Effects of Institutional Change on Forest Resource Governance: A case of Chinene Forest Reserve in Bahi District, Tanzania

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ABSTRACT

The study assessed the effects of institutional change on forest resource governance. The study was conducted at Chinene Forest Reserve (CFR) at Bahi District, Tanzania. Primary data were collected through household questionnaire survey, key informants interview, and focus groups discussion, while secondary data were collected through documentary review. Both descriptive and inferential statistics were employed in data analysis. The levels of resource governance differed significantly before and after decentralization. About 61% of the respondents perceived that overall forest resource governance (good governance) had improved after decentralization implying that forest resource governance improved in terms of rule of law, transparency, accountability and equity. The study concluded that institutional changes involving community participation in forest resource governance is one of the best options in improving forest resource governance, hence sustainable forest management.

Keywords: Institutional change, forest resource governance, transparency,

1.0 INTRODUCTION

Tanzania's forests and woodlands, cover about 33.4 million hectares (ha), which is about 38% of the total land area of 88.6 million ha (FAO, 2010). These forests and woodlands support the livelihoods of 87% of the poor populations who live in rural areas (CIFOR, 2004). Of the total forest area, about 13 million hectares cover reserved land in which there are 621 forest reserves and village land forest reserves, of varying size from 3.0 to 580,000 ha (MNRT, 2005). Forest reserves are managed for protection, production or both and they may be under the jurisdiction of central government, local government, community and private (URT, 1998).

Management of forest resources in Tanzania, has gone through successive changes from colonial era to the present. These changes have altered the institutional structures, that were responsible for the management of the resources. During the colonial era (both German 1886- 1918 and British 1918 -1961), the property rights and power structures of the local communities were interfered, land alienation was done, while customary land ownership was transferred to the crown (The Governor). This transformation was done through the enactment of the land tenure ordinance number 3 of 1923 (commonly known as Land Ordinance Cap 113) (Bagachwa *et al.,* 1995). After independence, most of the colonial policies related to management of forest resources were inherited by the sovereign government. The most important radical change took place in the 1970s, when the implementation of Ujamaa policy which reinforced state control over the natural resources.

Local institutions, which were responsible for the management of these resources were further marginalized (Bagachwa *et al.,* 1995). Since then, there has been continuous socio-cultural, economic, macro and sectoral policy reforms that have influenced considerably the institutional arrangements, for management of forest resources. In the 1980s, Tanzania aiming at improving its economy, introduced market oriented economic reforms which brought in several macro and sectoral policy changes (Erickson, 1993). The reforms which include National Economic Survival Programme (NESP) (1981- 82); Structural Adjustment Programmes (SAP) (1982 – 1985); Economic and Social Action Programme (ESAP) (1989 – 92) stimulated further changes in local people's economy, market situation, ideology and livelihood strategies. The institutional set up of traditional

communities radically changed whereby private buyers and the market in general, exercised more influence which further led to individualism and consumerism behavior. Despite the radical changes indicated above governance and ownership of natural resources, continued to deteriorate as the government continued to have central powers in the management of resources (Manor, 1999).

In general, state control on management of natural resources failed (Bagachwa *et al.,* 1995) leaving an institutional vacuum. In response to this failure, decentralization and privatization policies, were adopted to pave the way for local governments to participate in managing natural resources (URT, 1998; URT, 2002). Decentralization, can be either horizontal or vertical. The former disperses power among institutions at the same level, while the latter allows selective administrative functions to lower tiers of authority. Chenene Forest Reserve (CFR) falls under vertical decentralization, where central government is not giving up all authority (Manor, 1999). In Tanzania, decentralization has dual objective; improving forest coordination, forest governance at local level or community livelihood (URT, 1998).

2.0 CONCEPTUAL FRAMEWORK

The conceptual framework (Fig. 1), focuses more on institutional changes and power relations in the management of CFR. The way the community, local government and central government interact to modify and change rules of the game (institutions). The framework, was developed to help to understand how institutional change can influence change in the management of natural resources . The conceptual framework, is based on the notion that forest resources are introduced to new rules, new norms, regulations, technologies, new actors and power relations which contest and merge with local institutions. In order to address the challenges, the forest users develop strategies to negotiate or transform the new institutions.
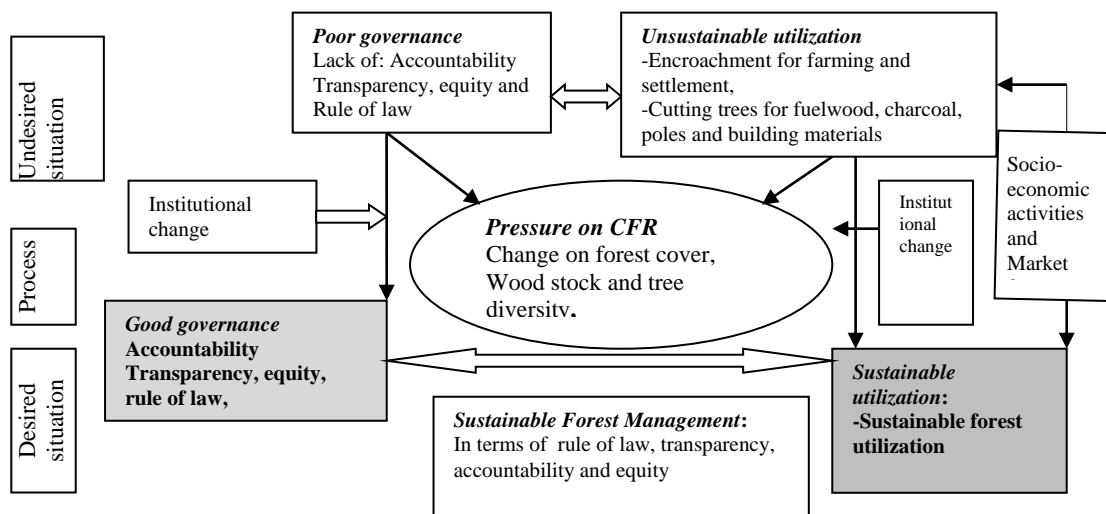
Figure 1: Conceptual framework underlying the study

The conceptual framework predicts that institutional change, that is after decentralization of Chenene Forest Reserve transformed forest governance in terms of rule of law, transparency, accountability and equity to sustainable forest management.

3.0 METHODOLOGY

3.1 Location of the study area

CFR is located in Bahi District, in Dodoma Region which is located at Latitude 4° to 8^oS and Longitude 35° to 37^oE (Fig.2). Bahi District, is one of the seven districts of Dodoma Region. Others are Kondoa, Chamwino, Dodoma Municipality, Mpwapwa, Chemba and Kongwa. The headquarters of the district, is located at Bahi ward which is 50 km away from Dodoma Municipality, along the highway to Singida from Dodoma town. On the East, the district shares its border with Chamwino District and Dodoma Municipal; Kondoa on the North, Iringa Region on the Southwest, and Manyoni District on the West. CFR is surrounded by four villages namely Babayu, Chenene, Mkondai and Mayamaya (URT, 2002).Two villages Babayu and Mayamaya were involved in the study due to the fact that these villages were more close to the CFR hence can detect the effect of institutional change on forest governance.
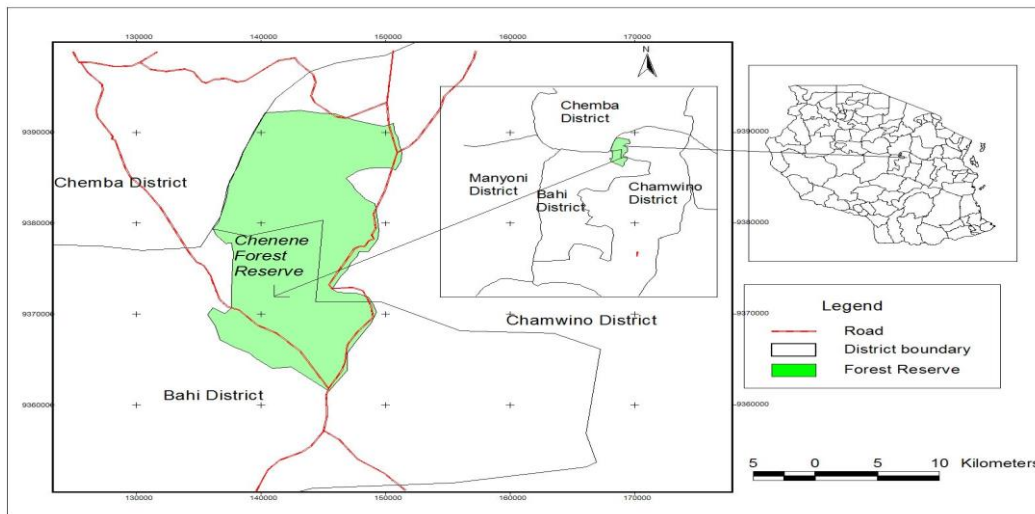
Figure 2: Location of Chenene Forest Reserve

3.2 Data sources

Both primary and secondary data were collected for the study. Primary data included socio-economic characteristics of respondents, perceptions of respondents on performance of local governance structures, status of the forest reserve and management of CFR. Primary data were derived from household structured questionnaire survey, key informants interview and focus group discussions. Household questionnaire was administered to 137 respondents selected randomly from selected villages using village register as a sampling frame. Key informants interview involved 18 key informants including village leaders (8), old people (8), District Natural Resource Officer and Forest Officers (2). Focus group discussions was conducted in each village, members in each FGDs had between 8 – 10 members. A total of four principles of forest governance developed by the United Nations was adopted. For each principle, between 3 – 4 statements were developed and given a score of 1 – 3; 1 being very poor to 3 being very good. These statements were included in the questionnaire whereby respondents were requested to rate the effect of institutional change on forest governance. Secondary data comprised of management history of CFR, Socio-economic characteristics, population dynamics and experiences on forest institutional changes on forest governance and their impacts. Secondary data were

mainly collected through documentary review of some reports, official documents and publications.

3.3 Data analysis

In order to assess the effects of the institutional changes on forest governance of adjacent communities at CFR, scores from local people's perceptions on effects of institutional changes on good governance, were computed following Mehta *et al.* (1998)**:**

Indicator score: calculated as sum of scores of each respondent divided by number of respondents.

Principle mean score: calculated as sum of scores of indicator scores in each principle divided by number of indicators.

Overall governance mean score: calculated by summing all mean scores of principles and divided by number of principles.

These mean scores were used for inferential statistical analysis.

The mean score calculated (from above), ranged between 1 and 3 which is similar to the adopted likert scale. Since the objective of the study was to assess whether local peoples' perceptions differ on the effects (improved or not) of the institutional changes on forest governance. Scale 2 was selected as a cutting point. This study assumed that, all respondents that ranked the effects of institutional changes as 2 or less did not have a positive attitude towards institutional changes reform. Therefore, all values equal to or below 2, were collapsed and assigned '0' as no improvement and values above 2 were collapsed and assigned '1' as improvement. In order to assess respondents' perception of effects of the institutional change on quality of governance (improved or not) non parametric, one sample (Person χ^2 test) was employed at 5% level of significance (Pallant, 2005).

4.0 RESULTS AND DISCUSSION

4.1 Effects of Institutional Changes on Legitimacy

The effects of the institutional changes on legitimacy, was examined by three-likert scaled items (Table 1) namely: i) Village Environmental Committee(VEC) acts in accordance with its mandate ii) VEC acts with an integrity and commitment iii) law enforcement and adhering to rules by people.

People's perception on performance on whether VEC acted within its mandate, was significantly improved after decentralization ($\chi^2 = 58.132$; p = 0.0001). About 53% of the respondents claimed that, performance to be at satisfactory level (Table 1) indicating that, an improvement in management, were at a satisfactory level. Likewise, on whether VEC acted with an integrity and commitment had improved after decentralization, and significantly improved ($\chi^2 = 11.381$; p =0.0001. Out of 55% of the respondents reported that, VECs integrity and commitment had improved at satisfactory level while 30% asserted that it did not improve (Table 1). The integrity and commitment, was reflected from the condition of forest and law enforcement. Furthermore, people's perception on effect of institutional change on law enforcement and compliance of rule of law by the people, were significantly different ($\chi^2 = 20.375$; p = 0.0001) indicating that was improved after decentralization (Table 2). The majority, 53% of the respondents asserted that, law enforcement and adherence to rules by people respectively, had improved which indicated that, the institutional changes enhanced law enforcement and people's willingness to follow rules and regulations.

Table 1: **Respondents' perception on the effect of institutional change on legitimacy**

Variable	Ranking	Before (BD)	After (AD)
1. VEC act in accordance with its mandate	Poor	30 (21.8)	10 (7.3)
	Satisfactory	24 (10.2)	73 (53.7)
	Good	-	-
Total		**54 (39.5)**	**83 (60.5)**
Mean score		**2.55**	**2.70**
Chi-square and P- values		**χ^2= 0.321; p=0.416**	**χ^2= 58.132; p=0.0001***
2. VEC act with integrity and commitment	Poor	19 (13.9)	11 (8.0)
	Satisfactory	17 (12.4)	76 (55.5)
	Good	6 (4.4)	8 (5.8)
Total		**42(30.7)**	**95 (69.3)**
Mean score		**2.52**	**2.57**
Chi-square and P- values		**χ^2= 0.321; p=0.416**	**χ^2= 11.381; p=0.0001***
3. Law enforcement and adhering to rules	Poor	17(12.4)	8 (5.8)
	Satisfactory	20 (14.9)	10 (24.1)
	Good	9 (6.3)	73 (53.3)
Total		**46 (33.6)**	**91 (66.4)**
Mean Score		**2.87**	**3.00**
Chi-square and P= values		**χ^2= 0.858; p=0.354**	**χ^2= 20.735; p=0.0001***

*Significantly difference at 5% level; BD = Before decentralization, AB = After decentralization; Figures in brackets are percentage.

This was supported even by the forest conditions and a few number of cut trees (disturbances) in the forest. For example, this study had found out that, 225 trees of pole size were cut in 120 plots with 0.07 ha size, in CFR. Agrawal (2005) found a significant relationship between law enforcement and forest condition for an effective forest management. IUCN (2004) reported that, among other factors, rule compliance depended on rule of law.

During FGDs the Forest Officer reported that "*after devolution of power illegal activities such as fire incidences, charcoal burning and timber harvesting declined as compared to the past when the management was under the central government.*'' This implies that after CFR devolved to Bahi District Council, local people become partner and guards of forest and therefore law enforcement and commitment to conserve forest resources had been enhanced (Table 1).

4.1.1 Effect on transparency

Three- three - likert scaled items were used to measure the effect of the institutional changes on transparency (Table 2) namely: decision making was open and a reason behind evident, information on performance is open and an appropriate form of VEC'S responsibilities were known.

The perceived effects of institutional changes on openness on decision making improved after decentralization, there was significant difference ($\chi^2 = 16.790$; $p < 0.0001$) (Table 2.) Majority of respondents (62.8%) claimed that, openness in decision making was good. Most of the information on decisions were delivered during the village general meetings. This implied that, leaders follow the procedures such as informing the public before spending the funds and displaying the information on the notice boards.

Out of 51% of the respondents said that, openness on information did not improve indicating that people did receive some information from their leaders on issues related to CFR. The performance was significantly different before decentralization ($\chi^2 = 32.834$; $p = 0.0001$) (Table 2). Most of the information was delivered during village general assemblies while the VECs met every month, village general assembly met after every three months (four times a year). However, most of the people did not have the attitude of seeking information, and sometimes they don't attend meetings hence failed to receive information.

Table 2: **Respondents' perception on the effect of institutional change on transparency**

Variable	Ranking	Before (BD)	After (AD)
1. VECs decision making is open and reason behind evident	Poor	20 (14.6)	3 (2.2)
	Satisfactory	3 (2.2)	13 (9.5)
	Good	12 (8-6)	86 (62.8)
Total		**35 (25.5)**	**102 (74.5)**
Mean score		**2.44**	**2.75**
Chi-square and P- values		**χ^2= 2.051; p=0.152**	**χ^2= 16.790 ; p=0.0001***
2. Information on performance is open and in appropriate forms	Poor	70 (51.1)	13 (9.5)
	Satisfactory	11 (8.0)	17 (12.4)
	Good	3 (2.2)	23 (16.8)
Total		**84 (61.3)**	**53 (38.7)**
Mean score		**2.80**	**2.16**
Chi-square and P- values		**χ^2= 32.834; p=0.0001***	**χ^2= 19.691 ; p=0.851**
3. VECs responsibilities are known	Poor	17 (12.4)	14 (10.2)
	Satisfactory	5 (3.6)	13 (9.5)
	Good	8 (5.8)	80 (58.4)
Total		**30 (21.8)**	**107 (78.2)**
Mean Score		**2.72**	**3.00**
Chi-square and P= values		**χ^2= 0.858; p=0.354**	**χ^2= 20.735; p=0.0001***

*Significantly difference at 5% level; BD = Before decentralization, AB = After decentralization; Figures in brackets are percentage

Furthermore, knowledge on VECs responsibilities among people differed significantly (χ^2 = 20.735; p < 0.0001) after decentralization. 78% of the respondents claimed that, knowledge on VECs responsibilities was good and the knowledge of VEC's responsibilities had improved (Table 2). The responsibilities of VEC were presented during the preparation of MoUs of which, one of the major responsibilities was patrolling forest and took actions on matters that were within their mandate.

The study has shown that, transparency had improved significantly. This indicated that, VEC's communicated with their constituency with the same degree of transparency which was important for the rule of law, accountability and equity (Lutz and Linder, 2004; Saunders *et al.,* 2008). From the key informants' interviews, it was learnt that, VECs reported monthly to the village governments (VG) while Bahi District Council produced monthly, quarterly, semi annual and annual reports on performance, against the management of CFR. But all the

information was not communicated to local people, mainly due to an absence of Ward Conservation Development Committees (WCDCs) organs, that facilitated dissemination of information such as performance reports. This indicated the lack of transparent especially at higher level.

4.1.2 Effect on accountability

Three-three likert scaled items were used to measure the effect of institutional change on accountability (Table 3) namely; mechanism of dissemination of information, answerability and representative's accountability.

Improvement on mechanism of dissemination of information was improved significantly after decentralization ($\chi 2$=18.717; p=0.000). Majority 59.9% of the respondents claimed that mechanism for dissemination of information had improved significantly after decentralization (Table 3). The major means of disseminating information is through meetings especially village general assembly.

On the other hand the respondents on whether answerability had improved differed significantly ($\chi^2 = 0.653$; p= 0.616) after and ($\chi^2= 0.653$; p=0.721) before decentralization. Substantial number of respondents (41.6%) said that answerability did not improved while 24.8% reported that answerability improved at satisfactory level (Table 3). VEC is answerable to villagers through village government, and based on FGDs, the village chairman said that " *VEC do present their report to their constituents as required*." Likewise, during village general assembly village council always presents VEC reports and their activities to villagers.

Performance on representative's responsibility did not differ significantly ($\chi^2 = 0.247$; p = 0.618) before and after ($\chi^2 =1.024$; p=0.312). 51.8% asserted that representative's responsibility was not improved while 48.2% asserted that had improved (Table 3). This indicated that VEC represented their constituents at satisfactory level.

Table 3: **Respondents' perception on the effect of institutional change on accountability**

Variable	Ranking	Before (BD)	After (AD)
1. Mechanism of dissemination of information	Poor	11 (8.0)	5 (3.7)
	Satisfactory	13 (9.5)	15 (10.9)
	Good	11 (8.0)	82 (59.9)
Total		**35 (25.5)**	**102 (74.5)**
Mean score		**2.07**	**2.52**
Chi-square and P- values		**$\chi^2= 0.326$; p=0.850**	**$\chi^2= 18.717$; p=0.0001**
2. Answerability (upward and downward accountability)	Poor	57 (41.6)	-
	Satisfactory	20 (14.6)	16 (11.7)
	Good	10 (7.2)	34 (24.8)
Total		**97 (70.8)**	**50 (36.5)**
Mean score		**2.31**	**2.12**
Chi-square and P- values		$\chi^2= 0.655$; p=0.721	$\chi^2= 0.408$; p=0.816
3. Representative's accountability	Poor	9 (6.6)	12 (8.8)
	Satisfactory	36 (26.3)	14 (10.2)
	Good	23 (16.8)	40 (29.2)
Total		**71 (51.8)**	**66 (48.2)**
Mean Score		**2.85**	**2.66**
Chi-square and P= values		$\chi^2= 0.247$; p=0.618	$\chi^2= 1.024$; p=0.312

*Significantly difference at 5% level; BD = Before decentralization, AB = After decentralization; Figures in brackets are percentage

For effective accountability, governing bodies should be answerable to their constituents who give them legitimacy (either earned or conferred) both upward and downward (Lockwood, 2010). The study showed that forest workers at CFR and VECs were accountable to their constituencies (downward and upward) though at satisfactory level. Furthermore, VECs were exercising their power and responsibilities as close as possible to the people and forest resources that were affected by their decisions hence improved accountability. However, questioning and challenging is very minimal as CFR management has more power in decision making as the owner of CFR.

Satisfactory score on accountability can be explained by the fact that since most issues were presented and discussed at village general assembly, then lack of Village Community Development Committee (VCDC) might be responsible for satisfactory performance as the information on who and why the decision was

arrived were not trickling down to the local people. Furthermore, since transparence had improved satisfactory, it can be a reason of satisfactory performance on accountability. Similarly, Chingonikaya (2010) reported that accountability at Mgori CBFM to be at satisfactory level indicated a common trend in most decentralized forest management.

4.1.3 Effect on equity

The effect of institutional change on the performance of equity was examined by three items (Table 4) namely: local people's human rights are respected, absence of biasness in decision on case by case and fair distribution of benefits and costs.

The respondents reported that the performance on human rights differed significantly (χ^2 = 10.207; p= 0.001) indicating that was improved after decentralization. About 59% of the respondents reported that respect for human rights had improve (Table 4). Generally, local people's rights were not violated. For example, according to DFO, "*local people were allowed to continue using traditional pathways within CFR which connects villages and sub-villages, and traditional activities that had no effects to the forest resources such as rituals in sacred forests were also allowe*d". However, during FGDs, people complained that they were denied access to the forest products which was their basic rights and had negative implication on their livelihood.

Likewise, fair distribution of benefit and cost was improved significantly (χ^2 = 18.287; p< 0.0001) after decentralization (Table 4). Majority of the respondents 58% claimed that fair distribution of benefits and costs had improved at satisfactory level (Table 4). However, local people argued that the benefits they got from the effort they invest in conservation was not enough, for example people demanded to be allowed to cut firewood, grazing their livestock and cutting poles for building their houses which was against the Memorandum of Understanding (MoU). Responding to those claims, DFO "*argued that according to URT (1998) all activities that have negative effect to the forests are not allowed unless under license or permission from central government*". Lockwood (2010) argued that fair distribution does not necessarily mean equity in benefit sharing as this might jeopardize the objective of the forest reserve management.

Table 4: **Respondents' perception on the effect of institutional change on equity**

Variable	Ranking	Before (BD)	After (AD)
1.Local people's human rights are respected	Poor	4 (2.9)	14 (10.2)
	Satisfactory	10 (7.3)	12 (8.8)
	Good	16 (11.7)	81 (59.1)
Total		**30 (21.9)**	**107 (78.1)**
Mean score		**2.41**	**2.90**
Chi-square and P- values		**χ2=1.749; p=0.188**	**χ2= 10.207; p=o.001**
2. Fair distribution of costs and benefits	Poor	-	-
	Satisfactory	18 (13.1)	80 (58.4)
	Good	34 (24.8)	5 (3.6)
Total		**52 (14.6)**	**85 (62.0)**
Mean score		**2.78**	**2.30**
Chi-square and P- values		**χ2= 5.135; p=0.162**	**χ2=18.287; p=0.0001**
3. Absence of biasness in decision case by case	Poor	19 (13.9)	13 (9.5)
	Satisfactory	-	25 (18.2)
	Good	-	80 (58.4)
Total		**19 (13.9)**	**118 (86.1)**
Mean Score		**2.75**	**3.00**
Chi-square and P= values		**χ2= 1.596; p=0.660**	**χ2=16.790; p=0.0001**

*Significantly difference at 5% level; BD = Before decentralization, AB = After decentralization; Figures in brackets are percentage

Respondents views on absence of biasness in decision on cases differed significantly (χ^2 = 16.790; p< 0.0001) after decentralization About 58% of the respondents claimed that absence of biasness on decision on cases had improved (Table 5). Generally, there was evidence of biasness in treating cases of offenders. All offences committed should be handed over to Bahi District Council (BDC). According to the legal power vested to Bahi District Council and depending on the nature of the offence, BDC has the right to fine the offender according to Forest Act No 14 of 2002 or send an offender to the court for prosecution. However, local people complained that in most cases they were not told of the outcome of the cases, especially the ones which they had been involved.

Equity requires authority to respect human, civil and political rights without forgetting local people's rights. In addition, the authorities should account for the

distribution of benefit and cost resulting from their decisions and actions for both current and future generations (Lockwood, 2010). One of the major factors accounting for the success of decentralization is continuous flow of tangible benefits and its fair distribution by balancing wealth status, gender and contribution of members in the forest management activities. The fundamental aim of decentralization in Tanzania is to bring government closer in the interest of enhancing efficiency and democratic accountability. Transfer of power and resources to local level will help to empower communities to work together to define and resolve their problems (Stockmayer, 1999).

5.0 CONCLUSIONS AND RECOMMENDATIONS

The study indicated that the forest governance had improved after decentralization as hypothesized in the conceptual framework. The study revealed that legitimacy, transparency; accountability and equity had improved as a result of improvement in law enforcement and people's adherence to rules and regulation through collective law enforcement and existence of institutional arrangement that support rule of law, transparency, accountability and equity. Forest governance improved at satisfactory level as a result of lack of openness on matters related to CFR such as financial issues and absence of collaboration between VECs and Bahi District Council which were important organs for facilitating communications and connections between CFR management and local communities. Therefore, the study concluded that quality of forest governance had improved at satisfactory level after decentralization of CFR under BDC. The study recommended that the dimensions of good governance such as rule of law, transparency, accountability and equity have to be strengthened. More support is needed from outside stakeholders such as donors, district council and central government for development of forest resource management.

REFERENCES

Agrawal, A and Gupta, K. (2005). Decentralization and participation: the governance of common pool resources in Nepal's Terai. *Journal of World Development*, 33(7): 1101 – 1114.

Bagachwa, M. S. D., Shechambo, F. C., Sosovele, H, Kulindwa, K. A., Naho, A. A. and Cromwel, E. (Eds.) (1995). *Structural Adjustment and Sustainable Development in Tanzania.* WWF and Economic Research Bureau, University of Dar-es –salaam. 210pp.

Chingonikaya, E.E. (2010). *Participatory forest management regime, forest resource based and socio-economies of local communities in Tanzania*: A case of Mgori Forest Reserve in Singida, Tanzania. Thesis for Award of PhD degree at Sokoine University of Agriculture, Morogoro, Tanzania. 269 pp.

CIFOR, (2004). Making dry forests work for the poor in Africa-Bulding on success. CIFOR Livelihoods Brief No. 3. 15pp. Making dry forests work for the poor in Africa. In: *Proceedings of an International Workshop on Pluralism and Sustainable Forestry and Rural Development*, from 9 – 12 December 1997, Rome, Italy. Pp 49 – 83.

Erickson, G. (1993). *Peasant's Response to Price Incentives in Tanzania. A Theoretical and Empirical Investigation*. Research Report No. 91. ISSN 0080-6714. 48pp.

FAO (2010). *Global Forest Resource Assessment (FRA 2010)*, Country Report, Forestry Department, Food and Agricultural Organization of the United Nations, Rome. 56pp.

IUCN (2004). Governance of Natural Resources: The Key to a just world that values and conserves nature. [http://www.iucn.org/theme/ceep/Wkg grp/TILCEPA/WPC/governance%20final%20report%20oct%2003.pdf] site visited on 3/12/2011.

Lutz, G., and Linder, W. (2004). *Traditional Structures in Local Governance for Local Development.* Berne, Switzerland. 53 pp.

Lockwood, M. (2010). Good governance for terrestrial protected areas: a framework, principles and performance outcomes. *Journal of Environmental Management* 91: 754 – 766.

Manor, J. (1999). *The Political Economy of Democratic Decentralization*. World Bank, Washington, DC. USA. 104pp.

Mbwambo, L. (2012). Impact of decentralized forest management on forest resource condition and livelihoods in North and Central Tanzania. Dissertation for Award of the Doctor of Philosophy of Sokoine University of Agriculture. 200pp.

MNRT (2005). *Forest area baseline for the Eastern Arc Mountains*. Ministry of Natural Resources and Tourism. Forestry and Beekeeping Division. 80pp.

Mehta, J.N., Stephen, R and Kellert, J. (1998). Local attitudes towards community-based conservation policy and programmes in Nepal: A case study in the Makalu-Barun Conservation Area. *Environmental Management*, 25(4): 320 - 333

Pallant, J. (2005). *SPSS survival manual: A step by step guide to data analysis using SPSS for windows (version 12)*. Second Edition. Open University Press, UK. 318 PP.

Stockmayer, A. (1999). Decentralization: Global Fad or Recipe for Sustainable Local Development. *Agriculture and Rural Development* 19: 3 – 6.

URT (1998). *The National Forest Policy*. Government Printers, Dar es Salaam, Tanzania. 59pp.

URT (2002). *The Forest Act No. 8 of 7th June 2002*. Forestry and Beekeeping Division, Ministry of Natural Resources and Tourism, Dar es Salaam, Tanzania. 174 pp.