



Indigenous Livelihoods Enhancement Partners

ILEPA

"Enhancing Indigenous Resiliency"

INDIGENOUS KNOWLEDGE SYSTEMS AND PRACTICES



A VALUABLE BUT NEGLECTED RESOURCE

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INTRODUCTION

Indigenous knowledge (also referred to as traditional knowledge) held by resource dependent communities is now recognized as essential to biodiversity conservation. Around the world, local communities formerly painted as environmental villains, are now celebrated by international conservation agencies as important allies as being closer to nature and fostering a sacred source of ecological knowledge.

These reflects research based-based arguments that knowledge claims of local people are intimately connected with historical understandings of their landscapes and complex ecological processes at the local scale and should be incorporated into conservation science, development and planning.

At the international platform this positive shift towards recognition of traditional knowledge is reflected on a number of global processes such as climate change and biodiversity negotiations amongst others. At the national level, no less the national constitution of Kenya that calls for the recognition, protection and promotion of indigenous knowledge and innovations.

Although Maasai indigenous knowledge is evoked in conservation planning proposals, Maasai participation as knowledge actors in conservation activities on their lands remains extremely limited. This is often, related to the reluctance by scientific and state agencies to relinquish power and devolve decision-making and knowledge creation processes to local people.

Indigenous Livelihoods Enhancement Partners (ILEPA) has made a number of contributions in the area of Indigenous knowledge systems and practices through research and publication in the context of climate change, pastoralism and land tenure among the Maasai. The application of these knowledge has been highlighted in the field of community based monitoring information systems and Pastoral bio-cultural seasonal calendars. These publication presents part of the work undertaken by ILEPA and its partners on indigenous knowledge among the Loita Maasai in Narok county, southern Kenya.

The Case of Naiminie Enkiyio Forest and Pastoral Maasai Indigenous knowledge Perspectives in the Management of Natural resources

The forest is essentially at the core of the very existence of this indigenous community. There is hardly any activity undertaken by members of this community that has no either a direct or indirect relationship with the forest/ nature. The connection between the people and the forests transcends all social divisions of gender, age and other social stratifications within the society. Men and women; the old and the young alike are connected to the forest in unique ways in their daily livelihoods activities. Oloiboni (the spiritual) leader, for example, can hardly perform any of his ascribed rituals, roles and duties apart from the forest.

The forest and the diverse resources within it appear to provide the medium/ bond through which the Oloiboni can commune with the ancestors and the supernatural in his mediation role between the divine and the mortals.

The Ilpayian (adult males) and their livestock herding and grazing duties see the forest as the resource of ultimate security/ insurance against drought and famine. It is the source of all waters and medicinal plants. The forest and all its provisioning services is at the centre of the Maasai social and cultural identity evidenced by the fact that all rites of passage from birth to death utilize some aspects of the forest. The small population of Iltorobo (hunter gatherers) found in Loita area, derive their livelihood directly from the forest. Here, they hunted and collected honey and have since settled among the rest of the Maasai, intermarried and become integrated with the Maasai culture, though without entirely rejecting the traditional mode of production.

Like their male counterparts, the forest means everything to women too. Women are the caretakers of members of the household on a day to day basis. The woman in the home builds her own house and looks after the children and the welfare of her family unit, including her husband. She is responsible for her portion of livestock from which she gets milk for the family. She is also responsible for gathering firewood.

Women are not passive social actors in this whole question of environmental and natural resource management and utilization. As resource users, healthcare providers of the sick members of the households, Traditional Birth Attendance (TBAs) and participants (directly or indirectly) in all indigenous cultural and ceremonial practices within the community; women remain right in the centre of this discourse both as indigenous knowledge generators and holders; and as immediate victims of negative impacts of environmental changes, including climate change. In the context of the Maasai, women are known to be involved in harvesting traditional herbal medicines, especially as TBAs, Mothers taking care of their young ones and as traditional medicine healers (Enkaiyukoni) - treating several ailments using herbs from the forest.



Left: Maasai elder and her collection of dry firewood/ twigs

For the Warriors the forest, is a training ground for combat, a learning space on flora and fauna, including wildlife and medicinal plants (and their uses), geography, stamina building through meat and herbal soup feasts – *Ilpuli* – sometimes lasting several months. The strong indigenous peoples’ conservation morality that has sustained biodiversity conservation in the locality for ages is inculcated here. A selection of respected elders from the villages acts as tutors, in this crucial exercise of intergenerational transfer of indigenous knowledge across successive generations.

The forest provides nutrients for children. It provides the best learning opportunities for children on matters related to nature, environment and general community livelihoods activities. Childhood activities such as herding of livestock and traditional folklore/ story-telling often enacted in the evenings by the fireplace under the wise guidance of experienced grandmothers, provides early opportunities for apprenticeship in indigenous knowledge systems, values, belief systems and norms that promote positive relations between people, nature and the supernatural, ultimately contributing towards environmental sustainability. The forest provides a link between generations. The fact that, the forest is named after a lost child – Naiminie Enkiyo – is testimony to this fact.

A glimpse of Indigenous Peoples Perspectives

Local Indigenous Maasai communities use a wide array of terms to describe the forest and natural resources within it. These terms provide a glimpse of how the indigenous communities view their relation with forests in the context of their livelihoods practices. Some of the terms reflect the indigenous peoples’ view of forests as a source of insurance and safety nets against droughts for example. Terms such as *saru-enkiteng (that which saves the cattle)* and *Saru Maa/ saru tung’ani* (that which saves/ redeems the Maasai community or mankind) are some of the examples under this category of meaning. Forests are a critical pastoral resource during the dry seasons as a source of both water and pasture. Still other terms connotes the quality of forests’ regulatory and provisioning services. *Mmenangi atua*, is a term which means ‘that which in it life is always sustained’.

These terms include for example, *Noo Nkariak pusi*, (that of blue waters) implying purity and minimal/ non-polluted state of the forest ecosystem, and *nakenyu aigil*, (that which in it, the sun rises twice). The second term here also implies minimal exposure to heat radiation from the sun. Still, a term like *Osupuko le Mokompo* (the highlands forest of Mr Mokompo) introduces the spiritual dimension through its connection with Mokompo (the current chief prophet or seer of the entire Maasai community). Additionally, some terms may simply refer to some of the key products derived from the forest. This includes terms such as *entim oo Naishi (the Forest of honey)*.

The terms listed in the preceding paragraph form only, but a small portion of a rich diversity of indigenous peoples’ description of their relations with forests. The terms do not only serve to describe indigenous peoples’ relation with forest, but they equally inform management approaches and resource utilization practices. The terms therefore

translate to differentiated forms of ownership, access and control of sections or specific products from the forest. This differentiation may include identification of grazing and watering areas for livestock use; sacred sites and trees for spiritual activities; sites for enactment of various cultural practices including rites of passages; sections for firewood, medicinal herbs and honey harvesting amongst others. The control of these sites could be under individuals, groups or the entire community.

Allocation of use rights would be determined by the socially ascribed roles to perform certain duties related to particular forest sites and resources; and the centrality of particular practices in fostering community shared identity, values and norms.

Grazing: Predominantly, Maasai society have for ages practiced livestock rearing as their primary traditional livelihood production and support system, managed through pastoralism, with increasing diversification towards agropastoralism, tourism related activities, paid labour and other market oriented practices. Until very recently land has been collectively held and managed under customary tenure regulated by indigenous values, norms and belief systems informed by indigenous knowledge. Central to the practice of pastoralism, is herders and herd mobility in response to temporal variability of pasture, water, salt-licks, disease incidence, and other factors such security and access to markets within the pastoral landscape.

During the wet season, grazing is limited to specified zones within the home range, with grazing range often corresponding to closely related villages or clans, granting them limited and differentiated rights of access. During the rainy season, livestock stay in the rangeland (*Olpurkel*), which has wide grassy plains and salt licks. The Maasai communities living adjacent to the Naiminie Enkiyo forest understand the role that the forest plays as a water catchment area and a source of water in dry seasons and drought years. It is extremely rare to find community herds grazing in the forest during the rainy season. Even the community members living close to the forest resist this temptation.

Access to and establishment of permanent settlement close and inside the forest is closely monitored and regulated. In the context of grazing, the forest only serves as dry season grazing, thereby serving as an important source of security – pasture reservoir/ grass bank. Never before was this critical role of the forest exemplified than during the 2008/ 2010 devastating drought. While livelihoods were literally shattered amongst other pastoral livelihoods in the country, the Loitan stood out as an island of refuge with negligible livestock losses (if at all) on account of drought.

Firewood: This is the main source for energy for most of the households in this locality. The task of fetching firewood is often allotted to women who collect the firewood from the most convenient places, normally the nearest, and from areas where the specific species of interest, mainly *oloirien* (wild olive, *Olea africana* ssp. *europaea*), may be found in plenty and in the dry form. For each community or village, there are specific areas for firewood collection where most women go. Although a great number of species can be used as firewood, whatever their species, it must always be dry or dead wood.

Sacred and cultural value: *Ilamala loo nkituaak*, Women fertility blessing ceremonies, inauguration of *Olorrip olassar* - two important indigenous peoples cultural practices - for example, demonstrate that the forest has considerable spiritual, cultural and emotional value and thus many rites of passage and other important rituals and ceremonies either take place in it or incorporate the use of particular tree species. The women fertility blessings ceremony addresses concerns for women who are perceived to be barren. White soil (*enturoto*) for warriors and circumcision ceremonies is found here.

All these cultural activities are regulated and guided by *Oloiboni* and elders. Because of this, the Loita community sees the spiritual leader, the *Oloiboni* as the custodian of the forest. The *Iloibonok*, have permanent rights and access to certain areas of the forest for their functions. Certain resource types, like a tree referred to as the *oltukai*, are only meant for Iloibonok use for the performance of these traditional rituals.

Watering points: Watering points belong to the whole community. These points are protected and their access highly regulated by elders. Specific points are identified and set aside for livestock watering and others for domestic water harvesting. Women in particular play a key role in monitoring water levels and quality for sources of water dedicated for domestic consumption while their male counterparts do the same for livestock watering points.

Ensuring regular supply and controlled access/ use of water for livestock is essential in the context of pastoralism because it influences availability and effective utilization of pasture.



Watering points: Access to Water-pans and rivers are strictly regulated

Construction: Most of the indigenous peoples' structures that may require use of forest resources are often simple in design and often making use of mostly dry wood and twigs. In the context of the Loita Maasai - the major structures are the traditional houses and the livestock enclosure fences. A Maasai traditional house is a simple structure made up of entirely wooden poles, and interwoven twigs/ branches and smeared/ cemented with cow dung. Specific species are preferred for the different

parts of the building.

The fence around the homestead and animal enclosure also uses branches of particular thorny bushes, and rarely tree trunks. The traditional way of fencing is by piling up branches of thorny acacias and *oleleshua* or, where thorny material is limited by sticking *oleleshua* and *olmisigiyoio* (*Rhus natalensis*) into the ground. Other species used for dead fences include olaimurunyai (*Maytenus heterophylla*) and olodonganayioi (*Myroxylon aethiopicum*) Wood for such constructions is freely obtained from any part of the forest without having to obtain permission.

Extraction of large quantities, especially of specific species, is however under strict control by the elders.



A traditional Maasai village with cattle pen

Cultural and Ceremonial Uses: The indigenous Maasai culture and social organization reflects a very rich and diversified customary systems and practices characterised by numerous ceremonies and rituals. In almost all of these ceremonies and rituals the forest, specific species of plants/ trees in the forest, and parts of trees and or plants play essential roles.

These ceremonies include those associated with significant life cycle events such as the rites of passage - naming, circumcision, Marriage and death - as well as being used to fight disease, to combat infertility, for blessings and to settle disputes. A number of studies in Loita for example have identified at least 24 species of plants used among the Loita Maasai during various ceremonies and rituals. The *oloiboni*, the spiritual leader uses a variety of plants to make charms for cursing, bewitching or treating people.



Left: Age-set inauguration ceremony, holding special sticks from , and Right: Eunoito Ceremonial emanyata, ritually bringing the left and right age groups into one age-set

Food and medicinal uses: Just as there are many tree species and plants used in ceremonies and rituals within the community, the same is true in the context of food and medicine provisioning. Over and above the direct and indirect benefits from the role of the forest as environment regulator, a wide variety of plant species and parts serve as a direct source of food and nutrients. The parts of plants taken as source of nutrients, water, medicinal value, exercise for the jaws and to pass time, range from their stems, roots, barks, galls, tubers, leaves and fruits. Although consumed as snacks, fruits constitute a major part of the food utilized by all members of the community when herding, fetching fire wood or water out in the forest / wilderness.



Left: An elder tapping Herbal Medicine . Right: Ilamuriak Wildfruits, Enkutoto Loita forest

One research by Maundu et al. (2001) identified about 90 species used for medicinal purposes in humans. The vast number is an indication of the important role played by

forests/ plants in the health of the local community. The importance of medicinal plants among the Maasai can be seen in the name, *olchani*, which is used both as a general name for all plants as well as for medicine. Some species are used for the treatment of more than one disease.

Needless to say, a variety of personal and household items are carved from various plant species derived from the forest. These items range from weapons of war and protections including clubs, spears and machetes' handles, arrow shafts, to household items such as seats, serving spoons amongst others.

Indigenous Institutions & Customary Law

Four broad customary institutions of governance are central in the socio-political and cultural organization of the Maasai society namely: *Olosho* (12 territorial section); *olgilata* (clan), *Olporr* (the age-set system) and *enkidong* (the guard, office of the prophet). Although each of these institutions has a clear jurisdiction, be it territorial, thematic, or lineage related, they also serve to reinforce each other while at the same time providing checks and balances, including in the management of

The institution of *olsho*, essentially encompasses a geographical region owned and controlled by one of the 12 sections of the Maasai ethnic society, the *Ildamat*, *Keek-onyokie*, *Purko and Iloitai*, *Isiria*, *Ilmoitanik and Ilwuasi nkishu*, are for example resident in Narok county. The governing organ of Olosho is the council of elders, and decisions made at these level concerns interaction between one section and another; and generally section's relations with the external environment. Regulation of grazing patterns and management of other natural resources such as forests and water points falls within their jurisdiction. It is difficult to imagine the office of *Oloboini* apart from the forest. To begin with, *Oloboini* uses a gourd (*Lagenaria siceraria*), herbs and a collection of other paraphernalia both for healing, and for prediction of future events, all of which originate from the forest

Customary law and Regulations on Forest Management

Regulations with regards to natural resource management at the Loita Community level are based on customary law. It is an all-encompassing law as long as people continue to live within the strictures of Maasai life and indigenous belief system and as long as the outside world does not encroach on the inner, traditional. A number of customary institutions and emerging hybrid ones – all participate to contribute to the adherence to these regulations which are often unwritten.

Of all the identified institutions *Oloiboni* stands out as the Chief conservator/ guardian of the forest. *Oloboini* is believed to possess powers, not only to impose curses and, in the severest cases, ostracize an individual from the community for abuse of the forest

and its resources; but more importantly, the ability to 'see' even metaphysically those who contravene the laid down regulations. The fact that he can 'see' without being physically present at the scene of a given outlawed activity; makes him a key figure in the forest conservation endeavour. His role as Guardian of the forest is enhanced through social norms and taboos relating human relations with nature. Whoever hunted wildlife for food, for example, was equated to an *Oltoroboni* (plural - Iltorobo), hunter-gatherers who were looked down upon by the Maasai, and were excused to hunt wildlife because they held no cattle like the Maasai. To reinforce this, the community believed any Maasai who owns livestock but still chooses to engage in hunting, his lactating cows will cease to give milk. The rules and regulations depended on the resources in question.

Herbal medicines are collected by specialists who had the knowledge of the relevant species and the specific ailments they cured. The skill is transmitted across generations through apprenticeship, often times within particular families. Both men and women practise it. Majority of the women who practise this are the traditional birth attendants. Under this category, uprooting entire plants is strictly forbidden. It is the lateral roots that are harvested and the taproot is never uprooted. After harvesting the roots the soil is returned so that the plant can continue growing. In cases where the bark of a tree is the part with the medicinal value; only a vertical strip is removed, while all-round debarking is prohibited. After debarking the exposed part is smeared with wet soil to allow quick healing process. This regulation also applies to *Illoibonok's herbs (Intasimi)*. These medicine men, who hold as a tight secret the nature of plants they use for the treatment of illness and other social maladies e.g. curses; are not allowed to uproot, or remove all leaves, or complete debarking. *Harvesting of honey* though permitted in the forest, cutting trees or using fire to harvest honey is prohibited.

Plants and trees used during *traditional rituals and ceremonies* including *Olkiteng Loolbaa, Emowuo olkiteng, and Olamal loo nkituak* are highly respected and regulated on account of their roles in these social cultural reproduction of the Maasai society. Such tree species include Podo, Ficus, Olive, and *Phoenix reclinata*. These tree species are hardly ever cut, and their usage is mainly for these rituals.

The regulations around the use of forest products as firewood and fencing materials are also spelled out. All the firewood used is from fallen deadwood and therefore nobody is allowed to cut standing trees for firewood. The same principles apply for fencing poles. Beyond forbidding felling of standing trees, sourcing of poles is also limited to particular species, in this case mostly cedar posts, which are durable and termite-resistant. For fencing of traditional homesteads, use of acacia branches (a tree found outside the forests on rangelands) is encouraged.

Water points are one other most regulated and protected forest sites. Water points are equated with human reproductive organs. They are sacred because they are means through which life is perpetuated through time and generations. Their value for livelihoods downstream and as reserves for dry-season grazing and watering is recognized and protected. Cultivation and grazing around the water points is prohibited. There are special points from which the livestock are watered.

Like all other forest's products harvesting, *timber-sawing* for whatever purposes is strictly monitored controlled the village elders or the village forest committee. Although individuals are presently using timber to meet personal/ family construction needs; constructions for community-related projects such as classrooms and administration offices takes the larger chunk of timber-harvesting from the Loita forest. Outsiders are prohibited from harvesting timber.

Grazing and cultivation are also highly regulated livelihoods activities. In the case of cultivation it is only practised close to the homesteads, while prohibited in the forested areas. Forest grazing is open to all the local community members especially as dry-season grazing reserves.

The forest is generally central to all cultural and ceremonial practices within the community. Hardly any of the main rites of passage is practised apart from the forest and or its resources. Some of these ceremonies are held in any part of the forest.

Conclusion

It is therefore imperative to create spaces for knowledge systems dialogues by encouraging the active participation of both indigenous knowledge holders, scientist, policy makers and other development actors. For indigenous peoples, Climate change threatens cultural survival, exposes them to more unfamiliar risks, disrupts indigenous knowledge systems and undermines human rights with a concomitant reduction of opportunities for livelihood diversification.

The constitution of Kenya and a number of policy documents including for example, the national land policy calls for the recognition, protection and promotion of indigenous knowledge and its incorporation in development practice. The recent COP21 decision, in Paris, France on how to address the challenge of climate change, also underscored the critical role of indigenous/ traditional knowledge systems in adapting and mitigating the negative impacts of climate change.

County government, as devolved units of decision-making and development practice in Kenya provide an excellent opportunity for enhanced dialogue, leading to formulation of the requisite policy frameworks to recognize and operationalize principles related to indigenous knowledge systems and practices. Indigenous knowledge system, is mostly unwritten and orally transmitted though collective social memory and folklore and as such is highly time sensitive, necessitating an urgent need for targeted research and documentation before the elders who are custodian of the knowledge retire. It might also be useful for the national/ County education curricula including universities to explore avenues for exposing learners to this unique knowledge platform, that forms part of our ethnic and national heritage.



For information please contact:

ILEPA KENYA

FGCK Maisha Poa Building
P.O BOX 1088 - 20500 Narok

Tel: +254 (0) 705 905 334/ +254 (0)722 300 540
info@ilepakenya.org