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THE ROLE OF DECENTRALIZED LOCAL INSTITUTIONS IN SUSTAINABLE FOREST GOVERNANCE IN THE MOUNT OKU AREA, NORTH WEST REGION CAMEROON

JICENTA N. FONCHA AND ASONGWE G. AZINWIE

Department of Development Studies, Pan African Institute for Development-West Africa (PAID-WA) Buea, P.O. Box 133 Buea, South West Region Cameroon
E-mail: jacinta_foncha@yahoo.com

ABSTRACT

Local institutional arrangements are among the most appreciated reforms of decentralized natural resource policies. This study focused on the local institutional associated contributions and the management in the Mt Oku forest area after management rights were devolved to the community. The institutional analysis and development framework was used to study the institutional conditions appropriate to effective decentralized forest governance and how these relate to sustainability. The framework guided the development of testable hypotheses for the identification and ranking of community activities that leads to forest degradation. It also examines the extent of forest exploitation viz-a-viz the role of local institutions, and assesses the variation of local occupations before and after the introduction of Forest Management Institutions (FMI) as they influence livelihood strategies. The Pair-sample "t" test was used to test significant differences. The student t-test value stood at 4.83 at the 95% confident interval; indicating a reduction in the exploitation of forest resources. Similarly, there was a significant (p = 0.000) variation in the occupation of indigenes after the introduction of Forest Management Plan (FMP). It is concluded that local institutions contributes tremendously in resource governance and conservation in the Mount Oku area but would be more successful when the system governance actors enjoy favorable conditions for information exchange and learning. There is therefore, the need to build the capacity of stakeholders in the area.

Key words: Oku forest area, Local institutions, Cameroon, Decentalized forest goverance.

Introduction

Forests play important role in alleviating local poverty but their management and conservation has often been a source of conflict between centralized state authorities and local communities. Presently, most central governments have adopted decentralization and devolution policies (Colfer and Capistrano, 2005; Barr, 2002) for the proper management of the forest. Decentralization without devolution restricts decision-making power in forest management by the communities concern and in that situation; access to valuable forest resources will be restricted. In Cameroon, the legal framework in forest management gives rights to traditional authorities (custodians of land) and their subjects over land. These policies permits the establishment of legally recognized community forests, in which management of a forest can be devolved to the communities bordering the forest; on the basis of an agreed Forest Management Plan (FMP).

The Mt Oku forest is an important biodiversity hot spot in Cameroon with a high level of endemism. Within the last decades, the eco-site has rapidly degraded and is amongst the earliest to have benefited from forest decentralization and devolution policies in, the country. This was facilitated by the 1994 Forestry law and the 1998 Manual of Application (MINEF, 1994; 1998). With the creation of the Kilum Forest Project in 1987, Ijim Forest Project in1992, and an integrated project in 1995 called the Kilum/ Ijim Forest Project (KIFP). The traditional councils (communities), the government, the conservator (Birdlife International) as Stakeholders. It proceeded with the creation of:- Technical operational Unit (TOU) to manage the proposed Core conservation area that was gazette; the creation of Forest Management Institutions (FMI); the drawing up of Simple Management Plan (SMP) using PRA (forest resources, history of use, availability of forest resources and traditional rules governing resource use) and the drawing up of FMP, blending of Indigenous Knowledge and scientific methods. This study was carried out to identifies and rank community activities that leads to forest degradation, examines the extent of forest exploitation viz-a-viz the role of local institutions and assesses the variation of local occupations before and after the introduction of Forest Management Institutions (FMI) as they influence livelihood strategies.

Local institutions contributes tremendously in resource forests governance and conservation in the Mount Oku area, it would be more successful when the system governance actors enjoy favorable conditions for information exchange and learning.

Study area

Mount Oku forest in the Northwest Region of Cameroon is located between longitude 10°20'E and 10°35'E and latitude 6°07'N and 6°17'N (Fig. 1). The forest area is made up of the Kilum Mountain range and the Ijim Ridge forests. Located 3011 m above sea level, it covers 20,000 ha (Asanga, 2002). The mountain is part of the Western Highlands of Cameroon, commonly referred to as the Bamenda Highland. The summit of the mountain is very cold and clouded, with mean maximum temperature ranging between 16.5–19°C and mean minimum temperature between 19–10.5°C, while the rainfall varies from 2850 to 3050mm yearly. The area experiences two seasons (rainy and dry). The rainy season runs from May to September and the dry season between October and April (Neba, 1982; Numbem, 1985).

Geologically, Mount Oku is formed on volcanic rocks (Tertiary basalt and Trachyte lava), though some uplifting of older granite and gneiss basement rocks has also occurred (Neba, 1982; Furon, 1963). The soils are strongly influenced by the parent materials, altitude, topography and human activities.

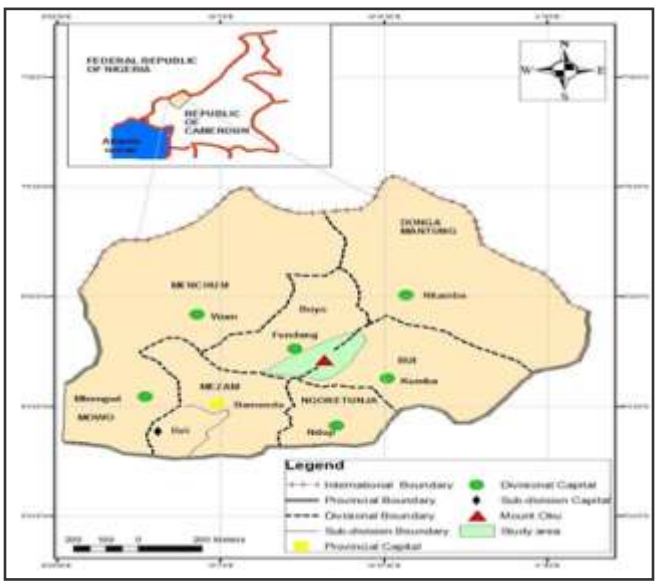

Fig. 1: Map of the North West Region of Cameroon showing the Mount Oku Forest.

Sampling techniques

Reconnaissance survey to get background information of the study area was carried out. Three fondoms (Nso, Oku, and Kom) were identified that make up the Mount Oku Forest Region. A transect walk, was carried out with the aid of two field assistance that were familiar with the study area and identified FMI, Forest Users Group (FUG), Traditional Authorities (TA) and Extension Workers.Using purposive sampling, FMIs were chosen based on frontline and secondary villages. PRA was used in collecting data; the instruments used included: questionnaires, Semi-structured Interview (SSI), group discussions and transect walk. Attendance registers of the various FMIs were also investigated.

Data analyses

Apart from the institutional analyses and development framework, data was also subjected to descriptive and inferential statistics (regressions, and correlations) to test hypotheses using SPSS package version 17.5.

Within the Mount Oku Forest region, the indigenous population carried out a variety of activities for livelihoods that facilitated the degradation of the forest (Table 1). The spearman correlation between these forest activities and forest degradation revealed a highly significant positive strong relationship ($r = 0.474$, $P < 0.01$).

Some of the forest activities were identified as the main causes of forest degradation and the severity of their impacts stood in the order of logging > agriculture > fuel wood collection > grazing > NTFPs collection > bush fire > hunting. At the level of individual communities, except in Bihkov and Upper Shinga where agriculture was ranked first, logging, fuel wood collection and grazing were also ranked as predominant activities in all the communities.

Before the establishment of the Forest Management Project, timber, fuel wood, honey, NTFPs, bush meat, construction poles, palm wine and prunus were exploited in large quantities for commercial and domestic purposes (Table 2), leading to the forest degradation. A paired sample t test revealed significant differences in the quantities of these products harvested

Table 1: Identification and ranking of activities that led to degradation.

Factors	Anyajua	Bikov	Emfveh-Mii	Mutef	Upper Shingai	Total	Per cent	Ranking
1 Fuel wood extraction	19	10	29	15	15	88	16.89	3rd
2 Agriculture	18	23	31	12	26	110	21.11	2nd
3 Grazing	7	19	30	12	17	85	16.31	4th
4 Logging	22	19	40	25	21	127	24.38	1st
5 Collection of NTFB	4	12	14	19	8	57	10.94	5th
6 Hunting	3	3	10	4	5	25	4.80	7th
7 Bush fire	3	5	11	2	8	29	5.57	6th
TOTAL	76	91	165	89	100	521	100	

Table 2: Extent of forest resource exploitation before and after the introduction of Forest Management Project in Mount Oku region

S.No.	Forest product	Quantity exploited before FMP	Quantity exploited after FMP	Change in quantity	% change	Remarks
1	Timber	43 logs	8 logs	-35 logs	-81.4	Decrease
2	Fuel wood	113kg	15 kg	-98 kg	-86.7	Decrease
3	Honey	(20 litres)	(20 litres)	+25 (20 litres)	+39.7	Increase
4	Herbs NTFP	60kg	11 kg	-49 kg	-81.7 NTFP	Decrease
5	Bush meat	21 live games	3 life games	-18 life	-85.7	Decrease
6	Poles	155 kg	27 kg	-88 kg	-76.5	Decrease
7	Palm wine	43 (20 litres)	20 (litres)	-23 (20 litres)	-53.5	Decrease
8	Prunus	105 kg	18 kg	-87 kg	-82.9	Decrease

Table 3: The student t test of comparison yielded at value of 4.83, which was significantly different at the 5% probability level between occupations before and after the introduction of the forest management project.

		Mean	N	Standard Deviation	Standard Error	Studentt	Degrees of	Sig. 2-tailed Freedom
Pair	Before Forest Project Management	60.62	45	51.63	7.70	4.83	44	<0.001
	After Forest Management	44.13	45	49.17	7.33			

before and after the establishment of forest management unit (t value of 5.93 at the 5% probability level) This difference could be associated to the fact that, after the establishment of the forest management project, there were reductions in the quantities of products harvested from the forest except for honey, whose production increased by 39.7 per cent. The quantities of timber reduced by 81.4%, fuel wood by 86.7%, bush meat by 85.7%, *Prunusafricana* by 82.9% and other NTFPs by 81.7%. After the implementation of the Forest Management Project, there was a complete ban of fuel wood collection from the forest for commercial purposes, but dry wood could still be collected as fuel wood for domestic use only. The Ministry of Forestry and Wildlife developed improved techniques for *Prunusafricana* harvesting. This improved the survivorship curve of the trees. Seasonal products such as mushrooms and ripe berries were permitted to be taken out of the forest. Wood meant for tool handles, firewood and ropes from climbing plants were only removed from dry wood, which were rare in the forest. Though bee farming initially accounted for the destruction of the forest through the use of the traditional methods such as fire that occasionally destroyed the forest, implementation of FMP led to a reduction of human activities in forests, especially felling of trees. This resulted to the regeneration of bee loving plants. The plants enhanced colonization of bees resulting to an increase in honey production. Honey harvesting using traditional methods such as fire was prohibited and replaced with non-destructive modern methods. Honey cooperatives were also established. These cooperatives encouraged bee farming as they served as middlemen between farmers and the markets.

Role of the communities in forest management

Most communities' prior decentralization had maintained a long tradition of indigenous knowledge in forest management. Village authorities are empowered to enact bylaws, apply traditional rules to protect the forest. In the area, ancestral worship remains a matter of negritude *e.g.* elderly men often go to the forest unannounced and naked, for traditional practices; venerating the gods. It was a taboo for women and children to watch men naked.

Maximum number of times to enter the forest per family Totems/Authority (leopards) traditional authorities to lay down laws that prohibits the use of plants in the forest.

Local occupation before and after the Forest Management Project in the Mount Oku Region

Anyajua, number of persons reduce from 505 to 384 (121, 23.9%); Bihkov, number of persons reduced from 516 to 402 (114 , 22%); Emfve-Mii, number of persons reduced from 530 to 404 (126 ,24.4%); utef, number of persons reduced from 608 to 400 (208, 38%); Upper Shingai, number of persons reduced from 568 to 400 (168, 29.5%)

Conclusion

There were significant differences in the states of the forest before and after implementation of a Forest Management Project with a student t-test value of 4.83 at the 95% confident interval.It is concluded that local institutions contributes tremendously in resource governance and conservation in the Mount Oku area but would be more successful when the system governance actors enjoy favorable conditions for information exchange and learning.

माउन्ट ओकू क्षेत्र, उत्तर-पश्चिम क्षेत्र कैमरून में पोषणीय वन अभिशासन में विकेन्द्रीकृत स्थानीय संस्थाओं की भूमिका

जिसेन्टा एन. फोन्चा और एसोनगवी जी. एजिनवी

सारांश

स्थानीय संस्थागत व्यवस्थाएं विकेन्द्रीकृत प्राकृतिक संसाधन नीतियों के सबसे उपयुक्त सुधारों में से हैं। यह अध्ययन समुदायों को प्रबंध अधिकार सौंपने के बाद माउण्ट ओकू वन क्षेत्र में प्रबंधन एवं स्थानीय संस्थागत सम्बद्ध सहयोगों पर केन्द्रित है। प्रभावी विकेन्द्रीकृत वन अभिशासन के लिए उपयुक्त संस्थागत अवस्थाओं तथा ये पोषणीयता से कैसे सम्बन्धित है का अध्ययन करने के लिए संस्थागत विश्लेषण और विकास रूपरेखा का उपयोग किया गया। रूपरेखा में समुदाय कार्यकलापों, जिसके फलस्वरूप वन निम्नीकरण हुआ, की पहचान और रैकिंग के लिए परीक्षणीय परिकल्पना के विकास का मार्गदर्शन किया। यह स्थानीय संस्थाओं की भूमिका की तुलना में वन विदोहन की सीमा की जांच और वन प्रबंध संस्थाओं के सूत्रपात के पहले और बाद स्थानीय अधिभोग की विभिन्नता का भी मूल्यांकन करता है, क्योंकि ये आजीविका रणनीतियों को प्रभावित करते है। महत्वपूर्ण अन्तरों की जांच करने हेतु पेपर-सैम्पल 'टी' जांच का उपयोग किया गया। स्टूडेन्ट टी-जांच मान 95 प्रतिशत विश्वस्त अन्तराल पर 4.83 पर था, जो वन संसाधनों के विदोहन में कमी को दर्शाता है। इसी प्रकार, वन प्रबंध योजना के सूत्रपात के बाद देशजों के अधिभोग में महत्वपूर्ण विभिन्नता ($P=0.000$) थी। यह निष्कर्ष निकाला गया कि स्थानीय संस्थाएं माउण्ट ओकू क्षेत्र में संसाधन अभिशासन एवं संरक्षण में अत्यधिक सहयोग करती हैं किन्तु तब ज्यादा सफल होगी, जब प्रणाली अभिशासन कार्यकर्ताओं को सूचना विनिमय एवं शिक्षण हेतु अनुकूल स्थितियां उपलब्ध कराई जाएं। अत: क्षेत्र में हितधारकों की क्षमता का निर्माण करने की आवश्यकता है।

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