



Managing Natural Resources along the Mozambican Shoreline

The Role of Myths and Rites

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Mozambique is a country both rich in natural resources and increasingly threatened by the depletion and degradation of this heritage. Years of war, economic pressure, falling crop prices, urbanization and climate change have begun to have drastic effects on the country's resource base. Though 10 percent of the land is kept in forest reserve, large stretches of land have been denuded, particularly along the borders with Zimbabwe and South Africa. Major areas of coastline are suffering from pollution from industrial and agricultural run-off. Population pressure has resulted in the near disappearance of the large wild animals that once inhabited much of the country.

Depletion of natural resources is a national issue, but it is also a local one. As in many developing countries, numerous Mozambican communities depend for their survival on the judicious exploitation of their physical environment. Managing them so they remain available generation after generation is the key challenge. Nowhere is this felt more acutely than along the country's extensive coastline, which stretches almost 3,000 km. from the Tanzanian border in the north to the frontier with South Africa. Communities all along this natural barrier rely heavily on harvesting the resources of

the sea: fish, mussels and other forms of marine life. They are a source of protein and a source of revenue. The importance of this bounty to the community's very existence has given rise to a complex of rites, myths and rituals. These serve both to enshrine the sanctity of the environment and to "manage" its communal exploitation.

How do these "indigenous" forms of management function and how — if at all — can they be adapted to master the new challenges to the natural resource base: population pressure and pollution? Local institutions in Mozambique are just beginning to come to grips with the issue, but their experience is instructive.

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The mussel farmers of Zimilene

Zimilene is a small village situated at the mouth of the Limpopo River in the Gaza Province of southern Mozambique, a few hundred kilometers north of Maputo. It is also known by the locals as Kamhula, Inhampurra, or Zongoene. In this region of the Indian Ocean, rock formations have created the basis for a thriving local economy and the focus for a particular spiritual understanding of the relation of people to their environment.

The rocks lie close to the surface in areas of water rich in phytoplankton, providing a rich milieu for the growth of dense mussel colonies. For years, the villagers have harvested this resource yearly, using it as a source of protein and of revenue. For them, the rocks were placed at that point along the coast by divine intervention and have been there as long as collective memory can recall.

The community believes that their ancestors became the owners and stewards of these rocks when they settled in the region. The principal original families to take up residence along this part of the coast — the Bunzula, the Palate,

Machava, Nhanicuma, and Nhabanga — parceled out the resource and assumed responsibility for the management of the mussel shoals, guided by the guardian spirits of their clans. Each family assigned guards to watch over the mussel beds. But family representatives function under the supervision of a higher local authority, the Chief Zimila, a lineal descendant of the first person to have occupied the region, whose clannic spirit is considered more powerful than those of the family lineages. The system ensures a source for resolving conflicts and allotting usage rights that are accepted right down to individual community members.

The catch of the mussels

Mussels are normally harvested during the cold season in Mozambique, between March and August. In the early months of the year the first signs of mussels appear along the shoals, and the colonies start growing. As soon as these signs are detected, the guards of each mussel bed inform family chiefs of the event, requesting permission to begin the cleaning of algae and other weeds that enhances mussel growth and eases harvesting. This weeding of the beds requires much care, as it is easy to damage the young mussels. Thin sticks and machetes are used for the purpose. Once the "field" is clean, the mussels grow much more abundantly.

Under normal circumstances, villagers are not allowed to begin harvesting until the mussel beds have reached full maturation. Special dispensation is allowed, however, in cases of emergency or pronounced need, such as famine or visits from unexpected visitors. This early harvest is carefully regulated and limited by the family and supreme chiefs. Also, the role of the chiefs is to ensure an even distribution of the resource between the villagers. This is also ensured by a local saying — "the mussel is eaten in community."

When the mussels are fully mature, the guards blow whistles throughout the community to inform everyone, even those who are not from the village itself, that the catch is open. Outsiders have traditionally been allowed to harvest mussels along with local residents as a form of hospitality. Each person collects what their family needs and hundreds of people may turn out to harvest the mussels. The work is arduous and can be dangerous as well, due to the possibility of accidents. For this reason, collection is not carried out randomly and everywhere at once. Rather the work starts at one end of the rock shoals and slowly moves to the other end. This allows family and community chiefs to keep control of

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Editor: IK Notes
Knowledge and Learning Center
Africa Region, World Bank
1818 H Street, N.W., Room J5-055
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E-mail: pmohan@worldbank.org

events and provide immediate care for anyone wounded. They are also charged with ensuring a fair allocation.

The “spirits” and the rule of law

The authority of the chiefs to regulate the mussel harvest is anchored in the firm belief that the spirits of the ancestors watch over the shoals. The guards posted by each family leave the rocks at sunset and the spiritual guardians from each lineage are considered to take over the role of protector until sunrise. That spiritual patronage is celebrated in rite and myth.

“We talk to the spirits embodied in our *curandeiros* (traditional priests) or called by them,” explains the chief of the Banzula lineage. “The spirits teach us how to preserve the rocks. It is to keep the spirits happy that we do our ceremonies, so that they will protect the rocks and the mussels.”

Ceremonies are in fact held at two levels; within each lineage or family and for the community as a whole. The chief of each of the families takes charge of ceremonies for the portion of shoals under his lineage’s responsibility. The community-wide ceremony is presided by the Chief Zimila himself and includes all families in the region. Before organizing the large ceremony, the paramount chief consults with all the family chiefs in a meeting of the council of elders. Family chiefs are responsible for catering the event..

All members of the community are expected to participate in the large event as well as to contribute goods for catering the ceremony. The contributions are remitted to the family chiefs who in turn hands them over to Chief Zimila. One ceremony is held before the catch is open to ask for a good mussel harvest, and another when it is over to give thanks for the bounty received.

The spirits are believed to have an important role in sanctioning those who violate the rules. As one family chief puts it, “During the day each family has a guard who controls access to the rocks. At night the spirits of each family guard the rocks until sunrise. Everyone knows they cannot take this lightheartedly. Violators risk being thrown into the sea [by the spirits] or being unable to leave the collection area, never finding their way back home. The path to their houses becomes deeply dark.”

Stolen mussels are also believed to be poor fare. “Once in the cooking pot,” the chief says, “the mussels can be boiled for a full day without ever becoming cooked. No one who knows these rules wants to risk (the sanctions of the spirits).”

The challenge of cross-breeding systems

The local system of myths, beliefs and rites in Zimilene preserved the mussel shoals for generations, but under the pressure of the changes afoot in Mozambique they have become more than a local resource. In recent years the population of nearby cities like Xai-Xai has had increasingly easy access to the Zimilene shoals, and at the same time the pressures of poverty and population density have pushed them to exploit the mussel beds in ways inconsistent with traditional management and with survival of the resource.

The families of Zimilene appealed to administrative authorities to help solve the problem and save the mussels. After consultation, it was decided to put in place a Mussel Rocks Management Committee, composed of the traditional leaders and one or more representatives of the administrative authority. The regional chief supervises selection of delegates from the family lineages responsible for each stretch of shoals. On the administrative side the head of the administrative post of Chilaulene, which encompasses Zimilene, either serves on the committee or picks someone to represent him.

The committee serves both to give wider sanction to the rites, ceremonies and regulations of Zimilene and to deal with violations, particularly by urban dwellers and other outsiders who are increasingly drawn to the mussel beds. In fact, “violators” are principally outsiders because, while strong beliefs prevent most local people from poaching on the beds, city-dwellers typically do not have the same belief system. The committee therefore has the authority to recommend a variety of administrative or even penal sanctions for those who violate the usage rules of the mussel beds.

Consequently, in the initial operations of the committee, the traditional and spiritually sanctioned management system was simply placed side-by-side with a more “modern” and administrative one. The first applied to local people, the second to outsiders.

But this “split personality” solution also has its weaknesses. For one thing, outsiders may be able to more easily evade administrative sanction than insiders feel they can evade the wrath of the spirits. For another, increasing outside pressure on the resource base would likely result in the administrative apparatus and system of penal sanctions taking on increasing importance and the traditional and spiritual one shrinking in scope until it was only a folkloric remnant.

The challenge facing the committee is therefore how to “cross-breed” the two systems — how to infuse what must be a more widely administered regulation system with some of the essence of traditional management, with its reverence for natural resource and internally-driven compliance.

Two directions have opened up, but it is not yet sure whether either, both or yet another will be principally adopted. One solution involves expanding the role of family guardians both logistically and spiritually by assisting them in ensuring twenty-four-hour monitoring of the shoals as the embodiment of ancestral concern for the sanctity of the entire nation’s resource base. Another, perhaps a complementary but longer-term one entails using some of the *curandeiros* to teach ecological responsibility in schools and campaigning for a new region-wide ethos of respect for the environment.

The traditional mechanisms show that rural communities have their own ways to explain the world and to protect their own resources. Such examples can be found in various regions of the country, where resources such as forests, land and fish and seafood are protected through these mechanisms. They allowed for these resources to be used by generations of people without endangering their availability.

Yet the use of such myths and rites cannot easily be generalized, because they are closely tied to place and historical experience, and are sanctioned by a particular set of ancestors. Other Mozambicans do not share the same history and “cosmogony” as the population of Zimilene. But they do share, to some extent, a common fate, as a community, a common risk of resource depletion and alienation from their physical milieu. The challenge of the mussel shoals, repeated in many sites around the country these days; is how to blend traditional systems of regulation, myth, and ritual with a necessary administrative armature to build new communally shared meanings and a new culture of natural resource management.

This article was written by Fernando Dava, Zuber Ahmed, and Peter Easton. Fernando Dava is Director of ARPAC — Arquivo do Património Cultural, Mozambique; Zuber Ahmed is an independent consultant in Maputo, Mozambique; and Peter Easton is Associate Professor, Graduate Studies in Adult Education, Florida State University.