Bylaws Formulation and Enforcement in Natural Resource Management: Lessons from the Highlands of eastern Africa

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Abstract: Degradation of natural resources more specifically land, water and vegetation in the highlands of eastern Africa is on the increase even with the presence of natural resource management (NRM) policies and related bylaws. In this paper reasons behind the limited contribution of NRM bylaws in arresting degradation of natural resources in the highlands of Ethiopia, Tanzania and Uganda were studied and opportunities to make NRM bylaws more effective identified. Using key informants’ interviews, focus group discussions, workshops, case studies and literature review it is shown that inadequate community participation in the process of bylaws formulation and enforcement is the main reason for the ineffectiveness of most NRM bylaws in the three countries. When communities are fully involved in the process of NRM bylaws formulation and enforcement and both conventional and indigenous bylaws enforcement mechanisms adopted incidences of abuse of natural resources were reduced by as much as 50 % in some of the study sites.

Key words: Natural resource degradation, Community participation, law enforcing mechanisms
INTRODUCTION

The highlands in eastern Africa are home to over 50% of the population in the region and supply over 50% of the region’s staple and cash crops apart from being an important water tower. Their importance notwithstanding, these areas are experiencing increased natural resource degradation notably land, water and vegetation with serious consequences to livelihoods within and beyond the highlands (Mansuri and Rao, 2004; Mmbaga et al., 2007; Mowo et al., 2007). Consequently, overall agricultural productivity has been declining due to loss of fertile top soils from erosion. Meanwhile, valley bottoms which are largely regarded as the last frontier for agricultural production in the highlands are being rendered unproductive due to siltation. Further, water sources are drying up and water bodies within and beyond the mountain areas polluted due to poor land management and deforestation. Extensive clearing of vegetation for agricultural production and other enterprises contributes to global warming due to increasing greenhouse gas emissions with dire consequences to sustainability of the ecosystem and livelihoods. Given the high population pressure and increasing growth rates a serious crisis over resources is inevitable if adequate measures are not taken soon.

Technologies for improved natural resource management (NRM) abound but their use is limited by a myriad of factors including poor institutional support, lack of market infrastructure, low social capital and ineffective natural resources governance mechanisms. The latter is the subject of this paper. Experience in the region shows that effective NRM requires properly formulated by laws coupled with effective enforcement (Nkonya 2006). Because NRM problems are site specific, participation of the local communities in the process of NRM bylaws formulation and enforcement is vital. This is because they are the ones mostly affected by and are the main cause of poor natural resources management. Effective participation by local communities in the bylaws formulation and enforcement processes requires well informed and committed leadership. Experience in the target countries shows that this is always lacking. For example, Johnson (2003) working in south western Uganda observed that local leaders and policy makers were not even aware of the existing NRM policies and by-laws and that, they were among those who did not practice natural resource conservation. Further, failure to recognize the importance of indigenous mechanisms for bylaws enforcement characterised by lack of close partnership with customary institutions has led to NRM bylaws appearing good on paper and being largely ineffective on the ground (Nkonya, 2006). Different from the conventional statutory institutions local institutions are more participatory, enabling local communities enact appropriate site specific NRM bylaws and enforce them. Local residents can easily identify issues requiring improved governance as well as appropriate policy specifications, illustrating the importance of natural resource governance to local livelihoods and environmental sustainability. As noted by Alino and Kalinganire (2008), by-laws are important for resource management as they constitute an arena of power negotiation between decentralized bodies and traditional institutions. Also, local institutions have the potential to reduce transaction costs by providing for reduced costs in institutional monitoring, enforcement of appropriators and sanctioning of violators (Colding and Folke, 2000).

In this study it is hypothesized that successful NRM in the highlands of eastern Africa depends on the presence of active NRM bylaws at the community level and recognition of the traditional mechanisms for their enforcement. The objective of the
study was therefore to understand the factors influencing effectiveness of NRM bylaws and available strategies for ensuring active bylaws for sustainable NRM in the highlands of eastern Africa. The paper is also discussing strategic ways to bridging the gap between formal and informal institutions in bylaw formulation and enforcement in NRM in practice by Research questions that guided the study were (i) how are bylaws formulated and enforced in the study area, (ii) what is the level of community involvement in the formulation and enforcement of NRM bylaws and (iii) what opportunities are available for enhancing the effectiveness of bylaws on NRM in the highlands of eastern Africa? Effective management of land, water and vegetation will reverse the declining trends in agro-ecosystem productivity, improve food and income security and reverse the rising rural poverty among highland communities in eastern Africa.

METHODOLOGY

Characteristics of study sites
The study was conducted under the auspices of the African Highlands Initiative (AHI) and eco-regional programme based at the World Agroforestry Centre and whose major mandate is to develop methodologies for integrated natural resource management in the humid highlands of eastern Africa and institutionalizing them in partner national agricultural research and development organisations in region. According to AHI highlands in eastern Africa refer to those areas with elevation higher than 1,500 metres above sea level. In addition the study sites are characterised by high population density (>100 people/km²), adequate rainfall (>1,000mm per year) and showing signs of stress such as declining crop and livestock production, excessive fragmentation of land holdings, increasing disease and pest incidences, increasing rural poverty and limited cash opportunities. The study was conducted in 3 sites namely Tuikat Watershed in Kapchorwa District, Eastern Uganda on the slopes of Mount Elgon, Baga Watershed in Lushoto District, north-eastern Tanzania in the West Usambara Mountains and in Galessa Watershed in Dendi District (Woreda), in the central Ethiopian highlands (Figure 1).
Study approach

Different approaches were used to understand the processes of bylaws formulation and enforcement in the target areas. Primary data was collected using key informants interviews, focus group discussions and workshops. Secondary data was obtained from official documents and other literature. Key informants interviews were conducted with local government leaders at different levels (district or Woreda in Ethiopia, sub district and villages) using a checklist to (i) find out how bylaws are formulated and enforced, (ii) understand the level of involvement of local communities in the process, (iii) find out why NRM bylaws are not effective and (iv) solicit community’s views on how the bylaws can be made more effective in curbing the increasing trend in natural resource degradation. Focus group discussions were held with the target communities to get their views on the process of bylaws formulation and enforcement and confirm information obtained from the key informants.

Series of workshops involving different stakeholders (community leaders, farmer group representatives, NGO groups, law enforcing agents and the judiciary) were held to further collect more information on the process of bylaw formulation and enforcement, and share views obtained from key informants and focus group discussions. Case studies depicting different scenario in the three countries are considered to understand how community involvement can be facilitated to address NRM issues through development of more realistic NRM bylaws and ensure their effective enforcement.
RESULTS AND DISCUSSION

Bylaws formulation
In principle the process of bylaws formulation in the three countries are more or less similar and appears to follow democratic all involving processes. Tanzania and Uganda decentralized power to the local governments to ensure more involvement of local communities in decision making including participation in NRM policy reforms and bylaws formulation. Taking Tanzania as an example, the process of bylaws formulation starts with the Hamlet (the smallest unit in a village) (Figure 2) where hamlet members indicate the need for developing a bylaw in a certain issue.

Figure 2: Schematic presentation of the bylaws formulation process in Tanzania

The proposed bylaws are discussed in hamlet meetings and then forwarded to the village council for further discussion and consideration. The village council is made up of representatives of the different hamlets. At village level the bylaws are filtered and selected for further processing. It is at this stage that some of the bylaws considered less important at village level are dropped. Proposed bylaws are then tabled in the village general meeting (VGM) which should be attended by all villagers. Draft bylaws passed by the VGM are forwarded to the Ward Development Council for discussion and consideration and then passed on to the District Lawyer who ensure that the bylaws are well written and do not contradict the core law. The District lawyer forwards the proposed bylaws to the District Assembly for endorsement. Once approved, the bylaws are returned to the respective villages where the Village Executive Officer is required to present them to the VGM and post them
in the village notice boards for not less than 30 days before they become legally binding. Copies of the bylaws must also be availed to the nearest primary courts, police stations, councillors, and divisional and village offices for the respective officers to refer to them when they are implementing their duties in enforcing the bylaws.

In Ethiopia the process of bylaws formulation starts at different levels (watershed, kebele\(^1\)) depending on the issue. For bylaw formulation starting at watershed level a watershed committee elected by the watershed community and representing different villages in the watershed drafts the proposed bylaws which are discussed by the watershed community. After the draft is agreed by the watershed community, it is forwarded to the Kebele administration. Discussions are made by the Kebele council members and watershed representatives. The kebele administration forwards the draft to the Wereda\(^2\) Court where lawyers establish if the bylaws are in line with the different laws and rights in the country. The proposed bylaws are then forwarded to the Wereda Council for endorsement. Once approved, the bylaws are recorded in the main Wereda file. The approved bylaws are returned to the Kebele council and a copy made available to the Zone\(^3\) Council. The Kebele council forwards the approved bylaws to the watershed committee who organize general watershed meeting to inform the watershed community the approval of the bylaws and its date of effectiveness. Like in Tanzania the bylaws become effective after 30 days of endorsement.

Despite of the elaborate processes narrated above the bylaws remain largely ineffective in curbing natural resource degradation in the target areas. The same applies elsewhere in eastern Africa whether in the highlands or otherwise. The study reveals various weak areas in the process of bylaws formulation which contribute to their ineffectiveness in arresting natural resources degradation. In Tanzania and Uganda leaders at hamlet and village levels are the ones who organize meetings and will continue once a quorum is met thus making it more of an official process rather than a community based initiative. This makes the process dominantly top down. Further, as is elaborated in the case of Tanzania the selection by the VGM of which proposed bylaws should go to the next stage overlooks the fact that degradation of natural resources is site specific and hence such a process does not ensure that all the natural resources concerns from a given hamlet are taken into consideration. It may also appear that in the VGM some hamlets might have all their proposed bylaws not passed while natural resource degradation will still continue. That is why for example, in Uganda although decentralization ensured increased community participation this did not result to improvement in the management and use of natural resources (Saito, 2003).

The study also revealed that formulation of most of the existing by-laws did not fully involve the local communities. For example, in Kapchorwa, it was observed that there was inadequate participation of the poor and civil society organizations in NRM bylaws formulation. Failure to involve all possible stakeholders in the process of bylaws formulation would render most bylaws ineffective. Working in South-western Uganda Sangina et al. (2004) observed that limited involvement of local

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1 Kebele is the smallest administrative unit in Ethiopia
2 Wereda is equivalent to district
3 Zone is administrative structure between region and wereda
communities in NRM policy and by-laws formulation processes were among the major factors responsible for the increasing trends in natural resource degradation. Similar observations have been reported elsewhere in the highlands of eastern Africa (Saito, 2003; Stroud and Khendawal, 2006; Lyamchai et al., 2007).

Perhaps the process of bylaws formulation in Ethiopia is close to what one would consider significant involvement of local communities in that the watershed community elect a watershed committee representing the different villages to draft the proposed bylaws. However, there is still that element of some of the bylaws being approved and others not as it is stated that “The approved bylaws are returned to the Kebele council” overlooking the important aspect of the site specific nature of natural resource degradation. The process of bylaws formulation requires more focus on the site where the problem is taking place rather than generalization. Intense consultations are vital, and consensus must be reached at the lower level where the problem is taking place. Generalization often aims at simplifying the process to ensure that there are bylaws in a given administrative area for performance evaluation purposes. This is important where success is measured by the number of bylaws passed rather than the site specificity of the bylaws.

The AHI model on bylaws formulation hinges on full involvement of the local communities and all the stakeholders being affected in one way or the other by how natural resources are being managed. Table 1 summarizes the steps in effective NRM bylaws formulation in Uganda as was facilitated by AHI.

Table 1: Example of the AHI facilitated NRM bylaws formulation process: The case of Uganda

<table>
<thead>
<tr>
<th>Step</th>
<th>What it involves</th>
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<tr>
<td>1</td>
<td>Gathering baseline information and documentation</td>
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<td>2</td>
<td>Observation and review of the existing byelaws</td>
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<td>3</td>
<td>Site visits and identification of stakeholders</td>
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<td>4</td>
<td>Sensitization of community leaders</td>
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<td>5</td>
<td>Capacity building of communities and leaders on draft bylaw formulation to</td>
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<td>6</td>
<td>Compiling and harmonizing the draft bylaws</td>
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<tr>
<td>7</td>
<td>Feedback meetings</td>
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<tr>
<td>8</td>
<td>Presentation to the LC III (Local Council Leader at sub county level: It is the lowest autonomous administrative unit)</td>
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<tr>
<td>9</td>
<td>Engagement of the resident state prosecutor</td>
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The importance of full involvement of local communities in bylaws formulation and the need to focus on the site specific aspect of proposed bylaws is elaborated in Box 1 from Kapchorwa, eastern Uganda in a process facilitated by AHI. The success of such a process is measured by how much the perceived problem was addressed.

Box 1. AHI facilitated NRM bylaws formulation in Kapchorwa, eastern Uganda

In 2001 the Tuikat Watershed in Kapchorwa District on the slopes of Mount Elgon in Eastern Uganda was faced with severe landslides and individual village conservation efforts could not address the problem. A committee to address the problem (Tuikat Watershed Committee) was formed the same year with few men and women farmers whose objectives were to raise awareness on the importance of soil and water conservation, and capacity building on how to plant and manage appropriate tree species. This was followed by Watershed wide campaigns to establish tree nurseries and share experience.

In 2004 with support from AHI the watershed committee embarked on the process of formulation of appropriate bylaws to ensure sustainable NRM. Consultative meetings were held with individual households / farmers, several groups (livestock, those affected / not affected by free grazing and damage to soil and water conservation structures, representatives from all watershed villages, neighbouring communities, and local government leaders from all levels including the district leadership. The committee explored different kinds of bylaws for preventing more damages. They hired an expert in bylaws development to assist in articulating the necessary provisions followed by presentation of the proposed bylaws to local government leaders at sub-county level in 2006 for approval. After the bylaws were approved the role of the committee was expanded to include monitoring implementation and effectiveness of the bylaws. For effective enforcement of the bylaws the watershed committee consult community members on regular basis.

Lessons: Several important lessons can be derived from this case study including:

- NRM bylaws formulation should be based on perceived problems, a common agenda by all involved and a succinct process for identification of the real issues to be addressed,
- Ensure all involved understand the problem (awareness creation), the available strategies and how to address it,
- Adequate consultation (involve all; affected and non affected farmers / villages, neighbours, leaders),
- Capacity building and involvement of expert advice in bylaws formulation,
- Have a structure in place made up of champions for pushing the process (e.g. the Watershed Committee in this case) and
- Monitoring implementation and effectiveness of the bylaws is important

Enforcement of NRM by laws

The study revealed that enforcement of NRM bylaws by the responsible organs was weak and this explains in part the continued degradation of natural resources in the highlands of eastern Africa. These observations are similar to those by Sanginga et al. (2004) in Uganda and Lyamchai et al (2007) and Mmbaga et al (2007) in Tanzania. Among the reasons advanced for this were; (i) Limited involvement of communities in enforcement of by-laws (ii) limited understanding of the law enforcement process
by members of the community and their leaders and (iii) weak leadership. A discussion of these reasons is given below:

(i) **Limited involvement of communities in enforcement of bylaws**
In Uganda the study shows that there was inadequate participation of the poor and civil society organizations in the implementation and evaluation of site and district level policies and programs. In Ethiopia, more often, the local leadership was not fully involved in the enforcement of NRM by-laws and once a case of abuse of natural resource reaches the district court the leadership is rarely consulted a situation which was also observed in Tanzania. Involvement of local communities should include recognition of the traditional systems for enforcement of the rule of law which majority of the farmers indicated they were more effective in curbing natural resource abuse. In Ethiopia efforts at building a centralized state systematically destroyed local community governance and any attempts at collective management of natural resources (Edwards *et al.*, 2007). Consequently, indigenous laws and customs which traditionally governed natural resources have largely been ignored (Edossa *et al.*, 2005) with negative consequences to the status of the natural resources. The study showed that much as government / conventional laws have increased in importance, adherence by the local communities to norms or bylaws has been declining parallel to the importance of customary norms as illustrated in Figure 3 for Uganda.

![Figure 3: Trends in adherence to bylaws - Uganda](image)

The importance of traditional systems of governance is emphasized by Colding and Folke (2000) and Nkonya (2006) who observed that traditional systems were very effective in maintaining law and order in the communities mainly because they were imbedded in norms and culture. The conventional systems currently operating, lack the moral authority of traditional management and therefore sanctions are viewed as unjust and inspire desires for revenge, greatly affecting the effectiveness of the local leadership as will be shown below. Although it would not be practical to fully return to the traditional systems it is essential to re-visit some of the good attributes of the system to reinforce the conventional systems which are not achieving much in reducing natural resource degradation. The case study in Box 2 shows that when local
communities are in control in the management of their natural resources they have often been successful.

**Box 2: Importance of traditional systems in natural resource governance**

In Galessa Watershed, Ethiopia, it was observed that when local communities initiated their own mechanisms for enforcing by-laws they were always successful in addressing NRM problems confronting them (Tesfaye, *et al.*, 2006). Through sensitization, persuasion and frequent meetings greater numbers of farmers were encouraged to participate in soil and water management activities including identification of appropriate locations for common waterways in the Galessa site. It was also used in the management of Eucalyptus around springs and farm boundaries, given the polarized interests around the issue. This approach also enabled agreements to be reached on spring management under a win-win arrangement between villagers and the few farmers whose fields have springs. This was necessary because the latter farmers would deny the rest of the villagers’ access to the springs because they destroy their crops.

(ii) **Limited understanding of the laws enforcement process**

The study showed that most farmers and local leaders in the study areas have very limited understanding of the process of law enforcement. More often this has led to defaulters not being apprehended and prosecuted. A good example was shown in the village of Kwalei, in the Baga Watershed site, Lushoto, Tanzania where village leaders were discouraged when their fellow farmer continued to destroy the village water source while he was under a six-month suspended sentence for the same offence (Box 3).

**Box 3: Limited understanding of law enforcement process**

The farmer in Kwalei Village, Baga Watershed in Lushoto Tanzania, having been given suspended sentence for abusing the village water sources returned to the village and started harassing the village leaders who were responsible for taking him to court. The leadership did not understand this kind of sentence having expected to see the offender jailed in prison. Through a workshop organised by AHI which involved village leaders, the police, the District Attorney and the district courts, the village leaders shared their frustration. The magistrate clarified on the kind of sentence the offender was given and the conditions he was supposed to observe. That is, he was to stay in the village and refrain from breaking any law for 6 months failure of which he would be arrested and sentenced to jail term. This procedure was followed and within a week the culprit was sentenced to 1.5 years in prison to the satisfaction of the village leadership and the rest of the community.

(iii) **Weak leadership**

Weak leadership was found to be an important factor influencing the enforcement of NRM by-laws. Weak leadership contributed to infectiveness of by-laws because some of the village leaders are not daring enough and would like to be seen as ‘good people’. This way, most offenders are left free leading to more degradation of natural
resources. For example, in Ethiopia the study observed that the Development Unit leaders did not fully implement the bylaws and did not open any court cases against offenders in accordance with the formulated bylaws for a long time. In Uganda, effective NRM was limited by poor implementation and enforcement of relevant by-laws due to weak local leadership most of whom would not want to look bad before the community (Sanginga et al., 2004). In Tanzania the presence of two categories of local leaders (elected leaders who are not remunerated and appointed leaders who receive salaries from the local government) has led to a lack of common interest between the two groups. The elected leaders owe their position to the electorate and they need to defend their positions in subsequent elections and hence would like to appear good.

Other common leadership weaknesses observed include corruption and favouritism where wealthy members of the community and relatives are rarely prosecuted when they abuse natural resources. There are also local government leaders who set bad examples for others by not adhering to the NRM by-laws a situation which was common in the Uganda and Tanzania sites.

Opportunities for enhancing the effectiveness of NRM bylaws

Farmers and other stakeholders in the study sites proposed several strategies to ensure NRM bylaws work. These include (i) capacity building and awareness creation of communities and their leaders on the existing NRM and related laws and bylaws, (ii) training of leaders on good governance, (iii) full participation of communities in by-laws reforms and enforcement and (iv) blending conventional with traditional mechanisms for the enforcement of bylaws.

![Graph](image)

**Figure 3: Impact of awareness creation on NRM related convictions in Lushoto, Tanzania**
CONCLUSION

The study shows that successful natural resource management is strongly dependent on having relevant policies and active by-laws at grassroots level. On the other hand, active by-laws are the outcome of strong, skilled and impartial leadership, which is not currently present in the study areas thus calling for concerted efforts in capacity building of community leadership. The involvement of all stakeholders is important for effective NRM. Law enforcers including the courts who are often not involved in NRM projects are therefore indispensable partners in ensuring that NRM by-laws are adhered to. This requires initiatives to facilitate and promote policy dialogue between the different stakeholders and support policy learning and action. Inadequate community participation in the process of bylaws formulation and enforcement is the main reason for the ineffectiveness of most NRM bylaws in the three countries. When communities are fully involved in the process of NRM bylaws formulation and enforcement and both conventional and indigenous bylaws enforcement mechanisms adopted incidences of abuse of natural resources can be reduced drastically. Finally, we should not overlook the traditional mechanisms that were used in the past with so much success in ensuring natural resources are protected for the benefits of the different generations.

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