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Institutions, governance and incentives in common property regimes for African rangelands

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About 14% of the world's cattle and 21% of its sheep and goats are found in Africa on a land base that comprises 25% of the world's total area of rangelands. Most of these rangelands are or have in the past been managed under traditional systems of communal tenure. Regrettably, the wide variety of institutional arrangements, structures of governance and incentives that characterise these common property regimes have not been well understood or been the subject of much analysis. This paper attempts to fill part of this knowledge gap by providing a framework for the analysis of common property rangeland regimes on the basis of some selected examples in Africa.

Examples of common property rangeland regimes

The case of Lesotho

Lesotho's extensive grasslands are utilised under two resource management regimes: the *maboella* regime which governs the use of village common lands in the lowlands and foothills of the country, and the cattlepost regime which governs the use of mountain grazing areas.

Maboella was instituted in the mid-1800s by Lesotho's first Paramount Chief to protect communal lands for special uses during particular times of the year. *Maboella* rules were enforced at village and local levels by the Paramount Chief's designates who received some compensation for enforcing the rules.

With the advent of colonialism, a number of policy organisations emerged which attempted to 'reform' the customary institutions that formerly legitimised *maboella*. Legislation passed in 1946 prohibited chiefs and wardens from receiving financial rewards for enforcing *maboella* rules. External and internal processes of this sort weakened the basis for enforcing *maboella*, but a few cases of successful lowland village grazing regimes that have built upon the customary institution can still be observed.

The cattlepost regime was established in the 1920s and evolved as a seasonal transhumance system whereby lowland livestock moved to mountain rangeland-cattlepost-areas during the summer months. The regime aimed at co-ordinating the activities of the increasing number of livestock grazed on mountain pastures and at protecting mountain rangelands from over-exploitation. As with *maboella*, the cattlepost regime was enforced by the

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paramount and principal chiefs who granted permission to individual livestock owners to use specific cattleposts.

The cattlepost regime performed the coordination function more effectively than the regulation function resulting in a dramatic reduction of the carrying capacity of mountain pastures. Strict rules adopted since the 1970s to arrest the deterioration of cattlepost areas and restrict livestock numbers on mountain rangelands appear not to have been very successful. Some limited success has, however, been achieved by the USAID (United States Agency for International Development)-supported Sehlabathebe Grazing Association through 'controlled' communal grazing.

Eastern Senegal's pastoral units

Eastern Senegal is the site of one of the World Bank's most successful projects in collective management of rangelands. Covering an area of approximately 14,000 km², the project area is populated by about 70,000 people, largely consisting of agropastoralists.

Nationalisation of land in 1964 undermined the traditional authority system that governed access to and use of land based on lineage and caste. With the influx of transhumant pastoralists following the drought in northern Senegal and Mauritania, overgrazing and land-use conflicts were intensified, which led to the transformation of the former common property regime into an open access situation.

The World Bank project was launched to address these problems. In its first phase (1976-83), the project established 53 pastoral units comprising 8 to 10 small agropastoral villages each. These villages collaborated with the project in the delivery of supplemental feed and veterinary supplies and served as collective credit guarantors. In the second phase of the project (1984-88), the pastoral units took on common-property rangeland management (i.e. administration of grazing rotations) as a secondary activity and were accorded legally defensible communal rights to grazing lands and watering points.

Comparison of the case studies

The three rangeland regimes reviewed represent some of the variety of rangeland regimes that prevail across Africa. While all of the regimes meet the definition of common property regimes, all have different political and institutional structures.

In all three regimes, the effectiveness of the customary regime depended upon the strength of the authority structure on which it was based, be this of chieftaincy (Lesotho) or lineage and

caste (Senegal). In all cases, the customary authority structures weakened with the advent of colonialism and increased commercialisation, resulting in less effective implementation of customary institutions.

A few instances of effective common property management remained in these regimes which owed their success to a combination of customary authority, new organisations and decentralised actions of individual livestock owners. The successes reported in Lesotho and Senegal depended in large part upon the actions, strengths and leadership of customary chiefs, the willingness of village residents to comply and enforce grazing regulations, and the provision of a legal and technical framework providing support to the customary institutions.

institutions, governance and implementation

As illustrated with the case studies, African rangeland regimes consist of diverse institutional arrangements. These arrangements translate into grazing and water use rights, rules enforced by customary authorities, self-enforcing social institutions or conventions, and externally or internally enforced contracts.

Fundamental to the operations of these common property regimes is the authority systems that sanction right, enforce rules and define the contexts in which conventions and contracts are negotiated. Authority systems are concerned with governance, which is the process of deciding what a collective will do and how it will do it. The process of governance defines institutions and to understand them, it is necessary to consider the nature of the authority system, the process of governance and the implications of those processes for the implementation of institutions.

Besides institutional diversity, rangeland regimes also exhibit considerable customary governmental diversity. Many agropastoral groups in eastern and southern Africa have or had centralised governments with hierarchical political structures in which chiefs perform executive, legislative and judicial functions. In contrast, most pastoral groups in eastern and western Africa have diffused customary governments with relatively egalitarian elders' councils holding legislative and judicial authority, or minimal (non-existent) customary governments with neither chiefs nor elders' councils with authority to enforce rules.

The structure of government under which a common property regime operates determines the type of institutions (including rights) that can be implemented to govern relations among members and between members and non-

members. To implement group rights, a body performing these functions must be able to interpret the aims of the larger society and of groups, to judge between the rights and duties of competing groups, and to enforce sanctions on individuals, groups and collectives of groups. Evidence suggests that national governments are better suited to the enforcement of group rights, especially in terms of defining boundaries between group resources and enforcing sanctions on those who violate these boundaries.

Since they are not rights, conventions and internally enforced contracts can be enforced without central government units and govern relations between and within groups of resource users. A minimum condition for the effectiveness of internally-enforced contracts both within and at the boundaries of regimes is, however, the existence of some social authority that enforces rights or rules regulating the entry of new individuals and groups, the mobility of individuals between groups, and the mobility of groups between sovereign polities.

Expectations, incentives and institutions

The structure of governance determines the necessary, but not sufficient, conditions for the successful implementation of institutions in property regimes. Implementation of these institutions requires action on the part of particular individuals (e.g. those responsible for enforcing rights and rules) who respond to their own expectations and incentives. The incentives of these individuals depend partly on their relationships with the external political and legal system and their local constituents, and partly on the benefits and costs they derive from enforcing rules.

The users of the collective rangeland resources themselves have incentives to demand resource use rules and, at the same time, incentives to deviate from such rules. The incentive to deviate depends upon the external gains from deviation, the probability that others resource users will comply or deviate, the probability of being caught and punished, the likely severity of the punishment and changes in group size. Although certain internal rules tend not to be self-enforcing because of individual incentives to deviate from them, the literature on internally-enforced contracts suggests other mechanisms by which internal agreements on resource allocation can be maintained without external enforcement.

Policy implications

Common property rangeland regimes in Africa are systems that are evolving and responding to exogenous political, economic and ecological shocks. African rangelands are currently under pressure from different factors including: increasing competition for livestock, land and water resources between pastoralists, cultivators, conservationists and external investors; greatly reduced economic and political power of customary authorities; appropriation of communal rangelands by governments; and declining importance of livestock and agriculture for creating employment and generating income. These factors are serving to undermine the efficacy of customary common property institutions in Africa.

To address the problems of African livestock development effectively, feasible policy objectives must be formulated and appropriate policy instruments designed. Effective implementation of group property rights requires a central authority that can arbitrate between the interests of broad groups and enforce boundaries and agreements between groups in clear and unambiguous terms.

Effective group rights will only lead to efficient resource allocation if there are effective mechanisms for internal governance. The effectiveness of a formal structure of internal governance will depend upon the incentives of individuals whose roles are to enforce rules (e.g. village chiefs) and resource users who are expected to comply with the rules. Internally enforced contracts are mechanisms for internal governance that can be effective with little or no internal authority system. External agencies can facilitate internal contracts through various support mechanisms.

Overall, policy makers in Africa need to search for ways to facilitate institutional change that will make common property regimes more resilient and better able to allocate resources to the mutual benefit of those who share their access. Priority should be given to group rights and the internal institution-building capacity of local groups and communities.

For more information on this issue see: Swallow B.M and Bromley D.W. 1995. Institutions, governance and incentives in common property regimes for African rangelands. *Environmental and Resource Economics* 6:99-118.