



# Indigenous Knowledge and Development Monitor,

april 1994

<http://www.nuffic.nl/ciran/ikdm/>

reference PRELUDE HH 12

## Indigenous (medical) knowledge of the Maasai

### I. Sindiga

Traditional pastoral systems preserve natural ecosystems through extensive ranching and rotational grazing and by using a variety of livestock. The pastoral Maasai of East Africa, for example, keep cattle, goats and sheep. These animals utilize different parts of the range's plant life. This diversity is crucial in pastoral patterns of subsistence. The aim of this article is to review the uses of indigenous plants among the pastoral Maasai, focussing particularly on traditional medicine. It is argued that Maasai ethnobotany should be studied comprehensively and should serve as a guide for rural development in areas with very delicate ecologies.

#### Vegetation in Maasai life

The Maasai of East Africa live in the southern part of the Republic of Kenya and in northern Tanzania. In this article reference is made to the Maasai of Kenya. Maasailand is part of the large semi-arid and arid area of Kenya. It has low and unreliable rainfall, and permanent sources of surface water are quite limited. This marginal land easily suffers ecological degradation once it has been subjected to intensive use by growing populations of humans and livestock. Certain types of land could disappear altogether as bush encroaches on to more and more territory.

The vegetation of Maasailand comprises a diverse range of plant communities; their variety reflects differences in rainfall and topography. The wetter areas, such as the Mau Hills, Loita Hills and the Nguruman escarpment, have indigenous forest trees. These include *Juniperus procera* (East African cedar, or Oltarakwa in the Maasai language), *Podocarpus milanjanus* (Olcani-lenkai in the Maasai language) and *Ocotea usambarensis* (East African camphor). Drier areas have species of *Olea*. Forests give way to woodland, grassland and bushland. The woodlands and bushlands have an *Acacia-Themeda* combination, *Commiphora* and *Acacia*. Perennial grasses include *Cenchrus ciliaris* and *Chloris roxburghiana*. As will be shown below, trees and shrubs have social and ritual significance in Maasai life. Grasses are known for their value as fodder for livestock. The diversity in plant species on Maasai land is matched by the many uses to which plants are put.

As herders, the Maasai know all the grasses on the range. They distinguish between those that are good for increasing milk and those that fatten livestock and improve their condition (Allan, 1965). The Maasai also know many plant species for their mystical significance and medicinal value ([see table 1](#)).

The Maasai refer to trees and shrubs collectively as *olcani* (plural *ilkee*). The term is used for fuelwood as well. (Mol, 1978:161; Jacobs, 1963:16). The term *olcani* is also used for various kinds of medicine, although it specifically refers to medicine extracted from plants.

A distinction is made between trees with thorns and trees without thorns. The first group is called 'warm trees' and the second is 'cold trees' (Mol, 1978:161). The cold trees, which are considered holy, are further divided into those that have milk and those without milk (Mol, 1978).

Trees are also used to build houses. The walls of Maasai houses are made of young saplings smeared with cow dung.

Trees and shrubs have a certain ritual significance in addition to providing shade for various social gatherings. Jacobs (1963:16), for instance, notes that only the bark and leaves of trees may be used in certain 'purification' ceremonies to avert supernatural misfortune (*naipok*).

#### Maasai traditional medicine

Herbal medicine pervaded many aspects of Maasai life in the past. According to Sankan (1971:60-61), the Maasai used herbs, bark and roots which were boiled in soup that was drunk in order to improve the

condition of the stomach and the blood. They also used drugs derived from trees and shrubs for curing ailments such as gonorrhoea, stomach infections, throat problems, pregnancy disorders, tooth problems, eye infections, children's diseases, colds, swollen legs and painful joints.

Maasai traditional medicine is practised even today. This is probably because Maasailand, just like other pastoral areas of East Africa, has remained somewhat isolated from the centres of development. Modern health care is inaccessible and unavailable.

The Maasai have used herbal medicines for millennia, and they are deeply rooted in Maasai life. The Maasai know herbs that can be used as remedies for many conditions. It is the duty of every Maasai child to learn about the medicinal value of herbs as he or she grows up (Sankan, 1971; Sindiga, 1992). Teenage boys are taught about all the grasses on the range. Traditionally boys are assigned the task of looking after small stock (goats and sheep) around the homesteads. In the process, they also pick up the knowledge of herbal medicines used in the home. Girls receive their knowledge of herbal medicines from their mothers and grandmothers, with whom they spend a lot of time.

Minor ailments\*\*1 are treated at home with herbal medications. Traditionally, herbal mixtures were used to aid digestion and/or as excitants, particularly by ilmurran (warriors) preparing for raids. For example, the herb olkiloriti (*Acacia nilotica*) was taken as a digestive, excitant, and to prevent hunger and even thirst. Maasai accounts show that olkiloriti was taken by warriors before going on raids. It was also reputed to prevent fatigue and fear (Holford-Walker, 1951:1). [Table 1](#) gives an overview of herbal medicines and drugs in use by the Maasai.

Table 1. Some herbal medicines and drugs in use by the Maasai

Maasai name of herb	Botanical name	Part used	Condition it treats	Application
Emokotan	<i>Albizzia anthelminthica</i>	branch wood; bark	worms; excitant	oral
Enchaniangashe	-	roots	excitant; digestive	oral
Endoroniki	-	roots	excitant; stimulant used by warriors	oral
Engataru or Enongomani	<i>Croton zambesicus</i>	branch wood;	excitant; digestive	oral
Engelinyei	<i>Rhoicissus eythrodes</i>	tuber	excitant	oral
Engoduai	-	berries; branch wood	excitant; medicinal; purgative	oral
Olangungui	-	tuber	excitant (warriors only)	oral
Oldimigomi	<i>Pappea cappensis</i>	wood; bark	digestive; stimulant (elders/and warriors)	oral
Olerai	<i>Acacia seyal</i>	wood; bark	stimulant; medicinal (fever, induce vomit)	oral
Oljaninyuki	<i>Embella kil imandscharia</i>	bark	purgative; excitant (warriors only)	oral
Olkiloriti	<i>Acacia nilotica</i>	bark; roots	digestive; excitant; quench thirst; prevent hunger (wounded warriors)	oral
Olkinyei	Maba?	branch wood; bark	mild excitant; digestive medicinal (for spleen)	oral
Olkirenyi	-	bark; leaves	stimulant; mild excitant; medicinal (colds, coughs, fever)	oral
Olkitolosua	<i>Myrica kilimanshuarica</i>	root wood; root bark	stimulant; excitant (warriors only)	oral
Olkonyeli	-	roots	stimulant; digestive; general tonic	oral
Olodua	<i>Maesa lanciolata</i>	roots	medicinal; excitant; stimulant;	-

			purgative	
Olokorododai	-	roots	digestive; flavour (mainly elders)	oral
Osokonoi	Cassia	bark; berries; root bark	excitant; medicinal (malaria, coughs, colds)	oral
Os Sugurtuti or Ol dinai	Cissus quadrangularis	branches	excitant	oral
Seketek (Ngaita- Kik)	-	berries	purgative; excitant	oral

Source: Holford-Walker (1951). The botanical names of some of the *Acacia* species have been updated in accordance with Bogdan and Pratt (1974) and may not appear as in the source.

Maasai women are given less food during pregnancy. In fact it is taboo for them to eat certain foods, such as fresh milk, which is said to make the foetus too big. A pregnant woman is given sour milk from which the butterfat has been skimmed. Occasionally a Maasai expectant mother is given boiled meat mixed with blood (monono), which is believed to strengthen the foetus. More medicinal herbs (in particular the digestives) and water are given to pregnant women from the 20th week to delivery (Kenya, 1988:144). The intention is to keep them slim so that they give birth to small babies that will not be difficult to deliver. The net effect of this approach, however, is that the woman suffer from post-partum anaemia. In addition, Maasai children are frequently of low birth weight.

In recent years the importance of herbal medicines in primary health care has been emphasized. Records of this information could be a basis for the use of these medicines in contemporary medical systems. Herbal medicines could provide compounds needed to develop pharmaceutical drugs. It is important to note that the growth in human and livestock populations in Maasailand is tending to reduce biodiversity and could severely affect certain plant species.

#### Maasai utilization of traditional medicine

A survey was conducted in Narroosura, in the Narok district of Kenya, in December 1991 and January 1992 (Sindiga, 1992). The purpose was to study how therapy is sought and selected in a community with plural medical systems. In Maasailand the modern health system exists side-by-side with the Maasai traditional system. Other transitional forms of medicine also exist, including treatment offered by untrained opportunists who administer pharmaceutical drugs and even give injections.

A total of 213 heads of household were interviewed. When asked about the first treatment given to sick members of their household within the week prior to the interview, 60 per cent (of 118 heads of household) said that they had either used herbs collected by their families or had consulted traditional healers. A further 10 percent had bought over-the-counter proprietary medicines. For only 31 percent was a health facility the first choice of therapy.

The interviewees used herbal medicine because they believe that herbs are efficacious and/or because a member of the family is a traditional healer. Not a single person cited distance to a health facility as the reason for using herbal medicine.

When the interviewees were asked whether their families usually use herbal medicine when a person falls ill, 78 per cent (of 210 heads of household) said that they do. Similarly, 78 per cent usually consult with traditional healers when someone gets sick. It is interesting to note that the majority of those questioned also said that members of their families usually go to a health facility. This suggests that these people use traditional medicine and health facilities simultaneously for the same episode of illness. The tendency, however, is for them to take two sets of medicine at the same time. Among the Maasai, people turn to traditional medicine because they believe that herbal medicines are efficacious and that traditional healers are able to diagnose medical conditions accurately (Sindiga, 1992:369).

The results of this survey show that traditional medicine is widely used among the Maasai. General awareness of medicinal herbs is very high. Nevertheless, the survival and development of Maasai herbal medicine will depend on whether plant biodiversity is preserved. This is now threatened by growth in human settlements. The study also shows that planning for health care services should take into account the role of the relevant indigenous medical system.

#### Discussion and conclusion

Plants are invaluable for all facets of Maasai life, such as animal fodder, medicine, housing and rituals. This is expressed clearly in Maasai ethnobotany. But not all of the indigenous knowledge possessed by the Maasai regarding the use of plants has been collected. Maasai ethnobotanical knowledge of resilient, drought-resistant grasses is needed, for example, for dealing with the pressure of livestock on the range. This could guide rural development in rangeland areas with delicate ecologies. Also, such knowledge can contribute to the identification, extraction and utilization of medicinal herbs.

Another reason for collecting and documenting Maasai ethnobotanical knowledge is that populations of humans, livestock and wildlife are increasing rapidly. The expansion of human settlements and the creation of national parks for exclusive wildlife habitation run counter to the frontier ethic of the traditional pastoral system. Overpopulation is threatening biological diversity on the range as cultivation expands and bush takes over more and more areas.

Isaac Sindiga  
Associate Professor  
Moi University  
Faculty of Forest Resources and Wildlife Management  
Department of Tourism  
P.O. Box 1125,  
Eldoret  
Kenya

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#### Endnotes

\*\*1 Major illnesses and chronic conditions are treated by 'professional' healers (ilabaak; singular olabaani).