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# VANISHING MAASAI TRADITIONS DOCUMENTED THROUGH THE FLORA

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**Abstract:** Given the pressures of the modern world, the oral knowledge and the cultural values of the Maasai are quickly disappearing. Researchers have elected to record and preserve them before they vanish. They started with the flora since plants and botanical knowledge are the foundation for many facets of Maasai culture. Extensive field research in Kenya has made it possible to document the plants of the Maasai country. This research is based on practical life experiences and traditions. In this article, examples of data collected on medicinal plants, as well as various care traditions in Maasailand will be provided. This documentation is meant to provide a truer perspective and insight into the Maasai world and preserve their legacy for present and future generations. It also stresses the necessity of protecting Maasailand's natural resources.

**Keywords:** Indigenous people, Maasai, herbal medicine, documenting oral tradition.

**Résumé :** Sous la pression du monde moderne, les connaissances orales et les valeurs culturelles des Maasai disparaissent très rapidement. C'est pourquoi ils ont décidé de les enregistrer afin de les préserver avant qu'elles ne tombent dans l'oubli. Les plantes furent choisies car elles permettent d'évoquer tous les aspects de leur culture. Une recherche de terrain exhaustive au Kenya a permis de documenter les plantes du pays Maasai. Cette recherche est basée sur l'expérience pratique et la tradition. Nous donnerons ici en exemple une partie des données recueillies, celle concernant les plantes médicinales et les traditions du care en pays Maasai. La documentation ainsi créée a pour but de fournir une perspective et un aperçu plus exacts du peuple Maasai, mais surtout de préserver cet héritage pour les générations Maasai actuelles et futures. Elle souligne de plus la nécessité de protéger les ressources naturelles de la terre Maasai.

**Mots-clés :** Peuples autochtones, Maasai, plantes médicinales, documentation tradition orale.

## INTRODUCTION

The traditional culture of the Maasai people is gradually vanishing due to the growing pressures of the modern world, which threaten their oral knowledge systems and cultural values. This fragility underscores the urgent need to protect and maintain their heritage via documentation efforts. Acknowledging the importance of safeguarding the Maasai culture, Kenny Matampash, a prominent elder of the Maasai community, instigated an initiative to document this knowledge and ensure its conservation for future generations.

Central to this initiative was the focus on plants as the primary research subject, as botanical knowledge is deeply intertwined with various aspects of Maasai's cultural heritage. Traditional plants are pivotal in their daily lives and serve various purposes, including food, medicine, veterinary care, rituals, construction, fodder, arts and crafts, and ornamental uses. Researchers attempted to provide an overview of traditional Maasai life and practices in the past by documenting various plants. Foreign scientists, botanists, and researchers have conducted valuable studies on East African flora. However, a holistic documentation of the Maasai people's botanical knowledge was not undertaken until this research.

To address this lack of documentation, the Maasai people initiated a vast field research project in Kenya in 2014. They sought to reclaim and transmit their story in a way that authentically reflected their life experiences and perspectives. Rather than allowing external voices to dominate narratives about their culture, they got involved in presenting an authentic portrayal of their heritage, portraying their traditions through their knowledge of plants and herbal medicine. The purpose of this project was to educate future generations within the community to perpetuate the Maasai oral knowledge of plants and traditions. To that end, this research aimed to document the use, symbolism, and significance of plants in Maasai people's everyday lives.

The culmination of this five-year research effort was the publication of ORETETI<sup>1</sup> in France in 2019, which is briefly presented in this study. The following sections of this publication introduce the Maasai people, provide a detailed overview of the research process, and explore the pressing need to document their oral knowledge of plants before it is lost. The methodology and contributions of the research team are highlighted, followed by a presentation of key findings, particularly regarding medicinal plants and traditional healthcare practices within Maasai society.

1. Matampash Kenny, Hubert Lucie, 2019, ORETETI, plants in the daily life of the Maasai. Foreword by N. Crawhall, chief of Section, Small Islands and Indigenous knowledge, UNESCO.

By undertaking this initiative, the Maasai community has taken an indispensable step toward preserving its rich cultural heritage while laying the foundation for future research and knowledge transfer between generations. Through this project, the Maasai people not only ensure the perpetuation of their rich traditions but also empower Maasai youth to take a critical part in preserving their culture and reappropriating their cultural identity.

## THE MAASAI

The Maasai were originally and still are nomadic pastoralists. “Maasai” indicates a speaker of the Maa language, which belongs to the Chari-Nile branch of the Nilo-Saharan language family. Maa-speaking people migrated into their current territory around the 16th century (Ehret, 1984). At the end of the 19th century, their original grazing territory encompassed almost 80 percent of Kenya and Northern Tanzania. During colonial rule, much of this land was lost to agriculture. Some Maasai groups were forcibly displaced from their homelands. They keep cattle as their main source of wealth and food (Karehed, Odhult, 1997).

The Maasai are well known to have been custodians of the wildlife in East Africa for ages. Indeed, most animal parks, reserves, and preserved ecosystems are within the Maasai territories in Kenya and Tanzania. Wild animals have co-existed with the Maasai communities since time immemorial. The Maasai have managed to maintain a balance between wildlife, their livestock, and the ecosystem. This coexistence has flourished, given the Maasais’ great knowledge of the laws of nature and the cosmos. They understand their environment and know how to respect and relate to it to create harmony.

The Maasai community is deeply rooted in tradition, strengthened, and powered by generations of cultural and spiritual initiation. These initiation ceremonies and rituals are systematically performed at different stages of a person’s life, from birth to death. Up to the present, given this solid social structure founded on initiation, the Maasai have been able to withstand outside influences, including Western modernization. For this reason, Maasai are proud to be one of the Eastern African communities that still maintain, practice, and respect their traditions.

That’s also why, despite their relocation over a hundred years ago, the Maasai still have extensive knowledge of their environment, especially the plants in their surroundings, and they ascribe use to a large percentage of the plants found.

Regretfully, times have changed, and the modern world has begun to affect the order of the Maasai culture, social fabric, and values. Given these new developments, there is a growing fear that their cultural order will eventually disappear, leading to the assimilation of the Maasai into a more urbanized culture.

## THE PROJECT

The project aimed to document the values and properties of wild plants in the daily lives of the Maasai people. This type of information has either never been documented or only minimally explored. Foreign scientists, researchers, and botanists have done a valuable job in studying the plants of East Africa (Dale, 1961; Battiscombe, 1936; Dharani, 2011; Birnie, 2011). Ethnobotanical studies have been undertaken in the Loita Hills in Maasailand (Karehed, 1997; Maundu, Berger, ole Saitabau, 2001). A French anthropologist introduced the Maasai culture to France (Peron, 2007).

The 'Oreteti initiative' offers another approach based on practical experience and tradition. We did not pretend to be experts in this realm. However, we wanted to provide a lively and challenging portrayal of the Maasai based on life experience rather than a purely academic view.

This initiative is unique because it originates from the Maasai, who tell their own stories based on their experiences and knowledge.

This document aims to provide a more accurate perspective and deep insight into the Maasai world while primarily preserving this extraordinary legacy for present and future generations.

It is indeed deliberately meant to educate the future Maasai generations. These days, young people are no longer aware of and do not recognize the plants growing within their natural surroundings, let alone their values and properties. In the old days, elders transmitted knowledge of plants *orally* to children without any recording or documentation. This oral transmission by Maasai elders to the next generation is fading away. Elders are aging, and sadly, many are passing away. With them disappears the knowledge of the great Maasai flora, wild plants, and native culture (Kigen *et al.*, 2013). Traditional education, the core of Maasai knowledge and wisdom, has been degraded by a dismissive Western-style education in English and Swahili. The Maa language is only spoken at home. Speech forms encode oral traditions. When elders die, such creative expressions become threatened (Turin, 2012). Today, the school system has completely disrupted the flow and practice of sharing traditional knowledge. This has accelerated the demise and loss of this precious knowledge.

Another serious concern is the rampant destruction of forest cover and the increasing desertification affecting the arid and semi-arid lowlands (ASALs) of Maasai land and environments. More and more species of trees and plants are disappearing quickly due to commercial exploitation, such as charcoal burning. The ecosystem has become increasingly fragile as uncontrolled sand harvesting is causing the disappearance of plants with valuable properties for people and fodder for livestock and wildlife. Trader herbalists are now plundering

and commercializing medicinal plants, and this will lead to their further destruction and disappearance. The new land tenure system, which promotes land privatization and commercialization, threatens groundwater reserves, pastures, and indigenous plants. This new land use system is changing the pastoral ecosystem entirely (Kiringe, 2005; Peron, 1993). Valuable plants are disappearing due to cultivation, urbanization, and crop and agro-business production, replacing a pastoralist and environmentally friendly ecosystem.

The Maasai people are forced to settle down. They are slowly losing what has been sustaining them in their environment. Thanks to adaptive capacities and mechanisms in their traditional order, they have evolved for centuries. Modern thinking compels them to move into another situation, and they might not have enough adaptive capacities for this new situation.

The gradual disappearance of indigenous plant species and oral transmission called for radical action: documentation and written transmission of this knowledge seemed paramount. It had to be recorded and shared widely.

We hope that this initiative will be recognized and accepted by the education system within Maasailand and will inspire further research from young Maasai scholars<sup>2</sup>.

Equally, this will lead to a deepening of this knowledge and more advocates who will protect and conserve these valuable resources and ultimately explore and document other fields of Maasai tradition to be universally shared.

This research is an invitation to join this noble initiative to revive ancient knowledge, which is under immense threat. It is also an appeal to all indigenous peoples to start documenting and recording their valuable traditional knowledge so that it can be safeguarded for generations to come and shared with the world in the spirit of the United Nations Rio de Janeiro convention.

2. After "ORETETI, plants in the daily life of the Maasai", a smaller book, beautifully illustrated, and drawn from the big *ORETETI* document has been published (2019). Called "The Little Oreteti", it describes the 17 most important plants the Maasai use in their daily life, to eat, to cure themselves and their animals, or for their rituals. It is meant for the Maasai youth and school children as a tool of transmission of an oral knowledge. In recent years, "The Little Oreteti" has been distributed to several schools in the Maasai country.

## METHODOLOGY

Kenny Matampash invited me as an herbalist and a writer<sup>3</sup>, to collaborate, document, and transcribe the oral traditions of the Maasai.

As a Maasai elder, Kenny Matampash completed all stages of traditional Maasai initiation from childhood to senior elder. Despite extensive exposure to Western culture and modernization, he feels strongly rooted in his Maasai heritage. Serving as a bridge between the modern and traditional worlds, he believes finding a balance between these two worlds is essential.

As stated above, we jointly decided to start with the flora since plants or botanical knowledge are the foundation for many facets of Maasai culture. The idea was to create a document based on life experiences rather than providing solely academic and ethnological detail and research. In other words, there would be minimal scientific description of the plants. This document would serve as a basis for information about the uses of plants in the Maasai's everyday lives. This would benefit the Maasai community and help them expand and enrich their cultural knowledge and practices.

In 2014, we conducted a two-week tour of Kenya and Maasailand to meet the community members and conduct initial interviews. Upon return, I began to research Maasai botanical studies and publications. At the Museum of Natural History in Paris, I discovered a very limited number of publications by English and German botanists and ethnobotanists dating to the end of the last century. However, the objectives of these earlier publications were not similar; they did not address the Maasai culture and only contained detailed botanical information. They nonetheless provided an excellent benchmark for early project development as reference books.

Actual field research started in August 2015 when the team welcomed two assistants:

Kone Matampash, a student in sustainable agriculture at the Eldoret University of Kenya, joined as a logistics assistant.

3. Lucie Hubert is an author, member of the 'Société des Gens de Lettres' (SGDL) in Paris, and a certified herbalist. Born and raised in Gabon (West Africa), she always felt closely connected to this continent. She received a degree in English and German at the Sorbonne University in Paris and served as French language broadcaster and journalist for Radio Nederland International for their African stations. She co-organized symposiums for notable representatives of indigenous people and well-known scientists. She has also written several books, essays, novels and a series of children's books detailing the beautiful legends of the great African queens and heroines.

Elza Kortenoever, who received a Master in History and International Relationships at the University of Amsterdam and worked as a researcher on water projects in Benin, also joined as a photographer and research assistant.

The fieldwork continued in 2015 and 2017 and covered an estimated three thousand kilometres of mostly dirt roads over difficult terrain. The search was exhaustive, taking the team to all zones and requiring special attention to recognize, touch, feel, smell, and taste the plants. Each plant was photographed, with detailed notes taken to document its uses, properties, and significance to the Maa community.

Community members, naturalists, teachers, elders, and children accompanied the team every day in the field. They all contributed extensively to the identification and designation of the specific plants and their respective properties.

During this period, the team recorded interviews with elders and children, who gave personal accounts of the important role the plants have served in their lives.

The crew also had the honour of meeting the paramount Maasai spiritual leader from the Loita Hills, Mokombo Ole Simel, a direct descendant of the Olanana family. He lives in the Naimina Enkiyo forest, the most important Indigenous Forest for the Maasai people. The team spent two hours with Mokombo, who was greatly touched by the Oreteti initiative of documenting and recording the knowledge of Maasai plants. He blessed the team and the project.

## **MEDICINAL PLANTS AND TRADITIONS OF CARE**

For centuries, as pastoralists, the Maasai people have lived a simple life deeply connected with nature. They owe their health to their long walks through the savannah and the bush that strengthen their bodies, to their simple and to their simple and modest diet: unprocessed meat, milk, and plants, and to the initiation stages that support them through life, strengthening their spirit, resilience, joyfulness, and hopefulness. This sacred connection and relationship with their environment fortify them, enabling them to adapt to adversity with courage and humour. Living such a natural life, the Maasai are using what nature generously provides, that is, plants, to cure their illnesses. These herbal medicines are very effective whether taken orally or applied externally. As a result, the word for tree, *olchani* (plural: *ilkeek*) is, in Maa language, the same word for medicine (Mol, 1978)

Traditional medical knowledge is deeply rooted and firmly embedded in the daily lives of the Maasai people. Every Maasai mother knows the bushes growing around her home where she can find herbs for her children, herself, or another sick member of the family. The most



immediate bushland or forest is a pharmacopeia of the community. Like the knowledge of edible plants, elders transmit their wisdom about medicinal plants by showing, naming, and illustrating the use of herbs to younger generations. It is a very practical and useful method of education, which starts at an early stage. Later, at the bush camps, elders continue to teach young people how to recognize the different medicinal plants around them and how to harvest, prepare, and administer these plants, and they provide guidance on dosage and the danger of overuse.

**Konina**<sup>4</sup>: It is the mother's task to send the man to the forest to fetch certain medicinal plants. She will say for example: 'go to this tree, remove the roots and bring them back to me'. She will boil the roots and give the drink to the children or anybody in the house who may need it.

In addition to this homeschooling, there are well-known healers in every region. These healers have extensive plant knowledge and are called upon to administer medicinal herbs. Maasai people believe physical illness is sometimes rooted in mental disorders. When an illness that is perceived to be of supernatural origin occurs, an oloiboni or a spiritual healer is consulted.

Nowadays, more and more Maasai young people attend university to study botany and become herbalists or ethnobotanists. These skills and knowledge passed on orally from generation to generation have helped develop a very detailed pharmacopeia among the Maasai.

**Sironka Ole Pere**<sup>5</sup>: I am a pastoralist and I keep livestock. I am also a healer. I have a lot of knowledge about plants from the forest and I heal my people with these plants. The major disease that I cure is skin cancer. My father shared his knowledge with me. I learned when I was very young; I would accompany my father when he was collecting plants. As he aged, he became blind and would send me into the forest to collect the plants needed. My brother and I have also had skin cancer and we were cured by my father. Since we have practical examples in our family we are confident it will work for other people. One time I wanted to stop practicing, but something in me drove me to continue, not to give up. I heard a voice in me telling me: 'Go on!' That drive in me is strengthened every time people come to me with their sufferings. When I look at them and they need help, I know I can help them; I have the desire to do it. I have kept records of the patients that I have healed so that there is a proof of my work. I will leave this document to my children when I pass away and share this detailed knowledge with them. In the meantime, they know the herbs that I use, observe what I do and know now the secrets to healing skin cancer.

4. Konina Taraya has five children and many grandchildren. She is the coordinator of a Maasai women's network that lobbies strongly against retrograde Maasai cultural practices that violate women's rights especially FGM.

5. Ole Pere Sironkaala Orwuasoi is a traditional healer living in Olkoroi in the Narok County. He mainly cures skin affections and skin cancers.

**Salaon<sup>6</sup>:** I was born in the Mau forest and I work for the council of Narok. I have not been to school, but when I was young my father taught me all about plants. I loved to spend time with elderly people who shared with elderly people who shared their knowledge about plants with me. I was a shepherd in the forest, looking after cows and sheep and I also learned by observing plants. I was always chosen by the elders to go into the forest to search for special plants needed for the Maasai rituals because I could recognize them easily. Although all Maasai children know about nature and plants, there are some who have a special interest in nature and are gifted. I am such a person. In every village, there are elders and women known to make special concoctions to treat diseases that people cannot treat themselves. These persons, called Olabaani or Enkabaani accompany the patient till he feels better.

**David Melay Ritei<sup>7</sup>:** I am a naturalist. I did advanced studies of plants among other subjects, at university. I studied the medicinal plants of East Africa. I came to realize the importance of local traditions, how roots, barks, potions are used to cure diseases. Our people are still using them today and know how to cure disease with plants. It is important to document these medicinal plants. Some people take nature for granted but it has a great and powerful value.

## MAIN DISEASES IN MAASAILAND

In most traditional Maasai communities, plants are used mainly as purgatives and emetics to cleanse the body and blood, especially the digestive system.

This section focuses on the treatment of common diseases such as parasitic diseases, digestive system and stomach disorders, urinary tract infections and sexually transmitted diseases (STDs), circulatory and respiratory disorders, teeth problems, eye infections, aches and pains, malaria, physical injuries, skin problems, and infertility. Psychic troubles like depression and other 'spiritual diseases' are also included among these illnesses.

### PARASITIC DISEASES

In Maasailand, parasitic diseases are common, especially those transmitted by worms. Some are associated with livestock products like raw meat and milk. Some different roots and seeds help remove worms from the body. These plants are boiled and sometimes mixed with bone and meat soup<sup>8</sup>.

6. Ole Salaon Saning'o aka nkurroto grew up as a herder in the Narok County. He is a healer and an expert in traditional ecological systems.

7. David Melay Ritei is a Maasai botanist in Amboseli.

8. The main plants used against worms are: Emukutan (roots and bark), Iseketek seeds, and bark from the Oseketei tree.

### ***DIGESTIVE SYSTEM DISORDERS OR STOMACH UPSETS***

Various plants and herbal soups are used to treat digestive disorders. Maasai often say, "If the belly is healthy, the rest of the body will be as well."

Plant and meat soups are important in the Maasai diet. To make a herb and meat soup, bark and roots are gathered in the bush, cleaned, put in cold water, and boiled for some time on the fire. Then they are discarded. Selected pieces from a freshly slaughtered goat, sheep, or cow are boiled in another pot of water. This last soup takes a long time to cook to get the marrow off the bone, which adds a lot of nutrition to the mixture. When the soup is ready, the meat and bones are removed, and a bit of animal fat is added to the liquid, especially when the meat is only steak. This meat bouillon is then mixed thoroughly with a stick called *olkipere*, until the animal fat is completely emulsified.

The herbal decoction and the meat soup are then mixed. The mixture is left to cool and later served in cups or small pots. This is called *imotori*.

These mixtures of meat, bone soup, and plant decoctions are very nutritious and have high medicinal properties. They have a preventive as well as a curative effect. In fact, these bitter plant mixtures fortify the whole digestive system. They help liver function, blood cleansing (especially cholesterol elimination), and detoxify. They also cleanse and activate the overall metabolism.

Some specific plants are not used in soups but help relieve digestive system disorders. They can be taken raw, infusion, or decoction.<sup>9</sup>

### ***URINARY TRACT INFECTIONS AND SEXUALLY TRANSMITTED DISEASES***

Urinary tract infections and sexually transmitted diseases (STDs) are the most prevalent infectious diseases in Maasailand, due to the cultural practice of polygamy, a traditional norm within the Maa community, as well as the freedom of sexual relationships among age groups. Protective measures, for example, condoms, are not advertised amongst the rural population. If the population somehow becomes aware, people remain reluctant to use them.

As a recently introduced disease, AIDS now poses a real danger to the Maa community. There is no existing or known traditional herbal medicine to prevent or cure AIDS, which forces

9. Ematasia, Osanankurruri, Entulelei, Osuguroi, Oremi, Osikawai (Esikawai), Oiti, Oltepesi, Olmagirigiranie, Lembae (Lebaye) nabo, Olerai, Olosida (roots eaten raw), Oloilelei, Oldepe, Olkonyil, Oltiyani, Osokonoi, Oleparr-munyo (Oleparmunyo), Entipilikwua-enkop.

the necessity for protection. Otherwise, HIV drugs are available for free in all health centres around the country<sup>10</sup>.

**Koiloiken**<sup>11</sup>: To treat gonorrhoea, I give the patient a mixture of Olkokola roots and fat of a sheep. With Oltepesi, I have treated many people who had a blocked urinary tract. I boil the bark and give it to the patient while he is putting his feet in a bucket of cold water. A man with erectile dysfunction responds well to a mixture of Oremi, Osuguroi, Olkiloriti, Oltimigomi, Olenaraan and some other herbs boiled together with the fat of a sheep or a goat. The man must drink one cup of this red-coloured decoction before going to bed.

#### ***RESPIRATORY SYSTEM DISEASES***

Respiratory system diseases are familiar, especially among children during the cold and rainy seasons. Many aromatic plants are used to treat colds, coughs, and pneumonia<sup>12</sup>.

#### ***CIRCULATORY SYSTEM DISORDERS***

Even though the Maasai eat a lot of meat and animal fat, they tend to stay slim. Studies have shown that they do not suffer from cholesterol or heart problems<sup>13</sup>. Of course, as pastoralists, they walk extensively, which contributes to a strong heart and overall health. However, the bark and root decoctions drunk with herbs and meat soups particularly strengthen overall health and well-being. Their herbal soups help prevent atherosclerosis and support a healthy circulatory system if they consume plenty of milk and fatty meat. Maasai do not as well suffer from anaemia because of the high nutrient content of these soups.

#### ***EYE DISEASES***

Eye infections, such as trachoma, predominantly affect children because of the numerous flies attracted by milk and cow dung<sup>14</sup>.

10. Plants used to treat urinary tract infections and STDs are: Olkokola, Olkiloriti, Oremi, Olkonyil, Oleparrmunyo, Olmakutukut, Oldepe, Enkamai, Oltepesi, Olkigirri, Olmaroroi.

11. Koloiken Mereru Sapur is a well-known Maasai herbalist specialized in children's herbal medicine.

12. Plants for respiratory problems : Osokonoi (bark) and Osinoni (leaves). Other plants are: Olmagirigiranie, Empere epapa, Oleturot, Oremi, Oleparrmunyo, Olngoswa, Enchanipus, Oloiborbenek, Oldepe, Oloisuki.

13. For example a study lead in 2012 on Maasai health, by Dirk Lund Christensen, an associate professor at the University of Copenhagen's Department of International Health, Immunology and Microbiology. <http://science-nordic.com/maasai-keep-healthy-despite-high-fat-diet>

14. Plants to treat eye diseases are: Entiagaranam, Olgumi.

## **FEVERS AND MALARIA**

Due to malaria, Maasai suffer a high rate of fever. To prevent mosquitoes (and other biting insects, such as bed bugs, flies, tsetse flies, or ticks), Maasai use fragrant leaves and twigs of plants. Burning these leaves in a fire in the middle of the house produces smoke that repels the insects. They also make mattresses and mats from fresh leaves of the same plants, which have a nice scent and act as insect repellent.

Although malarial treatments are often available at health centres, the traditional use of herbs is widespread. Treatment and cures mostly involve the ingestion of a decoction of purgative plants. Maasai believe that when you vomit the bile, it helps cure the disease<sup>15</sup>.

## **ACHES AND PAINS**

Aches (painful joints, backache, rheumatic pain and headache, toothaches, et cetera) are treated with plants that effectively relieve pain. Some of these plants are administered orally, through chewing, or applied topically and rubbed on the skin. They can also be warmed up and placed on the affected area<sup>16</sup>.

## **WOUNDS AND SKIN PROBLEMS**

Wounds are treated with specific herbs, mainly applied externally to the skin or by steaming the affected area. In this case, the steam of boiled herbs cleans the wounds. The corrosive juice of some plants, like the Sodom apple, helps extract thorns and stops the resultant bleeding<sup>17</sup>.

15. Some plants to treat (malaria) fevers: Ematasia, Oremi, Oldepe, Olmakutukut, Osokonoi, Empalua, Oloilalei, Oloiren, Osuguroi, Emukutan, Olingoswa, Oltiyani, and Oiti.

16. The most common plant to treat aches and pains is Osokonoi. Other plants are: Olingoswa (Olingosua), Olamuriaki, Olkirenyi, Olgilai, Olerobat, Olmakutukut, Olkonyil, Olkigirri, Olkinyie, Olmagirigiriani, Osanankururi, Osuguroi, Oleparrmunyo, and Olmaroroi.

17. Plants for the skin and wounds are: Osuguroi, Entulelei, Olaimurunyi, Olkiloriti, Olingoswa, Olailupai (Olchilichili), Esikawai (Esikardai), Olpaleki, Olerobat, Empere epapa, Osinoni, Entemelua, Oleturot, Oloilalei, and Olorrondo (Olorrodo).

## **TOOTHACHE AND MOUTH HYGIENE**

Maasai are very concerned with dental and mouth hygiene, and given their healthy diet, they generally have very good teeth<sup>18</sup>. They use twigs from specific trees as toothbrushes. They chew on one end of the twig until it resembles a brush. The brush can be used for a longer period if moistened before use. Due to their antiseptic properties, some of these twigs have medicinal value<sup>19</sup>: Some plants produce gums that have analgesic properties and can relieve toothache, such as esaate from the Olingoswa tree.

The recent use of sugar, especially in tea, is having an increasingly deleterious effect on the dental hygiene of the Maasai population.

## **WOMEN, PREGNANCY, AND INFANT CARE**

Maasai women are very knowledgeable about the plant remedies needed to support their lifetime healthcare, including menstrual pains, pregnancy, and delivery.

### **MENSTRUATIONS**

**Phyllis**<sup>20</sup>: When my daughter had her first menstruation, I taught her how to use the pads. I told her: "Now you will have your period monthly, you are a woman, so never go near men.

This is the method used today. But as to traditional ways:

**Konina**: In my youth, there were no pads, so we used long pieces of red cloth to protect ourselves. We tied them around our waist and we would then wash them.

**Phyllis**: You suffer alone and work. You do not talk about it. Not unless it is severe, then you can sleep.

**Konina**: You do not even want to reveal that you are menstruating. The very first

18. Doctor Weston Price visited Africa in 1935. He studied the native diet of cattle-herding ethnic groups. Travelling through Maasailand, he reported that the Maasai diet then consisted largely of milk, blood and meat, sometimes supplemented with small amounts of grains, fruits and vegetables. Rich in animal fats, this diet provided large amounts of the fat-soluble vitamins he discovered to be so necessary for proper development of the physical body, freedom from disease as well as total lack of caries of the people (Price, Weston A, DDS, Nutrition and Physical Degeneration, The Price-Pottenger Nutrition Foundation, San Diego, CA).

19. Oremit, Osokonoi, and Oloisuki.

20. Phyllis Nadupoi Matampash is the wife of Kenny Matampash. She is a teacher and the leader of the Maasai Kajiado's Women's Diary Cooperative.

time her daughter is menstruating a mother will give her guidance. Otherwise, there will be no further discussion the rest of her life. And only when the pain is severe, would she be given Olkokola bark boiled with water, a bit of milk and fat.

## **PREGNANCY**

Traditionally, Maasai women are given less food during pregnancy. The goal is to give birth to a small baby and ease off delivery. For the same reason, 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 will only drink sour milk skimmed of butterfat. Her diet will include boiled meat, which is believed to provide her strength and her child. She is encouraged to drink more water and take digestive herbs from the fifth month until delivery to keep slim. As a result, Maasai children have frequent low birth weight, whilst women will regularly suffer from anemia after delivery.

**Phyllis:** Traditionally we ate plants to induce vomiting when we were pregnant, such as Olamuriaki or Olngoswa. So that the baby would not grow too big and come out of the womb easily. Some women still believe and follow this custom today. The problem is that they become anaemic. So nowadays, in the hospitals, they learn to eat properly, have a balanced diet and the tradition is slowly dying out.

**Konina:** Women who are expecting a baby do not eat food at the end of their pregnancy, but only fruits of the forest and especially Lamuriak, so that they will give birth to smaller babies.

**Nooltuka**<sup>21</sup>: I was married very young and became pregnant right away. I have lived a pastoral life, rearing nine children. Here, in the Loita Hills, pregnant women drink herbal teas. Olamuriaki helps them to vomit during pregnancy to prevent bile accumulation. They feel better after vomiting and they can then eat more food.

## **DELIVERY**

In Maasailand, women mostly deliver at home and certainly in remote areas. Plants also play a big role during delivery in reducing labor pains and to clean the afterbirth.

**Nooltuka:** Women give birth at home. Neighbours, women of the family and sometimes a midwife come to assist during delivery. Olamuriaki root lessens the labour pains and provides strength during delivery. The bark or the root is scratched and mixed with hot fat. Some other herbs like Olkiloriti and Olngongwenyi are effective for cleaning stomach or afterbirth.

21. Nooltuka, a mother and a grandmother. She is the wife of Charles Saitabau.

**Konina:** To relieve pain, the woman who is delivering is given donkey or elephant dung, boiled in water and strained. She will then vomit, which helps her in pushing off the baby. Even the placenta will come out more easily that way. Since these animals are herbivorous, their dung has a high plant composition.

**Koloiken:** I massage a woman when her foetus is abnormally positioned. I can massage the belly of the mother so that the umbilical cord is freed when it is around the neck of the foetus. After the delivery, when the placenta has difficulty to come out, I give her Ositeti roots boiled in water. Eluai, Oiti and Olmairongiro are also plants that I give to a woman to relieve the pain during delivery and remove the placenta afterwards. These plants help to heal the womb as well.

#### **NEWBORNS AND YOUNG CHILDREN**

Plants are given to babies straight after birth to strengthen them or to correct abnormalities or illnesses, such as anemia.

**Nooltuka:** A newborn baby is fed goat fat to strengthen its stomach. The mother dilutes this fat with a decoction of plants like Entaretoi boiled in water and then cooled down. As a child grows up, mothers boil Olamai, Olmisigiyoioi and Olesesiai roots with cow milk. These plants dilute the milk, making it more digestible. These herbal teas make our children strong and healthy. You see them run around outside without many clothes even when it is cold and raining.

**Phyllis:** A new born baby is given some soot of pans dissolved in the fat of a goat to soften its stomach so that the first bowel movement passes easily. The root of Lemuateni is also used, cooked to charcoal, cooled down, crushed to powder form and put in the fat of a goat. It can be given to a baby up to three months of age. This mixture is preserved in an enclosed and clean horn of a cow. Every woman who comes to see the baby says: 'bring the horn!' She takes a bit of fat on her finger while she holds the horn under her knee and rubs it on the baby's lip. It is said to protect and strengthen the stomach of the small child.

#### **PSYCHIC DISEASES**

As mentioned, Maasai believe that physical illnesses are sometimes of a psychic or mental nature. Mind, body, and soul must be healed. Healers are consulted, and rituals with elders are held with special plants. Other plants are reserved for cases of depression and mental illness.

**Sironka Ole Pere:** I am not only healing the cancer. I am also healing the mind of the patient. So that he has the faith in his mind and in his soul that whatever the process, he is going to heal.



**Salaon:** Somebody who demonstrates recklessness and a disturbed relationship with his family and those around him is sick. The person is called to sit down on a stool in the middle of a kraal<sup>22</sup> and elders gather around him. They bless him, using plants like Enkaiteteyiai or Oseki and they shout: 'Whatever happens to you, it will go away'.

**Koloiken:** When a child is depressed, I squeeze the fontanel, this soft and very important part on its head. I massage two lines from his forehead till the back of his head and from one ear to the other one. The head is divided in four parts and then I massage all these parts. Many young patients responded well to this treatment. In case of the depression of an adult, I shave the head of the person and make some cuts in the skin. I then squeeze the juice of Entulele on the cuts. The body will absorb the juice and the person will get better.

### **SPIRITUAL DISEASES**

Sometimes, an illness is perceived to be of a supernatural origin. Maasai believe they can be cursed with bad spells. Groups of elders hold rituals to cleanse the victim and remove the curse. Elders always carry Enkaiteteyiai or green grasses on these occasions. A healer specialized in treating these ailments or *oloiboni* can be consulted. The faith of the patient in his recovery is critical to be cured. In the same way, believing in the protection of EnkAi<sup>23</sup>, calling upon Him and leading a virtuous life will protect the person from spells and diseases. Rituals of protection also exist.

**Salaon:** A person may be cursed. Elderly people will then gather around him and say for example: 'Your father who is dead has committed a murder and did not compensate for that crime. That crime continues to the other generations'. To cure that, elders from the father's age group of this man are called upon to curse away the evil spirits. They organize a special ritual and at the end, they say to the man: 'Your father was a murderer, but you now are free'. There are several ways of curing somebody. Even with touch: people come and touch you and they talk and talk, and you heal.

**Koloiken:** You can cure people who have been cursed. You see this olkidong<sup>24</sup> (he wears it around his neck and pulls it out from under his shuka), you can tie a knot on the leather strap of the olkidong; you call the name of the cursed person and spit on it. He will be delivered.

22. Kraal: Maasai live inside circular kraals. These kraals are also enclosure for cattle or other livestock. Each kraal has a few homes.

23. EnkAi: the God of the Maasai, who gives life to all beings, men, animals, plants and the whole of nature. It is a daily presence, which is deeply felt.

24. An olkidong is a snuff and tobacco container worn by elders.

The curse will disappear. Only elders have the power to dispel a curse. It can be difficult to cure somebody who is very ill or dying.

**Sironka Ole Pere:** Yes, people can get diseases from curses placed on them. But people can be delivered and are healed by believing that they are going to be cured. If you reject the spell, you can be cured. In Maasailand, there is this belief that if you have done something bad to somebody intentionally it reverts to you. If somebody with bad intentions -somebody who is jealous for example or who envies you-, wants to destroy you, but your conscience is clean, you won't be harmed.

If you are an honest person, there is a shield that protects you. This shield that protects you from evil is EnkAi. There are some rituals of protection, but it is the spirit of EnkAi that protects the patient. The Spirit protects me as well, and I feel very strong because I am rooted and I am connected with nature. That gives me strength.

If a young man has done something wrong for example, he can start to behave abnormally. Elders are then called upon. They say: 'He is acting like that because he made a mistake, he has violated the cultural norms and he needs to be cleansed'. They make a ritual, they bless the person, spit on him and they tell him: 'Wake up, you are free now!' They can also sacrifice a spotless ram or bull. There are stages and ceremonies for cleansing bad omens.

**Iloibonok** (singular: *Oloiboni*) are ritual and spiritual leaders of the Maasai society. Their authority is based on their mystical and healing powers. They receive their spiritual strength from EnkAi. Their role is multiple: they spiritually heal people, officiate and direct ceremonies and sacrifices, and advise elders on the spiritual aspects of community matters. They are also the ones -with help from the elders- who name the successive age-sets<sup>25</sup>, and open and close the various ceremonies of age-set transitions (Maundu *et al.*, 2001).

The main function of *Oloiboni* is to connect man with EnkAi. Some *Iloibonok* are thus prophets or shamans who 'read' the intentions of EnkAi through divination. They are consulted whenever misfortune arises, in case of failure of rains or disease epidemics. They are also healers, deeply versed in the medicinal properties of the plants that grow in their environment.

25. Age-set: The system of age-set is the basic Maasai political and social structure. An age-set is a permanent grouping of Maasai being initiated into adult life during the same period, and lasting throughout the life of its members. This system of age-set only applies to men.

The post of *Oloiboni* is exclusively inherited from the *Inkidongi* clan<sup>26</sup>. Lately, however, many imposters, driven by the need for money-making opportunities, have given fake healings. They are not true descendants of the Inkidongi clan and, therefore, do not possess any power.

The most powerful *Oloiboni* is Mokombo ole Simel, who is the direct heir of the great Maasai spiritual healers and prophets Mbatiany, Lenana, and Senteu<sup>27</sup>.

Mokombo lives in the Loita Hills, on the edge of the Naimina Enkiyio forest, or *the Forest of the Lost Child*<sup>28</sup>. This forest is a unique and rich highland ecosystem with a large biodiversity of trees, animals, and bird species. It is one of the remaining indigenous forests of Kenya and has great cultural and spiritual value to the Maasai.

In this forest, *lloibonok* have always performed spiritual rituals to communicate with EnkAi using plants, which they say have souls and are alive. The Loita forest is, therefore, considered a living cathedral. Mokombo is responsible for guarding it against adulteration from enemies and others who want to usurp its stewardship from the Loita Maasai.

Mokombo is the protector of the forest and draws his spiritual powers from it. According to him, the connection between EnkAi and mankind, between the sky and the earth, is especially strong in Naimina Enkiyio. That's where he prays in communion with the Creator and makes his offerings to thank Him. Most rituals of the Maasai community happen in the forest, which is also a big reservoir of medicinal plants (Kimaren, 2010).

**Mokombo:** The wisdom I share with people who come to me is a healing wisdom. Some people go to health centres for help but are not healed. However when they come to me, only by giving them wisdom, they are relieved and become healthy. I am a wisdom and spiritual healer. Maasai, non-Maasai, all people come to me without discrimination and all believe my wisdom and spiritual words. I receive this wisdom and spiritual inspiration from Naimina Enkiyio forest. In this forest

26. Clan: Among the Maasai, there were originally two clans: Odomongi, the red cow clan and Orokkitem, the black cow clan. These are subdivided into sub clans: for example, Ilmokesen, Ilmolelian, Iltaaroser and Ilukuma, are sub clans of the Odomongi clan, whilst Ilaitayio, Ilaiser are sub clans of the Orokkitem clan. These sub clans are further divided into smaller sub clans. Ikidongi is a sub clan of Ilaiser. All these clans and sub clans are distinguished by their cattle brands and earmarks (Waller, 1993).

27. Mbatiany, Lenana and Senteu: Mbatiany was the greatest of the Maasai leader and *Oloiboni* at the end of the 19th century, Lenana and Senteu were his two sons.

28. The name *Forest of the Lost Child* is based on a Maasai legend. Young girls decided to walk in the forest to pick some wild berries, ilamaa (berries of the Olamai shrub), for their mother. They were looking after cows. After having collected some of them, the bigger girls cheated the younger ones, saying: 'Let us close our eyes and see who can pick the riper berries for our mothers'. So the younger girls closed their eyes. The older girls did not close their eyes and picked all the berries. After a while there were no ripe berries left and the older girls said: 'Let's open our eyes and walk back'. A small girl after walking a distance told herself: 'No, I cannot go to my mother without berries, I have to go back!' So she went back to pick ilamaa but she never turned again. Maasai warriors looked for her but she was never found. She got lost forever.

there are special shrine points where I am connected to the cosmos. I always transmit truthfully what I receive there.

## WESTERN MEDICINE VERSUS TRADITIONAL MEDICINE

Maasai traditionally used herbal medicine to cure illnesses long before modern healthcare. Modern clinics have been established here and there in Maasailand, providing medical health services. Where unavailable in the most remote parts of Maasailand, Maasai traditional herbal medicine remains very much alive and popular (Kigen *et al.*, 2013). In case of sickness, Maasai people tend to be treated at home initially, using traditional medicine. If sickness persists or the patient is in critical condition, Western medication is sought in the few locally available clinics and dispensaries. The older generation still believes that traditional medicines are more effective than modern medicines, especially in simple illnesses<sup>29</sup> (Kiringe, 2006).

**Salaon:** I have never taken any Western medicine. When I am sick, I go to the forest and pick the plants needed to cure myself. Most Maasai use plant medicine to cure themselves. If these remedies are not sufficient they will then go to the clinics.

**Sironka Ole Pere:** I am not a medical doctor. I am a healer. I have no diagnostic medical tools or laboratory. I do know however the disease that the patient has contracted. I have no modern medicine, I use plants. There are several plants that I use for several stages of skin cancer. When the wound is deep, I use different plants than I would use with a newer wound. Many patients have gone to modern hospitals. They have had extensive skin removal and surgery. They then came to me and I have cured them. The majority of the people of this region (Narok and Mau) do not use Western medicine, unless the plant remedies are not successful.

29. In fact, the World Health Organization (WHO 2002) attests: "Traditional medicine owes its popularity among rural communities of the world since it is readily accessible, affordable and, more importantly, it is an integral part of their traditional and cultural beliefs and practices." According to the WHO, up to 90% of the population in developing countries rely on the use of medicinal plants to help meet their primary health care needs. In Kenya, traditional medicine from medicinal plants has still continued to play a major role in Primary Health Care (PHC). More than 70% of the Kenyan population relies on traditional medicine as its primary source of health care, while more than 90% use medicinal plants at one time or another. For many local communities in Kenya, traditional medicine is less expensive, more locally available, and more culturally accepted than modern conventional medicine. More than 1200 plants are described as medicinal plants from a flora of approximately 10,000 members in Kenya.

**Charles Saitabau**<sup>30</sup>: Our local plants are our valuable traditional medicines with proven efficacy and with negligible side effects. Hence traditional medicine should be supported and enhanced and continue to be used as a complementary medicine. Conventional medicine is very expensive. So when local people become sick in their villages, the most immediate cure they look for is the herbal local medicine. Since it is inexpensive and accessible, this herbal medicine should be promoted to remain the prevalent healthcare system in our villages.

## THREATS AND CALL FOR AWARENESS AND CONSERVATION OF MEDICINAL PLANTS

Medicinal plants and the traditional knowledge surrounding their uses face significant threats to their survival. Finding solutions to protect and preserve these valuable resources is critically important. Rapid changes in traditional lifestyles and cultural practices pose a threat to the preservation of herbal medical knowledge. Threats are numerous and varied, including an emphasis on new lifestyle diets, the appearance of new diseases, the adoption of formal education, the spread of religion, and a reliance on modern medical care.

Traditional lifestyles are still very common in the remote areas of Maasailand: people live a simple life that is deeply connected to nature. In urban areas, however, the younger generations have adopted modern diets with high fat and sugar content, which lack nutritious value. New illnesses such as AIDS, diabetes, and alcoholism are on the rise, and the Maasai have yet to develop herbal remedies that address them. These diseases create a growing demand for modern medicine and treatments. Moreover, modern education at the university level promotes the study of scientific medicine to diagnose, treat, and prevent disease. Ancient traditional indigenous knowledge is not taught but rather disdained.

**Salaon**: People were able to manage their illnesses before the arrival and spread of newer diseases. They try to use herbal medicine to cure these new diseases but are mostly unsuccessful and then as a result go to the hospital. They have also changed their diet regimes and are contracting new diseases because of these changes and weakened immune systems. In the past, meat, milk and soups with herbal medicine were the primary foods. You would use herbals soups when sick, as they act curative and also preventive. Now we become ill as a result of the food we consume, which contains pesticides and high sugar content. Maasai did not have a word for tea in their vocabulary. Today the common drink in the Maasai home is black tea with plenty of sugar. It is a custom introduced years ago by the British. We would only consume herbal 'teas' in the past.

30. Charles Ole Saitabau, born in Narok County is a well-known Maasai ethnobotanist. He initiated a study of local plant uses with funding from Unesco, which culminated in the publication of the 'Ethnobotany of the Loita Maasai' in 2001.

Numerous evangelical churches are spreading all around Maasailand. These churches profess Christian doctrine as the answer to everything. They disrespect the Maasai traditional knowledge and encourage the Maasai people to abandon their traditions. In order to practice as good Christians, the Maasai are urged to denounce traditional practices. They ignore that the Maasai already had a unique God, EnkAi, and a strong spirituality. They consider traditional and medicinal plant customs outdated.

An important mention should be made about the Roman Catholic Church, which, since its introduction to Maasailand, has respected the culture and norms of the Maasai community and has acculturated its knowledge.

**Konina:** Religion is changing the mindset of people and creating fear in the community. It completely hates our traditions. Evangelical churches say that what we do is sinful and, as a result, people have changed their ways. Religion teaches new ways and everybody is confused. People feel like outsiders and do not belong there, or here. They are getting lost because of religion. When we perform our ceremonies, Maasai who have entered the church say: 'Do not do that, it is satanic, God does not like this...' Our traditional knowledge of plants is also despised.

**Sironka Ole Pere:** The area next to my home (Narok) is one of the last places with an Oloiren forest. Oloiren trees are considered sacred by the Maasai and nobody is allowed to cut them down. The elders want to preserve this forest as a shrine to perform their celebrations. The shrine is though much less used since the church teachings have been eroding the traditional beliefs.

The loss of medicinal plant knowledge and biodiversity would severely impact the Maasai community. Therefore, a dedicated conservation plan is urgently needed. This plan should include a sustainable approach to supporting diversity and the preservation of this vast natural richness. The participation of the local people must be considered. This should actively lead to developing principles and objectives, including conservation measures of their traditional flora. This strategy should also ensure that resource harvesting, agricultural development, range degradation due to overstocking, and land degradation safeguard these valuable plant resources.

Other important factors call for the conservation of this rich Maasai medicinal herbal knowledge. Documenting this ancient oral plant knowledge is of paramount importance, particularly at a time when modern Western medicine is showing not only its strengths but also its limitations. Modern medicine began about a hundred years ago, while Maasai traditional medicine, like many other traditional medicines around the world, has existed for millennia.

Scientific and modern medicine has witnessed groundbreaking accomplishments: the discovery of pathogenic agents, such as viruses, bacteria, fungi, et cetera. The need for vitamins, clean air, and so forth was revealed. Diagnoses have been sharpened thanks to giant progress made in physiology, histology, biochemistry, cellular and molecular biology, immunology, genetics, and so on. Modern medicine also discovered antibiotics, and that fact has saved numerous lives. Antibiotics are indeed one of the greatest successes of scientific medicine. It remains important, especially in urgent, life-threatening situations demanding state-of-the-art technology.

The chemical approach of this modern Western medicine has, however, proved of late to have strong negative repercussions (Milbert et Hubert, 2019: 47-51). Scientists thought they could cure sicknesses with molecules derived from plants or chemical synthesis that could be easily measured and precisely administered to treat special symptoms. These drugs have been considered progressive because of their accuracy and precision of dosage. It is easier to use than the plants as a whole and is quantifiable. The problem is that the active ingredients extracted from plants have a brutal effect on the body, often resulting in adverse effects, provoking long-term iatrogenic disorders or drug-induced changes, which are sometimes deadly<sup>31</sup>. Adverse drug reactions and illnesses caused by medical treatments are an increasingly acute and ongoing issue. This apparently enticing theory did not consider that one can only cure symptoms and that an organism is very complex and cannot be reduced to certain aspects. In addition, modern medicine only considers the physiology of the patient and does not consider his soul and his spirit. It usually considers disease as a clinical entity that can be diagnosed and treated while ignoring the socio-cultural context. It is a treatment using sophisticated chemical and medical tools, but which forgets the humanity of the patient. A high degree of practice and specialization among Western-educated doctors do not yet include or allow for a holistic approach to health.

Moreover, in scientific medicine, nature offers a broader range of 'raw materials' (for example, plants) from which active ingredients can be aggressively isolated. The rest of the medicinal plant is discarded without taking into account its other healing capacities. As a matter of fact, medicinal plants always serve in a multifaceted fashion. Western pharmaceutical laboratories are acting as predators, gathering enormous amounts of plants yet producing minuscule quantities of pure molecules used for medicine. The pharmaceutical industry has also caused injurious harm to numerous indigenous communities in product prospecting and harvesting. Their harmful practices and policies, such as the lack of dealing with medicinal and toxic waste, are impacting the growing ecological issues globally.

31. WHO: the unsuspected harmful reactions to drugs, also called adverse effects are one of the most important cause of mortality in numerous countries: In a rapport of 2003, Joan E. Gadsby wrote that 33% of the diseases in the USA are brought about by a medical treatment or a iatrogenic doctor.

In contrast, Maasai medicine (and other traditional medicines around the world) is based on a comprehensive and tailored approach to the patient's requirements in its three dimensions: mind, body, and soul. It recognizes illnesses and offers diagnoses and treatments that patients understand because it considers their lifestyles, social relationships, and emotional states. It is a human medicine, which not only addresses the illness but also the holistic needs of the suffering person. The patient is respected as a person in his/her connection and relationship to the visible and invisible world. Maasai medicine is thus respectful of human beings, but also of plants: these are considered as living beings having souls, which are going to give the best of themselves to relieve people. A Maasai healer himself is constantly linked with EnkAi. EnkAi is guiding him in his research of medical plants, in the preparation of the plant's concoctions, and in the treatment of the patient with these concoctions. He is curing the body, mind, and soul of his patient, and in this process, faith plays a great role. Faith in EnkAi, in the power of plants as gifts of nature, and faith of the patient in the patient in himself and EnkAi.

**Salaon:** When I go to the forest, I have full faith that I will find the medicinal plants needed to cure the specific disease of the person. I am convinced that the plants that I will find will definitely provide the necessary cure. I have the full conviction that what ever Nature will give me it will completely heal the patient. Apart from the knowledge I received from elders, I developed a strong intuition: I have the intuitive knowledge about the necessary mixtures to prepare. I know the quantity of bitter herbs that I will be able to use without causing overdose or harm. I also know the amount of mild herbs I can use for any particular purpose.

**Sironka Ole Pere:** It is not only my knowledge that gives me the power to do what I do; it is the power of the Spirit. The power of EnkAi is always guiding me. When I go into the forest, I go alone, but actually I am not alone because the Spirit of the plants is the Spirit of EnkAi. When I come back to treat my patient I pray EnkAi. I look upon him so that he believes he is going to be healed from any disease. I do not heal or provide cures for money, but only to help others. I do not pretend that I can cure everything. If I cannot, I tell the person. There is a connection between the plants and me. It is a spiritual connection, which comes from EnkAi.

Maasai healers believe that environment and emotions play a big role in human health: An unhealthy environment and attitude cause illness, while a positive attitude in life helps one remain healthy.

**Sironka Ole Pere:** The environment that we live in brings sicknesses and disease. That is why there are different types of diseases. They can travel from place to place, in the air, in the meat we eat and the water. Again it is how you live, what you eat, what you share that creates discomfort and disease in human lives. It is not only the outside but also the inside environment: your feelings, your emotions. Even stress can create sickness. Stress brings tension, pressure, disturbed sleep and feelings of loneliness. This kind of stress does not affect us,



Maasai, since we are all one: it is not 'I', it is 'we'. 'We' brings comfort. That's why we live in extended families to comfort each other.

When there is rootedness in nature and EnkAi and an opening to the others, there is strength and joy. Happiness is the healer! As for us, we always choose to be positive. Even in times of enormous stress I tell you: 'I am ok, I am fine', and then later on I will say: 'We have some problems that are normal'.

One of the biggest problems of modern medicine is the overuse and inappropriate use of antibiotics in human (and veterinary) medicine, as well as synthetic antimalarial and anti-tubercular drugs. At the time of their discovery, scientists were not aware that bacteria would survive under adverse conditions. The resulting and resistant germs cause nosocomial (or hospital-acquired) diseases that are becoming a serious problem around the world. There is a resultant increase in drug-resistant strains, and new treatments will have to be found. This represents another important reason for conserving the rich and practical Maasai medicinal knowledge.

It is our hope that in the future, the value of traditional plant knowledge will be recognized and will share its rightful place alongside modern medicine to be used in the diagnosis, treatment, and prevention of illness. An important step forward has been taken lately, as proposed by the Kenyan government to include the integration of traditional herbal treatments under the national health care plan<sup>32</sup>. This will certainly benefit the Maasai.

## CONCLUSION

This research aims to document a thousand-year-old knowledge that is disappearing. It aims to safeguard the oral traditions of the Maasai people by documenting their ethnobotanical knowledge and the cultural significance of plants within their society.

Since the publication of this research, some initiatives have been launched, such as the creation of an easy pictorial book describing, with simplified text in English as well as in the Maa language, the seventeen most important plants of the Maasai people. These books have already been widely shared in primary schools around Maasailand, Kenya. Two botanical gardens have been created in the region of Kajiado and Amboseli to serve as a base of educational programs focused on traditional knowledge. In Amboseli, a conference has been held with Western doctors interested in integrative medicine, a healing-oriented approach that

32. 'State body to pioneer traditional medicine with pilot herbal center' Mbagathi Herbal center at Mbagathi Hospital a level 4 Referral Hospital, serving a catchment population of more than a million people, in the Nairobi Metropolis will be a pilot project that will establish a side-by-side facility for traditional medicines to work together with a facility for conventional medicine because of national demand' PEOPLE DAILY newspaper, October 15, 2024.

considers the entire person, encompassing all lifestyle aspects, such as Maasai medicine does<sup>33</sup>

We hope this initiative will be recognized by the education system within Maasailand and inspire further research from young Maasai scholars. We also hope it will allow the young generation to know their environment, treasure it, protect it, conserve these valuable resources, and ultimately document other fields of Maasai tradition to be universally shared.

It is, at last, an appeal to all indigenous peoples to start documenting and recording their traditional knowledge so that it can be safeguarded for generations to come and shared with the world.



Olamuriaki is a plant used during pregnancy or to soothe aches and pains.

33. Conference organized by the NGO 'My Chosen Vessels' (MCV) in 2019.

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