – Experiences from India. Environment, Development and Sustainability 5, 353-367.

Rasu, G., Karki, M., 2009. A comparative analysis of Community -based Forest Managenet Policies in South Asia. XIII World Forestry Congress, Buenos Aires, Argentina, , pp. 18 – 23.

Sherman, D., 2005. Collaborative Environmental Management: What Roles for Government? Policy Sciences 38, 201-204.

Sherman, D.J., 2004. Collaborative Environmental Management: What Roles for Government? In: Koontz, T.M., Steelman, T.A., Carmin, J., Korfmacher, K.S., Moseley, M., Thomas, C. (Eds.), Resources for the Future. Policy Science, W.Washington, D.C, pp. 201-204.

Shindler, B., Cheek, K.A., Stankey, G.H., 1999. Monitoring and Evaluating Citizen–Agency Interactions: A Framework Developed for Adaptive Management. General Technical Report PNW-GTR-452 Pacific NW Research Station, USDA Forest Service.

Singleton, S., 2000. Co-operation or capture? The paradox of co-management and community participation in natural resource management and environmental policy-making. Environmental Politics 9: 1–21.

Smith, R.D., Maltby, E., 2003. Using the ecosystem approach to implement the convention on biological diversity: Key issues and case studies. IUCN, Gland, Switzerland.

URT, 1982. Local Government Act No 7. Dar es Salaam, Tanzania.

URT, 1998. The national forest policy. Ministry of Natural Resources and Tourism (MNRT), Dar es Salaam, Tanzania, pp. 1-38.

URT, 2002 The Forest Act No. 14 of 7th June 2002. Ministry of Natural Resource and Tourism, Dar es Salaam, Tanzania.

URT, 2006. Participatory Forest Management in Tanzania Facts and Figures. In. Forest and Beekeeping Division (FBD), Dar es Salaam, Tanzania, pp. 1-7.

Weber, E.P., 2003 Bringing Society Back In: Grassroots Ecosystem Management, Accountability, and Sustainable Communities. Cambridge, MA: MIT Press.

Wittayapak, C., 2002. Community as a political space for struggles over access to natural resources and cultural meaning. In: Dearden, P. (Ed.), Environmental protection and rural

development in Thailand: Challenges and Opportunities, White Lotus Press, Thailand, pp. 275-297.

World Bank, 1999. The World Bank and Forestry in India 1999. World Bank, Washington DC.

WWF, 2002. Forest Landscape restoration: Working examples from five ecoregions. World Wildlife Foundation (WWF), Bristol, UK: Deveton Press.