

Who Knows, Who Cares? The Determinants of Enactment, Awareness and Compliance with Community Natural Resource Management Bylaws in Uganda

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Introduction

Natural resource degradation in developing countries is one of the major challenges affecting efforts to reduce poverty. The rural poor heavily depend on land and other natural resources, and the degradation of those resources is likely to disproportionately affect them. Therefore, developing countries have increasingly become aware of the importance of managing natural resources sustainably as part of their poverty-reduction activities.

Empirical evidence shows that community resource management can increase the efficacy, legitimacy, and sustainability of natural resource management (NRM). Communities commonly use bylaws and other regulations to manage natural resources, but there is limited research on how these regulations are enacted and what determines awareness and compliance.

This paper examines the community regulations used to manage privately-owned natural resources, and analyzes the enactment, awareness of, and compliance with two specific NRM regulations for which there were sufficient observations to warrant reliable statistical analysis—the ban on bush burning and the requirement to plant and protect trees.

The paper uses Uganda as a case study since it is facing severe natural resource degradation and is also implementing ambitious poverty-reduction efforts. The study is based on group discussions with community leaders and key informants from 273 Ugandan villages in all major agroecological zones of the country.

Findings

Econometric analysis of the group discussion data reveals that the following factors are significantly associated with the enactment, awareness of, and compliance with NRM bylaws at the community level:

Enactment:

- Non-Baganda ethnic groups are more likely to enact NRM bylaws than the Baganda. This could be because the non-Baganda groups are more socioculturally homogenous or because the Baganda plant perennial crops with fewer land degradation effects.
- Greater population density decreases the likelihood of enacting NRM bylaws. However, the relationship between population density and enactment of NRM bylaws is non-linear, with a diminishing effect at higher population density levels.
- Communities governed by customary land tenure are less likely to enact NRM bylaws. This is probably due to customary laws and norms on NRM that serve the same purpose as the local council NRM bylaws, eliminating the need to pass additional bylaws.
- The presence of programs and NGOs focusing on agriculture and NRM increases the likelihood of enacting NRM bylaws. In Uganda, NGOs that have a stake in NRM are represented in the local environmental and natural resource committees.

Awareness:

- Proximity to an all-weather road increases the level of awareness of NRM regulations, suggesting that road development facilitates access to information.
- The presence of programs and NGOs focusing on agriculture and NRM increases the awareness of NRM regulations. This suggests these groups can help facilitate both enactment and awareness creation of NRM.

Compliance:

- Communities with more severe poverty are less likely to comply with NRM regulations. The results suggest that there is a poverty–natural resource degradation trap, which raises concerns about greater resource degradation in poor areas. Since anti-poverty measures do not significantly affect awareness of NRM

regulations, low compliance among poor communities is not due to lack of awareness, but to constraints that limit the ability of poor people to comply.

- Literacy increases compliance with bylaws requiring households to plant and protect trees. This suggests that well-educated communities are more likely to understand the benefits of conserving trees, are more able to plant trees, or have less need to cut them because they have other sources of income. Compliance with tree-planting and protection regulations is significantly higher if the regulations were enacted by the local council rather than by legislative bodies outside the community in a top-down fashion.
- Awareness significantly increases the probability of compliance with tree-planting and protection regulations. These results underline the importance of the environmental education that the National Environmental Management Authority and NGOs are promoting in Uganda.

Policy Implications

The presence of programs and NGOs that focus on agriculture and the environment increases the probability of the enactment of regulations and increases awareness of such instruments at the community level. For example, the fact that local governments in the southwestern highlands of Uganda are more likely to enact bylaws is partially due to the active involvement of the African Highland Initiative and other NGOs in building local government capacity to enact NRM bylaws.

Policies and strategies should be designed to make these groups more effective and sustainable in providing critical NRM institutions and building the limited skilled human capacity in the rural areas of Uganda and Africa in general. It is important to create incentives for NGOs to operate in remote areas and to create stronger locally owned and funded NGOs to build local institutional capacity.

The higher probability of compliance with tree-planting and protection regulations enacted by community councils points to the importance of empowering communities

to enact and enforce bylaws as stipulated in the Local Government Act of 1997. However, increasing skilled human resources to manage natural resources in rural areas remains a challenge for local governments all over Africa. Additionally, popularly-elected local councilors may be unwilling to enforce regulations that could offend the electorate. Thus, alternative enforcement mechanisms should be explored.

Awareness of regulations prohibiting bush burning and promoting tree planting and protection is also greater in areas closer to all-weather roads, perhaps due to better access to information in such areas. This underscores the importance of developing roads and markets to increase access to information.

Since promoting literacy could increase compliance with NRM regulations, continued investment in education could contribute to more sustainable NRM, as well as to overall poverty reduction in Uganda.

This study provides evidence that efforts to reduce poverty can help lead to favorable “win-win” outcomes. For example, investments in NGO programs, education, and road development can help to improve enactment, awareness of, and compliance with NRM bylaws, while reductions in income poverty also contribute to improved compliance with regulations. Similarly, efforts to reduce rural population pressure—such as improvements in education, reproductive health, and urban development—can also help increase the enactment of NRM bylaws.

However, some of these measures may lead to trade-offs. For example, more educated households are often less likely to adopt labor-intensive soil and water conservation or soil-fertility-management measures. Hence, special efforts to address natural resource degradation concerns will continue to be necessary when implementing policies and programs that involve trade-offs with sustainable natural resource management.

Keywords: natural resource management, community regulations, Uganda, infrastructure, agriculture, environment

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