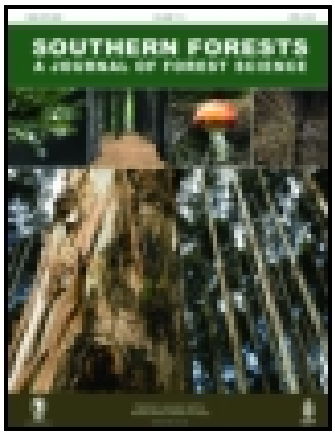

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Management Paper

Technical and institutional capacity in local organisations to manage decentralised forest resources in Uganda

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SYNOPSIS

Uganda is one of the sub-Saharan African countries that has devolved the management of forest resources. Meaningful devolution, however, requires that local governments and other community organisations should have capacity in terms of adequate and competent human resources, finance, information, skills, and the appropriate legal framework to effectively deliver services. This paper examines the technical and institutional capacity in selected local organisations to manage decentralised forest resources in Uganda. We found that technical and institutional capacity to implement decentralised forest governance exists in local organisations through partnerships with other actors in the productive use of the available resources. Local organisations mobilised and managed human, physical and financial resources for decentralised forest management. They also demonstrated the capacity to make and implement integrated plans and budgets and formulated byelaws regulating forest use. Our findings, however, revealed that none of the organisations had either the legal mandate or sufficient human and physical resources to govern forest resources unilaterally due to inadequate devolution of decision-making powers and inadequate fiscal support from the central government. The findings suggest a need for local organisations to recruit more technical staff, strengthen internal sources of revenue and networking amongst organisations both at local and national government levels for effective management of decentralised forest resources.

Keywords: Capacity, decentralisation, forest resources, local organisations, Uganda

INTRODUCTION

Globally, there has been a deliberate shift in responsibilities for forest management away from central forest administration to local governments, the private sector, non-governmental organisations and local community organisations (FAO, 2001). Proponents of decentralisation argue that it is good for natural resources management, since it can incorporate local knowledge about resource base (Carney, 1995), and forest resources under local authorities can be well maintained because they are closely monitored (Arnold, 1998). The decentralisation of forest resource management and control is also based on the assumption that it will lead to more efficient, equitable and sustainable forest resource use (Larson, 2002, 2003; Ribot, 2003). Decentralisation of forestry is important because rules made for managing forest resources by local authorities are considered legitimate and more relevant to local situations (Meinzen-Dick and Knox, 1999). On the otherhand, there are fears that decentralisation of forest management may lead to greater levels of deforestation (Kaimowitz *et al.*, 1998; Ribot, 2002). Therefore, forests could be better managed under state forest departments because local governments lack technical expertise and financial resources to manage forests and may promote excessive resource exploitation to expand their tax base. However, these claims have not been tested and the evidence that exists in decentralised forest management is not convincing. Thus, the decentralisation outcomes are mixed (Andersson, 2002; Larson, 2003; Ostrom, 2000).

Meaningful decentralisation requires that local organisations should have adequate capacity to manage decentralised services (de Mello, 2000; Fizbein, 1997). Linde *et al.* (2001) described capacity as possession of financial resources, information, equipment and an appropriate legal framework, knowledge, skills and abilities to fulfil a given role. Dia (1996) classified capacity into technical and institutional capacity. Technical capacity constitutes

qualified and experienced staff, money, infrastructure and equipment to deliver services. In contrast, institutional capacity deals with the features of the environment that encourage local organisations to strive for effective implementation of services, and make good use of the resources available to the organisation. However, it is difficult to measure impacts associated with capacity development for managing decentralised services in a short run because the decentralisation of forests is a recent institutional reform in most developing countries. According to Turner and Meer (2001), it takes a long time to build capacity of institutions to manage forest resources at local level because the more local organisations get involved in the governance of forest resources, the better they build their capacity.

The management of forest resources in Uganda has vacillated from centralisation to decentralisation over the past century. The first attempt to decentralise the management of forests was between 1939-1947 with legislation establishing local forest reserves under the Local (District) Administration, village forests under local authorities and communities and central forest reserves under the control of the Forest Department (Forest Department, 1951, 1955). At the time, each District had an African Local Government (ALG) consisting of a District Council constituted by councillors and chiefs. The District Council had powers to make byelaws on the use of forest resources whereas the chiefs had the powers to arrest offenders, issue licenses, collect revenues, and regulate the cutting of timber and wasteful exploitation of trees on public and private lands (Uganda Protectorate, 1919, 1949).

After Uganda got its independence in October 1962, the post independence governments abolished the role of local forest administrations. It was believed that this move would ensure efficiency and rationality in the development of forest resources. For example, the Forests Act of 1964 was amended in 1967 and centralised the forest services hitherto run by the Local Administrators and absorbed them into the centrally organised Forest Department[1] (Hamilton, 1984). This change in governance meant that the institutional arrangements that had been instituted by the Local Administrators and forest users to limit entry and harvesting levels lost their legal standing. The decisions regarding forest resource use were entrusted to the Forest Department as the sole agency with powers to regulate the harvesting of forest produce in all government forest reserves and the use of tree products on public and private land. The delivery of services under the central government in Uganda, including forestry, was negatively affected by the country's political instability that characterised the country in the 1970s to mid-1980s. For example, tropical high forest cover declined from 762,000 ha in the 1970s to about 650,000 ha in 2002 (NEMA, 2002).

From 1995, Uganda embarked on the process of decentralising delivery of services back to local government agencies. For example, the delivery of services in the health, education, agriculture sectors, including the management of forests and other natural resources were decentralised following the enactment of the Decentralisation Statute, the 1995 Constitution and the Local Government Act of 1997(Government of Uganda, 1993, 1995, 1997). The decentralisation process aims at improving service delivery by shifting responsibility for policy implementation from central government to local beneficiaries. It is also designed to challenge the local government authorities and citizens to become initiators, implementers and overseers of development plans geared towards addressing local problems.

After one year of piloting decentralised forest management, forestry services were re-centralised because most of the forests had been cleared to finance other local government services. In addition, the new jurisdictional lines between the district forest officers, the employees of the central government and the local government councils were not clear due to rapid devolution of formal power to local governments (Okidi, 2000). In 1998 a forest reserves declaration order was issued that decentralised local forest reserves to local governments (Government of Uganda, 1998). Under the 2001 Forest Policy and the National Forest Plan of 2002, the central government recognises local governments and other local community organisations as key players in forestry development (MWLE, 2001, 2002). Local governments and other community organisations are expected to deliver services, including the management of forest resources on behalf of the central government cost effectively. Along with many other public service functions, the objectives for decentralising forestry were to: (i) enhance the role of local government with more developed responsibility to plan and implement forestry activities; (ii) reduce the burden on public finances by empowering local government outsourcing for financial resources and privatisation of forestry activities that were carried out by the central government; and (iii) encourage more participation of local communities and farmers in the management of the country's forest resources.

In Uganda, the central government has reluctantly decentralised forest governance in spite of the fact that most government sectors are decentralised. A small proportion of the forest estate designated as local forest reserves was decentralised, while the large and economically viable part of the forest estate, the central forest reserves was retained under the autonomous National Forestry Authority. The central government use lack of capacity to deny local governments and other community organisations the autonomy to govern and implement decentralised forestry services (Bazaara,

1 The management of Uganda's forest estate has been under the Forest Department since 1898. In April 2004, the Forest Department was divested into an autonomous National Forestry Authority (NFA) to manage central forest reserves (CFRs), while local governments are mandated to manage local forest reserves (LFRs) under the District Forestry Services (DFS).

2001). However, there is lack of systematic evidence documenting the capacity available in local organisations to implement forestry activities under decentralisation. Therefore, their capabilities and advantages to implement decentralised forest governance over state forest departments remain largely untested. This study was therefore carried out to assess the technical and institutional capacity available in local organisations to manage forest resources. Specifically the study assessed resources available within local organisations for them to undertake decentralised forest management; the extent to which local organisations attract and mobilise financial, human and technical resources, equipment and facilities and manage them in implementing forestry activities; and the challenges local organisations face in decentralised forest management. Information from this study will add new knowledge to the management of forest resources in Uganda and assist policy-makers and planners to make informed decisions about decentralised forest governance. The study was guided by the following research questions:

(i) What capacity (financial, competent personnel, facilities, equipment, and information assets) is available in local organisations to enable them to undertake decentralised forest management?
(ii) What mechanisms are available in local organisations to mobilise and generate resources and the kind of environment that exists for effective use of these resources to implement decentralised forest governance; and
(iii) Whether lack of capacity is a binding constraint for successful decentralised forest governance in Uganda?

Decentralisation and the Local Government System in Uganda

Uganda is administered under a decentralised system of divisions referred to as districts. With decentralisation, local government (district and the sub-county) assumed most of the responsibilities formerly undertaken by the central government ministries (Government of Uganda, 1997). These included income tax collection, service provision, formulation of policies and laws and managing the environment. The current local government in Uganda is organised into a five-tier system of elected representatives called Local Councils (LCs), from level one (LC1) to level five (LC5) (**Figure 1**).

The District Council or the fifth level (LC5) is the highest political organisation in a district. It comprises elected councillors who represent specific constituencies and interest groups, and is headed by the District Chairperson, who presides over meetings of the executive committee. Below the District Council is the County or Municipality Council (LC4) in the rural and urban settings respectively, which is an administrative unit. The sub-county (LC3) is the second level of local government. Below the LC3 are the Parish (LC2) and the Village (LC1) levels. Each Local Council at every level includes an executive committee of nine members and a position for the secretary for production and environment.

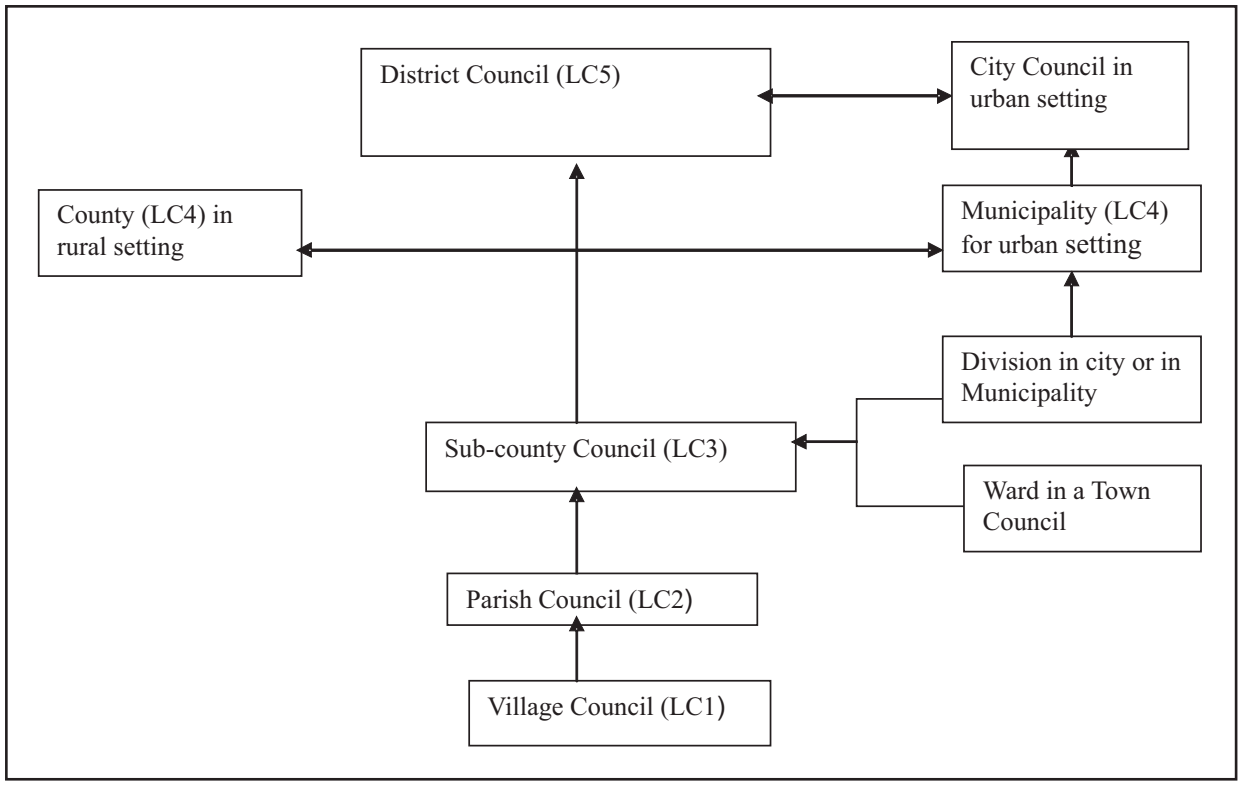

FIGURE1. The Local Government structure in Uganda.

At the local government level, the District and Sub-county Councils have legislative powers, while the executive committee, which is part of the council, is responsible for executive functions, but it is answerable to the council. The executive (administrative) functions are exercised through a hierarchy of employed officials with the Chief Administrative Officer (at the district level), followed by the Assistant Chief Administrative Officer (County level), Sub-county and Parish chiefs at Sub-county and Parish levels, respectively. The executive committee initiates and formulates policies for approval by the council, oversees the implementation of central government programmes, including the management of natural resources and council's policies, monitors the implementation of council's programmes, and receive and solve problems and disputes forwarded to it from lower local governments. The executive committee does accounting and supervision of the Local Government staff. The legislative functions are exercised through a hierarchy of elected representatives with LCs running from LC1 to LC5. These are charged with formulation of policies, ordinances and byelaws for managing the districts' resources (Government of Uganda, 1997). The local government councils can make byelaws without seeking permission from the national government provided the laws do not conflict with the national laws. The District Council is also empowered to hire and fire staff of the district and sub-county governments. In this study, only two levels of the Local Government, LC3 and LC5, that are legally mandated to formulate and plan the implementation of natural resources management policies, were considered.

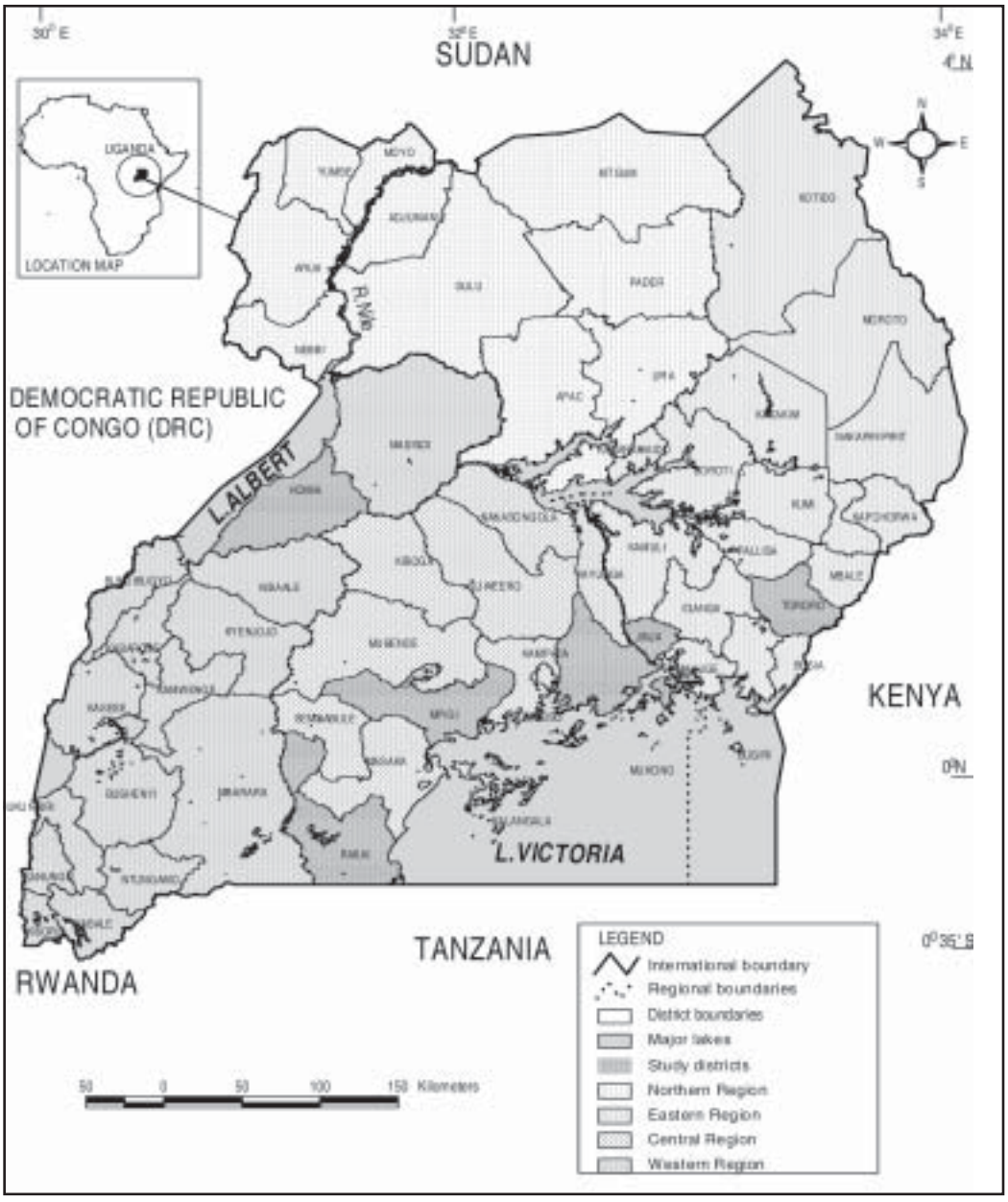

FIGURE 2. Map of Uganda showing regions and the study districts.

METHODS

The study area

The study took place between August 2002 and February 2003 in Hoima, Mukono, Mpigi, Jinja, Rakai and Tororo districts representing 11% of the total number of districts in Uganda (**Figure 2**).

The districts were selected because of the presence of decentralised forests, and variation in their geographic settings. These districts have different types of forests and varying degrees of success rate of collaborative forest management efforts. The districts also pioneered the implementation of decentralised services in Uganda (Ministry of Local Government, 1997). The biophysical and socio-economic characteristics of the study districts are presented in **Table 1**.

Sampling procedure and data collection

Documents available from the non-governmental organisations forum of the districts involved in the study were examined to identify organisations that were involved in the implementation of forestry activities at the local government level. These included the district and sub-county governments, non-governmental organisations (NGOs), community based organisations (CBOs), research institutes, and cultural and religious institutions. The district and sub-county local governments were selected because they are the key levels in relation to policy-making, budgeting, financing and planning forest governance and other natural resources under the Local Government Act of 1997 (Government of Uganda, 1997). NGOs and other community organisations were also selected because they are mandated to support local governments in implementing natural resource management programmes.

Semi-structured questionnaires were administered to 236 personnel randomly selected from 53 local organisations to solicit their perception of their organisation's capacity to manage decentralised forest resources and linkages with other organisations as a tool for enhancing local capacity to access resources critical to organisations involved in the management of decentralised forest resources. These included, 30 sub-county governments, seven CBOs, six district governments, six NGOs, two research institutes and cultural and religious institutions, respectively. Within the sub-county and district local governments, only members of Production and Environment Committees were selected for interview because they hold decentralised powers for managing natural resources, including forestry (Government of Uganda, 1997, 1998).

In this study, the variables used to assess capacity to manage decentralised forest resources were: (i) the number and qualification of technical forestry staff; (ii) amount and type of equipment and facilities available; (iii) amount of fiscal resources allocated for forestry; (iv) the number of meetings held about forestry resources; (v) the presence of byelaws formulated to regulate forest resource use; (vi) presence of information assets such as published reports, and legal documents about forest management in Uganda, and (vii) the degree to which local organisations link up with other actors to maximise the use of technical and physical resources.

Information assets available in local organisations such as vegetation maps, minutes of meetings, and periodic reports about forestry resource use and management, byelaws formulated to regulate forest use and policy and legal documents were recorded as (1) when present and (0) when absent. Technical staff, fiscal resources, equipment and facilities were numerically recorded by the number available in each organisation.

Documents of local organisations were reviewed to collect information on forest policies and laws, facilities and equipment for field operations, internal revenue generation and external funding mechanisms and strategies, and how money can be reinvested in forestry.

TABLE 1. The biophysical and socio-economic characteristics of the study sites

	Land area (km^2)	Forest area (km^2)	Forest area under central government (km^2)	Forest area under local governments (km^2)	% of forest land	Population density (persons per km^2)
Hoima	5,932.8	1605.1	595.4	0.32	27.0	59
Mpigi	3,605.6	719.5	303.4	3.30	19.9	115
Mukono	12,655.7	1079.8	515.3	4.99	8.5	64
Rakai	4,908.7	382.6	363.0	0.85	7.4	96
Jinja	722.7	61.3	40.0	1.50	5.5	573
Tororo	1,849.3	31.2	7.0	0.63	1.6	302

Data analysis

Questionnaire responses were edited, coded and analysed using STATISTICA (StaSoft, Inc, 2003). Chi-square tests (Zar, 1996) were conducted to show whether the opinions of respondents about their organisations capacity to manage decentralised forest resources was dependant on (i) their available resources; (ii) organisational affiliation of the respondents; (iii) presence of byelaws regulating forest resources use and integrated work plans; and (iv) the position of the respondents and sources of funding for the organisation. A one-way analysis of variance (ANOVA) was conducted to compare the mean values of human resources and assets available for decentralised forest governance among local organisations. Numeric variables on financial allocation to forestry amongst study organisations failed the assumption of normality and homogeneity of variance. Thus, Kruskal Wallis test (H) one-way analysis of variance using ranks (non-parametric) test was performed to show the difference in financial allocation to forestry by local organisations (Zar, 1996).

RESULTS

Organisational affiliation and educational background of the respondents

The nature of organisations and educational background of the respondents are presented in **Table 2**. The majority of the respondents (91.5%) were from the local government.

Sixty eight percent of the respondents were trained in forestry and environmental aspects. The reasons they gave for attending training were to learn about forestry and environmental management (59.7%), represent the interests of their organisations (33.5%) and develop a professional career (7.5%). The high number of respondents with forestry training implies that there are many people who are aware that decentralised forest management occurs in Uganda. The respondents were well educated because about 53% had tertiary education. It is thus logical to assume that they understand decentralisation policy and forest resource management. More than half of the respondents (53.4%) mentioned that forest management had been decentralised, 36% indicated that they were aware of forest management being decentralised, while (10.6%) had no idea about decentralised forest management.

Opinion of respondents capacity to undertake decentralised forest governance

The majority of the respondents (72.5%, n=236) said that their organisations had the capacity to manage decentralised forest resources, while 27.5% indicated that local organisations did not have adequate capacity. The reasons given by respondents for this are presented in **Table 3**.

The organisational affiliation of the respondents significantly influenced their opinions on the

TABLE 2. Organisations and educational profile of the respondents involved in decentralised forest management in Uganda (N=236)

Characteristic	% Response
Local governments	
Sub-county governments	71.6
District governments	19.9
Subtotal	**91.5**
Support organisations	
Non-governmental organisations (NGOs)	3.4
Community based organisations (CBOs)	3.0
Research institutes	1.3
Cultural and religious institutions	0.8
Subtotal	**8.5**
Total	**100.0**
Educational level	
Primary education	3.0
Secondary education	44.0
Tertiary and/or University	53.0
Total	**100.0**
Attended forestry and/or environment related training	
Yes	68.2
No	31.8
Total	**100.0**

availability of capacity to manage decentralised forests (χ^2=15.95, df=2, p<0.05). Most respondents from sub-county governments (74.3%) said that local organisations had better capacity to manage decentralised forest resources than from district governments (21.1%) and support organisations (4.7%). The position of the respondent in the organisation was also associated with the opinions of the respondent's on the capacity to manage decentralised forests (χ^2=13.04, df=4, p<0.05). Most elected officials (73.1%) said that local organisations have better capacity to manage decentralised forest resources compared to civil servants (21.6%), development workers (3.5%), and cultural and religious workers (1.2%) and researchers (0.6%). The presence of byelaws influenced the opinions of respondents about the capacity to manage decentralised forest resources (χ^2=9.67, df=1, p<0.05). More than half of the respondents (52%) from organisations with functioning byelaws were of the view that their organisations have the capacity to manage decentralised forest resources.

Linkages as part of capacity to implement decentralised forest governance

About 86%, of the respondents (n=236) mentioned that their organisations had established links with other organisations to implement forestry activities, while 14% said that their organisations work independently. The most frequently mentioned linkages in local organisations were exchange of information, technical backstopping and input supply (**Table 4)**.

TABLE 3. Reasons for having and not having the capacity to manage decentralised forest resources amongst local organisations in Uganda

Variable	% Response
Reasons for having capacity to manage decentralised forestry (N=171)	
Close proximity to the forest resource	37.4
Feel a sense of ownership of the forest	34.5
Presence of legally empowered Production and Environment Committees (PECs)	28.7
Availability of self-motivated groups and civil society organisations	22.8
Availability of technical staff	21.6
Willingness of local leaders	16.9
Presence of networking amongst organisations	10.5
Availability of security personnel	6.4
Available indigenous knowledge on forest resource use	5.8
Have power to hire and fire personnel	4.1
Reasons for not having capacity to manage decentralised forestry (N=65)	
Lack of trained staff	64.6
Inadequate finance	53.8
Corruption amongst local government personnel	40.0
Lack of awareness on forest issues amongst local authorities	16.9
Lack of legal mandate to manage forests	7.7
Forests face degradation and overexploitation to generate funds	4.6

Note: Percentages may total over 100 due to multiple responses.

TABLE 4. Frequency of responses on linkages established amongst organisations involved in decentralised forest management in Uganda

Kind of linkage	District governments (N=45)	Sub-county governments (N=142)	Support organisations[+] (N=17)
Technical advice in forestry management practices	87	78	94
Exchange of information about forestry governance	80	70	94
Input supply	57	37	47
Joint implementation of forestry activities	31	28	53
Provision of credit facilities to those involved in forestry	24	18	47

[+]Support organisations include: NGOs, CBOs, research institutes, and cultural and religious institutions.

Of the respondents, 73% said that their organisations are motivated to work with others to utilise the expertise and technical knowledge they are lacking, while 53% mentioned sharing of financial resources and facilities. Other factors promoting partnerships were sharing roles and responsibilities (48%), sharing information (38%) and legal mandate to network with others (27%). Twenty two percent indicated the existence of formal co-ordinating mechanisms, such as board and local council meetings and informal meetings of staff. Information exchange amongst organisations was said to be through meetings (60.8%), workshops (48%), and field visits (30.4%). Provision of credit was said to involve giving financial support to enable local organisations implement forestry activities.

Capacity to craft and formulate byelaws regulating decentralised forest resources use

Most organisations formulated byelaws regulating forest use. All district governments had formulated at least a byelaw, while in sub-county governments and support organisations, 80% and 12%, respectively had formulated at least a byelaw. The most frequently mentioned forest byelaws formulated by local organisations were related to tree planting and regulation of forest resource use (**Table 5**).

Resources available in local organisations for decentralised forest governance

Human resource capacity

The survey organisations had limited human resources trained in forestry (**Table 6**). Over all, only district governments had more than half of the established staff positions occupied. In terms of qualification, more than half of the established graduate positions in the district local governments, research institutes and NGOs were occupied.

There were disparities in terms of technical staff available in each organisation. Research institutes had the highest number of forestry graduates, while cultural and religious institutions had no forestry graduate. The mean number of forestry staff with a diploma was highest in research institutes than in other organisations. None of the CBOs had a staff holding a diploma and certificate in forestry. NGOs had no casual forest workers, while cultural and religious institutions had no established positions for casual forest workers. The majority of trained forestry staff in the district local governments were seconded from the central government, while other organisations recruited their own staff.

Physical facilities and equipment capacity

Most organisations lacked adequate facilities and equipment to implement decentralised forest governance **Table 7**. More than half of the required number of vehicles in district governments and research institutes were available. On average, sub-county local governments, NGOs, and CBOs had less than one vehicle available for forestry.

Motorcycles were major means of transport in most organisations. On average, each organisation had two motorcycles. Similarly, each organisation had at least a telephone line for communicating with partners. There was also limited use of computer technology in accessing information. Only 7% of the required number of computers were available in sub-county governments. On average, sub-county governments and CBOs had less than one computer.

Information asset capacity

Most organisations had information assets for monitoring forest resources (**Table 8)**.

Each organisation had an integrated work plan encompassing activities undertaken, including forestry. District governments and research institutes nearly had most of assets for monitoring forest use and management such as minutes of meetings about forest management, byelaws and ordinances for regulating forest resource use, periodic reports on

TABLE 5. Byelaws formulated to regulate decentralised forest resource use in Uganda

Kind of linkage	District governments (N=6)	Sub-county governments (N=30)	Support organisations+ (N=17)
Tree planting at all levels	6(100)	19(63)	1(6)
Harvesting forest products for commercial use need a permit	5(83)	20 (67)	1(6)
Protection of hills and water sources	2 (33)	13 (43)	0
Local Councillors to recommend forest users for permits and licences to the Forest Department	2 (33)	6 (20)	0
Levying high taxes on "outsiders" involved in forest exploitation	2 (33)	5 (17)	0
No use of power saws to harvest timber in natural forest	1 (17)	6 (20)	0

+Support organisations include: NGOs, CBOs, research institutes, and cultural and religious institutions.

Numbers in the parenthesis represent percentage of organisations that crafted byelaws

forest management and revenue from forest produce. Members of the district and sub-county governments are policy makers at local government level and thus craft byelaws and ordinances for regulating forest resource use, while research institutes access these assets to be informed about forest policies and how they affect their activities.

Capacity to mobilise fiscal resources

Local revenue (taxes), central government transfers and international aid were the most common sources of revenue for district and sub-county governments (**Table 9**).

Research institutes, NGOs, CBOs, and cultural and religious institutions received most of their funding from international aid agencies. Local governments received over 90% of the financial support from the Government of Uganda (central government transfers), while cultural and religious organisations received funding mainly from donations, offertory and voluntary contributions by members and from the sale of forest products. The amount of revenue generated from forests was generally low, contributing to less than 1% of the total budget in the district governments (**Table 10**).

Capacity to allocate funds for implementing forestry activities

Fiscal allocation to forestry was higher in NGOs and research institutes, with over 60% of their total budget set aside for forestry activities (**Figure 3**). However, local government fiscal allocation to forestry was generally limited. A small proportion (less than 1%) of the total budget in local governments was allocated to forestry activities.

TABLE 6. Existing and proposed human resources by organisations and qualifications for managing decentralised forest resources in Uganda

Staff qualification	Nature of organisation					
	DGs (N=6)	SCGs (N=30)	NGOs (N=6)	CBOs (N=7)	RI (N=2)	CR (N=2)
Degrees						
No. of positions established	18	30	19	6	26	4
No. of positions occupied	13	1	11	1	16	-
% of positions occupied	72	3	58	17	62	-
Mean of occupied positions in each organisation	2.1±1.0	0.03±0.2	1.8±3	0.14±0.4	8±5.8	0
Diplomas						
No. of positions established	30	41	44	8	22	5
No. of positions occupied	14	10	6	0	5	1
% of positions occupied	47	24	14	0	23	20
Mean of occupied positions in each organisation	2.3±1.8	0.33±0.6	1.0±1.6	0±0.0	2.5±3.5	0.5±0.7
Certificates						
No. of positions established	95	74	44	15	9	7
No. of positions occupied	29	16	19	0	4	1
% of positions occupied	31	22	43	0	44	14
Mean of occupied positions in each organisation	4.8±2.4	0.53±0.9	3.16±3.9	0±0.0	2±2.1	0.5±0.7
Casual workers*						
No. of positions established	108	88	10	11	24	-
No. of positions occupied	80	19	0	6	8	-
% of positions occupied	74	22	0	55	33	-
Mean of occupied positions in each organisation	13.3±9.3	0.63±1.1	0±0.0	0.86±1.9	4.0±5.6	0
Overall staffing						
No. of positions established	251	233	117	40	81	16
No. of positions occupied	136	46	36	7	33	2
% of positions occupied	54	20	31	18	41	13
Overall mean of occupied positions in each organisation	22.6±13	1.53±1.7	8.1±6.8	1.0±1.9	16.5±19	1.0±1.4

DGs=District governments, SCGs=Sub-county governments, RI=Research institutes, CR=Cultural and religious institutions.

* Includes patrol men and casual workers.

DISCUSSION

Institutional capacity to manage decentralised forest resources

We found that local organisations link up and collaborate with other actors in the implementation of forestry activities. The most important approaches used are informal staff meetings, information exchange, field visits, provision of credit, joint planning, and representation at formal administrative functions and on structures like task-forces, councils and boards. Linkages amongst local organisations enable organisations to have access to shared information because some organisations, particularly

TABLE 7. Existing and proposed number of physical facilities and equipment in local organisations for implementing decentralised forest management in Uganda

Staff qualification	Nature of organisation					
	DGs (N=6)	SCGs (N=30)	NGOs (N=6)	CBOs (N=7)	RI (N=2)	CR (N=2)
Vehicles						
Number required	59	40	13	9	20	12
Number available	38	4	5	1	15	4
% of the number available	64	10	39	11	75	33
Mean number available in each organisation	6.3±3.9	0.13±0.34	0.8±1.2	0.14±0.38	7.5±10.6	2±1.4
Motorcycles						
Number required	378	140	32	35	25	11
Number available	279	68	22	17	17	4
% of the number available	74	49	69	49	68	36
Mean number available in each organisation	46.5±20.9	2.3±2.6	3.66±1.4	2.4±2.0	8.5±12	2±2.6
Telephones lines						
Number required	39	52	15	9	4	11
Number available	11	10	6	7	2	3
% of the number available	28	19	40	78	50	27
Mean number available in each organisation	1.8±0.8	0.33±0.7	1.0±1.1	1.0±0.6	1.0±0.0	1.5±0.7
Computers						
Number required	43	42	25	16	19	9
Number available	14	3	10	6	13	2
% of the number available	33	7	40	38	68	22
Mean number available in each organisation	2.3±1.2	0.1±0.3	1.67±1.5	0.86±0.4	6.5±7.8	1.0±1.4

DLGs=District governments, SCGs=Sub-county governments, RI=Research institutes, CR=Cultural and religious institutions.

TABLE 8. Information assets for decentralised forest management in Uganda

Nature of asset present	DGs (N=6)	SCGs (N=30)	NGOs (N=6)	CBOs (N=7)	RI (N=2)	CR (N=2)
Byelaws regulating forest use	6 (100)	24 (80)	0	1 (14)	2(100)	1(50)
Minutes about forest management	6 (100)	9(30)	4 (67)	1(14)	2 (100)	0
Forest policy and Forests Act	5(83)	2(7)	4 (67)	2 (29)	2 (100)	1 (50)
Maps of forested areas	6(100)	12 (40)	4(67)	2(29)	1(50)	0
Periodic reports on forest use and management	4(67)	4(13)	3 (50)	2(29)	0	2 (100)
Records of revenue from forests	6(100)	2 (7)	0		0	1(50)
Work plan	6(100)	30(100)	6(100)	7(100)	2(100)	2(100)

DGs=District governments, SCGs=Sub-county governments, RI=Research institutes, CR=Cultural and religious institutions.
Numbers in the parenthesis represent percentage of assets present in each organisation.

NGOs, are considered to be well endowed with resources, and are able to provide inputs as well as credit facilities to other organisations. Furthermore, linkages enable organisations to avoid duplication of services and support each other's programmes (van Gelder and O'Keefe, 1995).

Our findings revealed that local governments have Production and Environment Committees (PECs), whose members are elected and downwardly accountable to local people. These committees are empowered by the Local Government Act of 1997 and the National Forestry and Tree Planting Act (Government of Uganda, 1997, 2003) to manage the local environment and other natural resources, including preparation, approval, control, monitoring and overseeing the implementation of environment programmes. The members of Production and Environment Committees are closer to people and have better knowledge of the needs and expectations of their constituents than the national government, thus they make integrated plans that incorporate local priorities. As noted by Faguet (2004), elected members can provide a platform through which local governments promote networking, collaboration and civil society participation in addressing environmental concerns. Lewis and Hartley (2001) believe that elected leaders focus resources on initiatives deemed worthwhile to communities and provide the political help needed to motivate individuals to take part in decentralised forestry.

Policy and legal capacity in local organisations

We found that most local organisations crafted and passed byelaws and resolutions that protect forest resources. District and sub-county governments have powers to formulate forest byelaws. This is provided for in sections 39 and 40 of the Local Government Act of 1997 (Government of Uganda, 1997) and the National Forestry and Tree Planting Act of 2003 (Government of Uganda, 2003). Many of these byelaws and resolutions address problems of deforestation,

TABLE 9. Sources of revenue for organisations involved in the implementation of decentralised forest management in Uganda

Source of revenue	DGs (N=6)	SCGs (N=30)	NGOs (N=6)	CBOs (N=7)	RI (N=2)	CR (N=2)
Local taxes	6 (100)	30 (100)	0	2 (29)	1(50)	0
Central government transfers*	6 (100)	30 (100)	3 (50)	0	2 (67)	0
International NGOs and donors	6(100)	11(37)	6 (100)	7 (100)	3 (100)	2 (100)
Credit facilities from credit institutions	0	1 (3.3)	1(17)	1 (14)	0	0
Voluntary contribution of funds by organisation members	0	0	1 (17)	2(29)	0	2 (100)
Other sources	0	1 (3.3)	0	1 (14)	0	0

DGs=District governments, SCGs=Sub-county governments, RI=Research institutes, CR=Cultural and religious institutions.

Numbers in the parenthesis represent percent contribution of each source to the organisation.

* Includes conditional, unconditional and equalisation grants.

TABLE 10. Revenue (US$) generated from forests in the financial year 2001/2, and the proportion of the revenue allocated to forestry in the FY 2002/3*

District government	Total budget in FY 2002/3	Revenue from forests in the FY 2001/2	% forestry contribution to total budget	Funds allocated to forestry in FY 2002/2003	% of the revenue allocated to forestry
Hoima	7,069,041	18,421	0.26	29,760	161.5
Mukono	14,524,081	17,601	0.12	18,262	103.7
Mpigi	7,852,999	22,379	0.28	14,871	66.4
Jinja	6,712,049	1,284	0.02	1,052	81.9
Rakai	8,529,473	291	0.01	1,957	672.0
Tororo	10,304,875	1,809	0.02	1,424	78.7

* 1US$=1900 Uganda shillings in 2003.

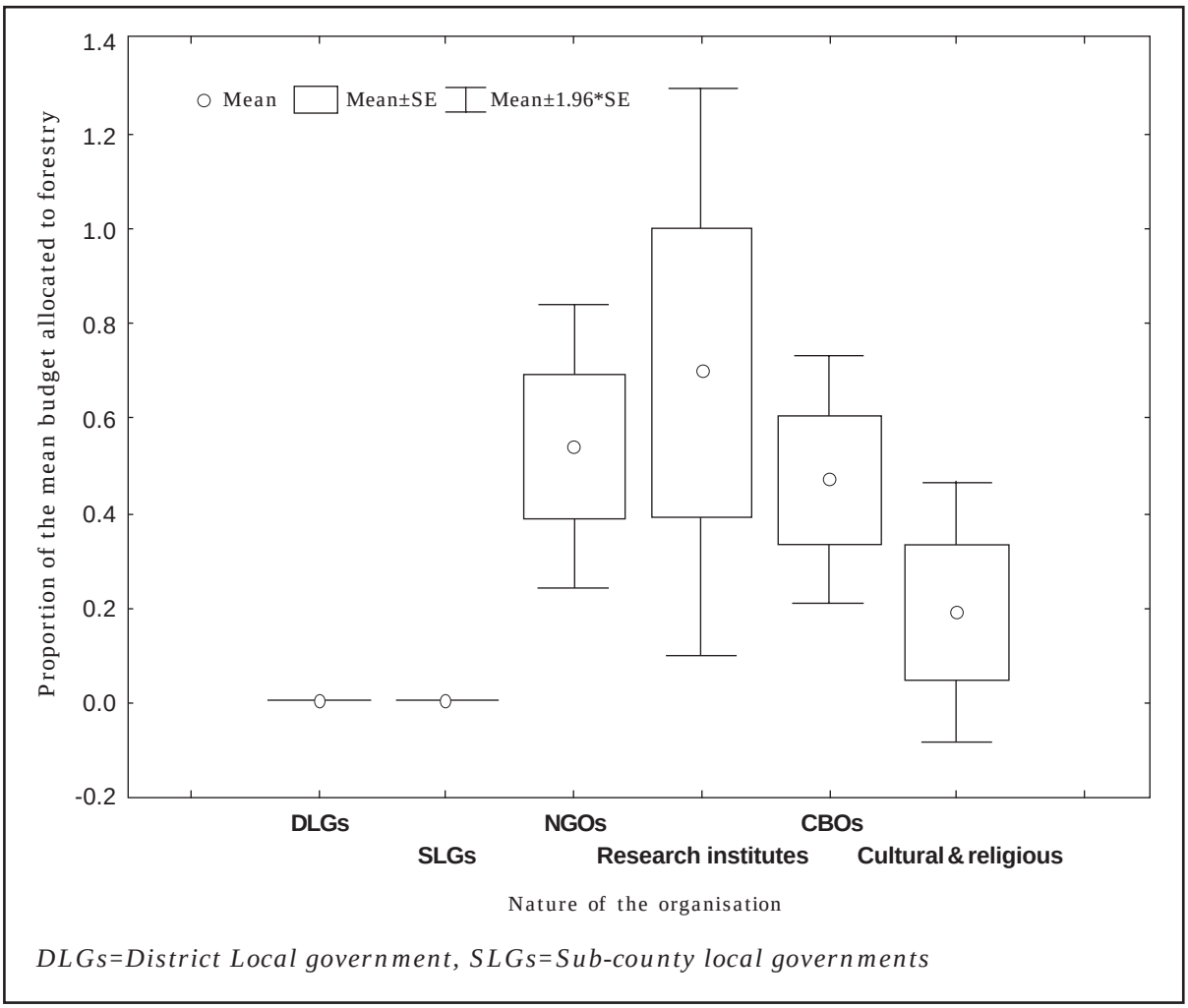

FIGURE 3.Proportion of the mean budget allocated to forestry amongst local organisations in Uganda in the financial year 2002/3.

over exploitation of forest resources and protection of marginal areas and water sources. These are also intended to support national environment policy or legal framework. However, NGOs, research institutes and civil society organisations rarely participate in formulation of byelaws because they have no mandate to carry out forest policing. Effective empowerment to manage decentralised forest resources needs to recognise local organisations in the rule making process. According to Ostrom (1990) and Arnold (1998), local authorities are motivated to devise rules for managing forest resources sustainably when their rights to devise rules are not challenged by external or central government authorities. Thus, local governments and local community organisations in Uganda can make meaningful and independent forest byelaws only if the central government devolve significant discretionary decision-making powers over forest resources management. Legitimate powers over forest resources create confidence in local organisations, thus ensuring effective use and management of forest resources.

Partnerships as a strategy for enhancing human and physical resources capacity

Nearly all the organisations experience inadequate human resources and physical resources such as computers, communication facilities, and transport equipment in the forestry sector. Transport and communication equipment such as vehicles and telephones are essential in linking field teams with forest managers. In addition, access to computers and Internet services is essential for networking and to access new information on forest management systems. Naka *et al.* (2000) and Kowero and Spilsbury (1997), noted that computerised database systems should be an area where local organisations should invest.

We found that, district local governments, research institutes and non-governmental organisations (NGOs) addressed the problem of inadequate human and physical resources by building and establishing networks with other organisations and shared professional expertise to complement their

capabilities. According to Farrington *et al*. (1993), building linkages amongst local organisations enhances professional and technical capacity in the provision of services to local communities. While support organisations had limited human resources, they strategically encourage voluntary participation in their programmes. Community participation in voluntarism increases the organisation's service delivery capacity. This makes them capable of responding better to many challenges than most state agencies (Lewis and Lewis, 1983). Local organisations also link up with other actors involved in forestry, which Romeo (2003) termed as interactive capacity. Linkages amongst partners enable them to combine resources and experiences of other actors in solving forestry and environmental problems, staff training and reduce the cost of monitoring forest resources. Collaboration amongst organisations has also been used as a tool for enhancing the capacity to provide services in forestry organisations in the southern African countries (Kowero and Spilsbury, 1997).

In most decentralised sectors, district local governments recruit their own staff to provide services, but this has not been the case with the forest sector due to inadequate decentralisation of forest governance. We found that the management of decentralised forest resources in local governments was done by staff delegated from the central government, who are central in exercising counter-powers against local governments who hold decentralised powers over forest resources. The challenge for local governments is to ensure that they have accountable staff. A key feature for the implementation of forestry activities is the quality and quantity of human resources because limited professional capacity hinders decentralisation service delivery (Soetarto *et al*., 2001; Johnson, 2002). Analysis of the documents available in local organisations showed that staff recruitment is a priority for the forestry investment. Dykstra *et al*. (1996) and Turner and Meer (2001) suggested that local organisations should invest in personnel because the availability of trained staff strongly influences their future capacity and capability to carry out forestry work. Therefore, considerable thought and planning in local governments should go into staff recruitment and training.

Information assets for local capacity enhancement

We found that each organisation had an integrated work plan encompassing activities undertaken, including forestry. District and sub-county governments have policy and legal documents, monthly and periodic reports on forest management. These are indicators of better planning capacity in local organisations. Most NGOs, CBOs and research institutes have taken a step further to develop, share and distribute visual materials such as posters, calendars, pamphlets, and leaflets about forest resource use and environmental management practices to communities. Free flow of information amongst stakeholders involved in forestry is an indicator of successful community based forest management (Dolon, 2003; Linde *et al*., 2001). Thus, information about forest resource management is one of the critical assets where local organisations have to invest if they are to effectively govern decentralised forest resources.

Fiscal resources capacity

Most organisations received funding from the central government in the form of conditional and unconditional grants and donations. The unconditional grants support decentralised services at the discretion of local governments, while conditional grants fund national priority programme areas and the conditionalities are mutually agreed between the central and local governments (Government of Uganda, 2001; Onyach-Olaa, 2003). We found that local governments raised taxes and levies on a wide range of forestry activities such as timber and non-timber extraction, transportation and processing of forest products. Another strategy used was negotiation of transfer of forest licensing from the central government to the district and sub-county local governments.

Over 90% of the budget for local governments is funded from central government transfers and donations. The revenue from forestry contributes only less than 1% of the total budget in local governments. As a result, local governments plan most of their activities according to the conditions set by the national government, and this limits their autonomy to plan and take into account their local priorities (Government of Uganda, 2001). However, local governments have the power to borrow funds provided the amount does not exceed 25% of the locally generated revenue and will not infringe on the statutory requirements of the local governments (Government of Uganda, 1997). The findings reveal that locally generated funds are inadequate and limit organisations' ability to scale up decentralised forestry activities and in effecting forest monitoring and regulation of forest resource use. To be effective in implementing decentralised forest governance, local governments require a larger share of the national budget (Francis and James, 2003).

We also found that money from aid agencies dominated funding for NGOs, research institutes and civil society organisations. The most important donors are The Norwegian Agency for Development (NORAD), USAID, Danish International Development Assistance (DANIDA), European Union and The World Bank. Local dependence on donor funding limits the autonomy of local organisations to plan according to local priorities and does not always promote self-managed local community programmes because of the conditions frequently attached to the

use of the money (Onyach-Olaa, 2003). In addition, the use of donor funds is unsustainable and may affect the activities of local organisations in case donors withdraw funding before the project could be firmly entrenched as it has happened in many conservation programmes in the southern African countries (Ashley and Roe, 1998). Money from development agencies in most cases should serve as a catalyst rather than long-term financial basis (Pfeil *et al*., 2004). According to OECD (2004), local organisations need skills in mobilising financial resources and also require a larger share of the national budget for them to effectively deliver decentralised services. Effective decentralised forest governance needs local organisations to devise their own internal sources of revenue and mobilise sufficient resources to support themselves as autonomous areas. Decentralised forestry programmes need to be accompanied by a favourable financing strategy and policy, including all sources of finance: locally generated, private, national and international (Larson, 2002; OECD, 2004). This may require broad fiscal reforms, development of adequate incentives and changes in financial flows within the national government.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the findings of this study, the following conclusions can be drawn:

First, local organisations demonstrated the capacity to carry out devolved forestry management functions by formulating forest byelaws, mobilising facilities and technical resources through networking and collaborating with other actors at local, national and international levels. In addition, local governments constitute democratic and downwardly accountable production and environment committee members that are important in mobilising people and resources for decentralised forest management. Another important milestone is the capacity of local organisations to formulate, approve and implement local budgets, draw up integrated development plans that incorporate forestry.

Second, nearly all the organisations experience inadequate human resources trained in forestry, equipment and facilities for planning and implementation of decentralised forestry activities. Local organisations were aware of the barriers and threats to decentralised forestry, and had strategic plans to invest in human resources and equipment and partnership with other actors so as to increase the productivity of those resources. In addition, local organisations demonstrated the capacity to mobilise and manage own revenue from local sources such as taxes and negotiated for a share of funds from the central government for decentralised service delivery. However, locally generated funds, particularly the local taxes were low yielding to enable local organisations make substantial contribution in the promotion of the forest sector.

Third, funds from the central government, NGOs and aid agencies dominate the revenue base of most local governments and other community based organisations involved in the implementation of forestry activities. Thus, local governments and support organisations planned most of their activities according to the conditions set by the national government and donors, and thus limiting their autonomy to plan and take into account their local priorities, including delivery of forest services.

Finally, the capacity of local governments and other community based organisations to deliver services is hindered by the reluctance of the national government to devolve decision-making powers and to transfer adequate financial resources. Local organisations were complementary parts of the national government whose performance relies heavily on the legal and fiscal power transfers from the national government. Thus lack of capacity in local organisations is partly due to conflict between local and national preferences on the disbursement of resources and inadequate design of incentives for decentralised forest management from the national government.

Recommendations

With a top-level policy commitment, additional financial allocations should be made to forestry and more should go into building of technical capacity and physical resources and facilities of local governments, who hold the responsibility for implementing decentralised forest governance. The revenue accruing from forest resources should be equally shared between local governments and the Forest Department to motivate local governments to monitor forest resources as well as to commit adequate budgetary support to the forestry sector. The central government should allocate conditional grants for decentralised forestry to back up the locally generated revenues in local governments for forestry development.

Donor and central government funds need to strengthen local government capacity and ability to stand on their own economically, and to ensure that the incentives for improved local government performance are not restrained by the central governmental fiscal transfer system. Local organisations need to establish a system for basket funding, formulate exit strategies and plans for up-scaling or institutionalisation of decentralised forestry activities at an early stage in a programme since donor funded programmes face financial difficulties once donors pull out. This could be done by integrating donor-financed projects into the District and Sub-county Development Plans of local governments and having a joint government-donor forum for reviewing and implementing donor and central government programmes.

Lastly, considerable planning in local governments and community based organisations should go into recruitment of more technical and accountable staff and strengthening of the existing linkages and collaboration among all actors in decentralised service delivery.

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