

# **Analysis of the Role of Indigenous People's Cultural Heritage in achieving Sustainable Development: the case of the Maasai of Kenya**

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## **Abstract**

Available literature demonstrates the important role cultural heritage plays in achieving the Agenda 2030. Thus, there is need to understand how appropriate management of the cultural heritage of indigenous peoples can promote achievement of sustainable development goals. The objective of the paper was to analyse the role of the cultural heritage of the indigenous Maasai of Kenya in achieving sustainable development goals. Mixed-methods approach and exploratory research design were used. Multiple data gathering instruments including in-depth literature review, field observations and key informant interviews were employed. Content analysis of the available literature was carried out and cross-tabulation used to present data. The key findings of the study are that 1) the Maasai Community continues to take pride in its cultural heritage especially their manyatta villages, moranism and indigenous knowledge even in a globalising world 2) the Maasai cultural heritage can help in achievement of Sustainable Development Goals (SDGs) 1, 2, 3, 4, 13 and 15) that the Ecological Systems theory and the Resilience Theory are both applicable in the analysis of the Maasai cultural heritage and environmental management including adaptation to climate change and that 4) the preservation of authentic Maasai cultural heritage faces numerous challenges that need to be addressed to ensure its sustainability and contribution to sustainable development. The study recommends that efforts should be made to digitise IK for future use by younger generations who may wish to learn more about their cultural heritage.

## **Key words**

Cultural heritage, indigenous knowledge, indigenous peoples, Maasai, sustainable development goals.

## **Introduction**

The vision of the Sustainable Development Goals (SDGs) launched by the UN in 2015 is to create a world free of poverty, hunger and disease (UN, 2015; ILO, 2016). This will lead to inclusive, sustainable, and prosperous world, where no one is left behind (UN, 2015). The SDGs are important to about 370-500 million Indigenous Peoples (IPs) found in many parts of the world (UN, 2023). These people have unique cultures characterised by distinct languages, beliefs, traditions as well as

valuable indigenous knowledge systems for the sustainable management of natural resources. They attach great importance to communal land, which ensures their existence and survival as communities (IFAD, 2016; ILO, 2016). Indigenous peoples consider land as a ‘commons’, which is very important for sustainable development, very much in line with the Agenda 2030.

Available literature demonstrates the important role cultural heritage plays in achieving the Agenda 2030 (UN, 2015, UN DESA, 2016). The contribution of the indigenous peoples in different parts of the world will be significant in realising this Agenda. Thus, there is need to understand how appropriate management of the cultural heritage of the Maasai community of Kenya can promote achievement of sustainable development goals. The objective of this paper was to analyse the role of cultural heritage in achieving sustainable development goals in Kenya, with specific reference to the Maasai.

## **Methods**

A mixed-methods and exploratory research design is used. Multiple data gathering instruments including in-depth literature review, key informant interviews (KIIs) and field observations were employed. Purposive sampling was used to select interviewees from the relevant Central Government, County departments, elders and women groups. In total, twelve (12) key informants were carefully selected in order to provide the required information on the Maasai cultural heritage and challenges facing it. The KIIs were also expected to demonstrate how the Maasai cultural heritage achieves the sustainable development goals.

Thorough literature search and review together with key informant interviews (KIIs) were used to understand how indigenous Maasai culture and knowledge systems can contribute to the achievement of sustainable development goals (SDGs). These research methods generated data and/or information on the cultural heritage of the Maasai who are an indigenous community in Kenya. The main sources of data for the in-depth literature review included scholarly journals, dissertations, other research reports and government reports. These materials were accessed from university libraries, relevant Central and County government offices, Non-governmental organisations (NGOs), the National Archives, Kenya National Bureau of Statistics (KNBS) and from the internet. Content analysis of the relevant literature on the topic was undertaken. Available literature was carefully and critically examined. Relevant theoretical and empirical literature was reviewed. The information provided by key informants and field observations in this study supplemented literature review.

## **Ethical considerations**

The study relied heavily on literature already published or unpublished. It was expected every effort was made by authors of such literature to observe ethical considerations including any copyright infringement. The author ensured that the identities of key informants were also protected by keeping them anonymous. No photos are used in the present study to record field observations as these would reveal the identity of participants. Information from the field was recorded in field note books only for use later on.

## ***Results/Findings***

The literature reviewed revealed that in Kenya, there are two groups of indigenous peoples, the pastoralists and hunter-gatherers. However, the distinction between the two indigenous groups is blurred. Some of the well-known pastoralists in the country include the Maasai, Samburu and Turkana. The hunter-gatherers are made up of the Ogiek, Sengwer, Waata and the Sanya (Makoloo, 2005, AfDB, 2016). These groups are represented in table 1. The focus of this paper is on the Maasai who inhabit Kajiado and Narok Counties of Kenya and who form the dominant group of the indigenous peoples in the country.

**Table 1: Some of the Indigenous Peoples of Kenya**

<b>Group</b>	<b>Source of Livelihood</b>	<b>Location (County)</b>
Maasai	Pastoralists	Kajiado, Narok, Nakuru
Samburu	Pastoralists	Samburu, Laikipia
Ogiek	Hunter-gatherers	Narok/Nakuru
Sengwer	Hunter-gatherers	West Pokot/ Elegeyo - Marakwet
Turkana	Pastoralists	Turkana
Rendille	Pastoralists	Marsabit/Isiolo
Borana/Oromo	Pastoralists	Marsabit/Isiolo/Garissa/Tana R
Somali	Pastoralists	Mandera/Wajir

**Source: Modified from AfDB (2016), table 1, p 10.**

Otieno et al., (2021) observed that the Maasai community has preserved its cultural heritage despite pressures from westernisation and globalisation, which makes it very attractive to tourists. The Maasai have to contend with challenges of modernisation and globalisation. Studies by Kaoga et al. (2021) and Kirigia (2022) made a similar observation. These studies established that as the world becomes more globalised, the Maasai community's survival becomes increasingly threatened by land fragmentation occasioned by privatisation of communal land. It was also expected that climate change would make their plight even worse due to shrinking pasture for their livestock.

## **Theoretical frameworks**

In-depth literature review also established that two theories are relevant in understanding how the Maasai pastoral practice ensures ecosystem sustainability and resilience even to climate change hazards. These theories are the Ecological Systems Theory and the Resilience Theory.

### ***The Ecological Systems Theory***

The Ecological Systems Theory, propounded by Urie Bronfenbrenner (1979), provides a comprehensive framework for understanding how various environmental systems influence human development and behaviour. The Maasai nomadic pastoral livelihood pursued for centuries is very much influenced by the environment in which they live. The community has also adapted very well to the harsh arid and semi-arid (ASAL) environment.

### ***The Resilience Theory***

The Resilience Theory is attributed to the ecological work of Holling (1973) and focuses on the capacity of ecosystems to absorb disturbances and rebound. The theory is relevant in the present research as it examines the adaptive strategies of indigenous peoples such as the Maasai. It helps in the deciphering of the relationship between indigenous knowledge (IK) and sustainable development.

Literature review and key informants established that for the Maasai, conservation of biodiversity is part of their own culture, history, and spirituality (WB, 2008). The Maasai have used their indigenous knowledge to conserve biodiversity for millennia. This has been confirmed by the study carried out by Kilongozi et al. 2004). They observed that the Maasai indigenous knowledge (IK) in animal husbandry, range management and forage plants plays a significant role in improving sustainable animal productivity, conservation of biodiversity and household food security (Kilongozi et al. 2004).

Ole-Miaron (1997) found out that the Maasai community just like other indigenous peoples around the world, use indigenous knowledge for their survival. The knowledge is transferred from one generation to another. This has led to the creation of a generational knowledge bank, which is stored and used for treating different animal diseases (ethno veterinary knowledge) as well as human diseases such as malaria, stomach up-set, fever and so on. Table 2 shows selected medicinal plants used by the Maasai People of Kenya for treating various illnesses.

**Table 2: Selected Medicinal plants used by the Maasai People of Kenya**

Scientific name	English Name	Maasai name	Part(s) used	Ethnomedicinal uses(Ailments/ disorders treated)
Acacia mellifera	Hook-thorn	Oiti	Bark	Pneumonia, chest pains, coughs, sore throat, malaria
Acacia tortilis	Umbrella-thorn	Oltepesi	Bark, leaves	STDs e.g. gonorrhoea, mouth ulcers, reduces vomiting, indigestion
Albizia anthelmintica	White albizia	Ormukutan	Bark	Malaria, stomachache, backache, induce vomiting and diarrhoea if one is suspected to have malaria, induce bile release from the gall bladder, deworming
Olea europaea	Olive tree	Olorien	Stem, root barks	Malaria, Pneumonia, deworming, Colds, Influenza, reduces blood sugar, cholesterol, and uric acid.

**Source: Modified from Kiringe (2006), Nankaya et al, (2019) and Kigen et al, (2019).**

Analysis of available literature and key informant (KII) interviews revealed that certain aspects of the Maasai cultural heritage can and do lead to the achievement of some sustainable development goals (SDGs) such as SDGs 1, 3 and 5.

### **Discussion**

Otieno et al. (2021), Kaoga et al., (2021) and Kirigia (2022) found out that the greatest threat to the unique and rich Maasai cultural heritage is a shift towards private ownership and titling of land. This has led to drastic changes in traditional land tenure, natural resource base has dwindled and this has put the Maasai cultural heritage in jeopardy. Vast areas of savannah that were formerly managed communally have been subdivided and put to new uses, including private ranching, agriculture, and commercial development. Despite the prominence given to pastoralism by the Maasai, the numbers of livestock have reduced drastically over the years, raising doubts about the sustainability of this form of livelihood (Kaoga et al, 2021). As a result, the Maasai are

currently struggling to preserve their culture and are diversifying their livelihoods by embracing farming, seeking employment in tourism sector and in urban areas.

The Ecological Systems Theory (Bronfenbrenner, 1979) is relevant in the present study as it aids in the understanding of the holistic and interconnected nature of environmental management practices of the Maasai. Indigenous knowledge (IK) is deeply embedded in the cultural and ecological contexts of the Maasai communities. The theory underscores the importance of indigenous knowledge and its critical role in maintaining ecological balance and resilience.

For a very long time, the Maasai have had rich indigenous knowledge (IK) about their environment and how to monitor and predict climate and seasonal cycles. They did this through observation of behavioural characteristics of biological components, cosmology and other traditional, socio-cultural methods (Saitabau, 2014). They still use the same IK to model weather events and livelihood management. In the past, the Maasai pastoralists were able to successfully track climate variability and employed a diversity of adaptation strategies to secure their livelihoods. The Ecological Systems Theory (Bronfenbrenner, 1979) outlines the strategies that the Maasai use to best adapt to their harsh environment. These strategies included transhumance, herd splitting, and keeping species-specific herds (Homewood et al. 2009, Oluoko-Odingo and Irandu, 2021).

Indigenous knowledge systems often embody resilience principles, such as diversity, flexibility, and local adaptability, which enable communities to cope with and recover from environmental changes and shocks. Application of the Resilience Theory is relevant here as it helps in the analysis of how the Maasai traditional practices contribute to the resilience of social-ecological systems, facilitation of sustainable resource management and long-term sustainability. For example, the mobility of Maasai herds allows for maximum and equitable exploitation of patchily distributed water and pasture (Mwangi, 2005). Nonetheless, these adaptation strategies have become untenable due to major demographic, economic, and environmental changes that have taken or are taking place within the ecosystem. (Homewood et al. 2009; Wangui 2008).

Subdivision of group ranches, their parcellation and distribution among individuals may hinder mobility, which is a vital component of livestock production systems under conditions of variability (Lesorogol, 2008; Kinyenze and Irungu, 2016). A rapid expansion of human population, shift in livelihoods from agro-pastoralism to more sedentary mixed crop- livestock production, change in land tenure and destruction of natural vegetation are some of the changes that seriously threaten the ability of the Maasai pastoralists to cope and adjust to climate change. Reduced mobility is likely to magnify vulnerability of the Maasai pastoralists to climate change and may jeopardize the viability of the livestock production system upon which their livelihoods depend.

One of the findings from literature review and key informants was that the Maasai community uses indigenous knowledge (IK) in developing a robust traditional medicine or ethno medicine for curing human diseases and ethno veterinary medicine for curing various animal diseases (table 2). As Kinyanjui (2014) found out, one of the most important elements of indigenous knowledge systems among the Maasai is the healthcare of livestock (ethno- veterinary medicine). Through trial and error, the Maasai ethno veterinary medicine has evolved into a sophisticated animal health care service whose practice is solidly based on a deep indigenous knowledge of livestock diseases and predisposing factors (Ole-Miaron, 1997). This knowledge has led to the development of traditional disease diagnostic skills. Traditional bioprospecting is used for the discovery and development of

new herbal products (Ole Miaron, 1997). Many important medicinal plants are found in the areas inhabited by the Maasai community. These medicinal plants are used for curing different human ailments such as arthritis, skin diseases and pneumonia among others.

Another important finding in this study is that the Maasai culture promotes conservation of biodiversity. The community's indigenous knowledge (IK) has been developed over generations through daily life practices and a close understanding of local environments, intricate knowledge of local flora and fauna, enabling them to steward their lands in ways that maintain biodiversity (Bagler, 2020). The traditional rotational farming practices of the Maasai people help preserve grasslands and support wildlife habitats.

According to a study by Western (2001) it was established that an elephant is highly respected and valued in the Maasai culture through a saying that goes 'cows grow trees, elephants, grow grass'. This led to a harmonious coexistence with wild animals on Maasai land. It was also believed that when a Maasai herder finds an elephant placenta in the grazing fields, it was a sign of fortune of owning a lot of livestock in the future if the herder constructs a temporary boma and spends a night there with his livestock (Chadwick, 1992; Kangwana, 1993; Kioko, 2004).

The Maasai cultural heritage can lead to the achievement of some sustainable development goals (SDGs). Some of the SDGs that are likely to be achieved are shown in table 3. SDG 3 (Good health and well-being), SDG 13 (Climate action) and SDG 15 (Life on Land) can also be achieved by the Maasai cultural heritage. For example, the Maasai indigenous knowledge (IK) contributes to promoting good health and well-being of the community. This leads to the achievement of Sustainable Development Goal (SDG) 3 through holistic approaches to health and healing using traditional medicine/ethno medicine. For generations, the Maasai traditional healers have relied on herbal remedies and spiritual practices to address illnesses and foster wellness. This practice has been very important in remote areas where access to modern healthcare is limited.

The Maasai indigenous practices for sustainable resource use and conservation not only contribute to life on land (SDG 15) but also to climate action (SDG 13) by preserving ecosystems that mitigate climate change. The Maasai indigenous knowledge (IK) like that of other indigenous peoples around the world, has been developed over generations through daily life practices and a close understanding of local environments. The Maasai people possess a lot of knowledge of local flora and fauna, which enables them to conserve biodiversity. Besides, the nomadic practice of the Maasai people helps preserve grasslands and support wildlife habitats. According to the available literature reviewed, the pastoral Maasai use a number of adaptation strategies to climate change (Seni et al. 2022). Some of the adaptation strategies include moving cattle to wetlands, destocking, buying dry grass, restoration of pasture through transhumance, keeping drought tolerant animal breeds and constructing cattle water dams.

**Table 3: Maasai Cultural Heritage and achievement of Sustainable Development Goals**

<b>Sustainable Development Goal (SDG)</b>	<b>Sustainable Development Target</b>	<b>How to achieve SDG Target</b>
<b>1. End poverty in all its forms everywhere</b>	<p><b>1.4.</b> By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.</p> <p><b>1.5</b> By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters</p>	<ol style="list-style-type: none"> <li>1. Recognising indigenous land rights of the Maasai community.</li> <li>2. Diversification of livelihoods e.g. agro-pastoralism, small-scale farming, engagement in profitable ventures e.g. cultural tourism, ecotourism and tour guiding, bead making, poultry keeping.</li> <li>3. Women to inherit property such as land and livestock upon death of spouses.</li> <li>4. Use of ICT to access markets directly for local and international tourists for handcrafts to minimise ethno-cultural plagiarism and exploitation by intermediaries.</li> <li>5. Maasai women to access microfinance to increase production of their handcrafts.</li> <li>6. Rotational grazing in Wildlife conservancies</li> <li>7. Adopting livestock production geared for the market using improved breeds.</li> <li>8. Digging boreholes and constructing sand and water dams to provide enough water for livestock and irrigated agriculture.</li> </ol>
<b>2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture</b>	<b>2.3</b> By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial	<ol style="list-style-type: none"> <li>1. Creating awareness to eradicate cultural barriers on nutritional requirements of children and expectant women.</li> <li>2. Access to education by girls for future career development.</li> <li>3. Capacity building for income generation through training women in entrepreneurship.</li> <li>4. Address human-wildlife conflict through adequate compensation to the pastoralists and agro-pastoralists.</li> </ol>



	<p>services, markets and opportunities for value addition and non-farm employment.</p> <p><b>2.4</b> By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.</p>	<p>5. Employment of Maasai morans in tourism and wildlife management as tour guides, hotel workers and rangers.</p> <p>6. Use of IK in selecting drought tolerant animal and crop breeds.</p> <p>7. Conservation of biodiversity: wildlife conservation for tourism and conservation of certain plant species for fodder during drought.</p> <p>8. Adoption of the conservancy model for proper natural resource management.</p> <p>9. Maintaining landscape connectivity and planning: protecting wetlands, mountains, forests.</p>
<p><b>5. Achieve gender equality and empower all women and girls</b></p>	<p><b>5.1</b> End all forms of discrimination against all women and girls everywhere</p> <p><b>5.3</b> .Eliminate forced marriages and genital mutilation</p> <p><b>5.5</b> Ensure full participation in leadership and decision-making.</p> <p><b>5.7</b> Equal rights to economic resources, property ownership and financial services</p>	<p>1. Ensuring girl child accesses formal education.</p> <p>2. Empowering Maasai women through income generation activities(IGAs) such as bead making, bracelets and garments</p> <p>3. Training, availing credit and marketing beads and other body ornaments produced by women.</p> <p>4. Elimination of early and forced marriages and Female Genital Mutilation (FGM among the pastoral Maasai community.</p> <p>5. Allowing women to occupy leadership positions at all levels and to make decisions affecting the Maasai community (women voice to be heard).</p> <p>6. Access to ownership and control over land and other forms of property.</p> <p>7. Access to credit and microfinance.</p>

		8. Right to inheritance of family property upon death of spouse.
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**Source: Compiled by Author, 2023.**

Despite the fact that the Maasai indigenous knowledge (IK) provides valuable methods for achieving sustainable development, there are a number of challenges that need to be resolved. Majority of key informants (67%) stated that elders pass IK from one generation to another orally and along gender lines. This finding was consistent with that of Nankaya (2014). However, the passing on of elders who are the custodians of indigenous knowledge (IK) before it is documented for posterity poses a big challenge to the community.

Published literature analysed also established that tourism is responsible for the commodification/commercialization of the Maasai culture with more members of the community turning to tourists for financial gain (Irandu, 1995, 2004; Leleto, 2019). The Maasai morans can be seen performing traditional dances, which were once meant for ceremonial events for tourists in hotels and other tourist facilities. Most of the cultural performances by Maasai morans in lodges in Maasai Mara or in beach hotels along the Kenya's coast are more commodified than those in Maasai Manyattas (Irandu, 2004). There has been appropriation and misrepresentation of the Maasai culture by non-Maasai communities as well. This constitutes neo-ethnic plagiarism of the Maasai culture and poses a serious challenge to its authenticity (Irandu, 2004, Otieno, et al., 2021).

## **Conclusion**

As revealed by literature review and key informant interviews, subdivision of the Maasai commons demonstrates the complexity of land privatisation processes in Kenya's rangelands (Kirigia, 2022). Contrary to the expectations that life under the private individual tenure will secure the future of the Maasai community fails to account for the reduction in the mobility that has been instrumental in pastoral production systems in the Maasai rangelands for generations.

The study established that the custodians of IK are the Maasai elders who transmit it orally from one generation to another. There is urgent need to document this valuable heritage before it disappears with passing on of elders. This can be digitised for future use by the younger generations who may wish to learn more about their cultural heritage.

However, although the vision of the SDGs launched in September 2015 by the UN was to create an equal world where nobody was left behind, no due emphasis was put on the role of cultural heritage in promoting sustainable development. The fundamental qualities of cultural sovereignty that are key for maintaining sustainable practices, values, and lifestyle habits were left out. In other words, none of the 17 SDGs emphasize the need to protect cultural heritage as a pathway to sustainability. Further, threats to IK, traditional lifestyles, and alternative livelihoods are absent. Hence, the feeling by indigenous peoples around the world that they, and their cultural sovereignty, remain unrecognized by this new sustainable development agenda. In this regard, there is raging debate as to whether to include a standalone sustainable development goal "number 18" that recognizes the role of cultural heritage (Poole, 2018).

There is also need to recognize the role of indigenous knowledge (IK) in achieving sustainable development goals (SDGs). There is lacuna in the framing of SDGs and an important pillar of sustainable development, cultural heritage is missing in the 2030 Agenda. Therefore, it is strongly recommended that global partnerships be established involving indigenous peoples and scientists from different countries and various disciplines in order to realise the benefits of ethnobotanical knowledge such as alleviating poverty, ending hunger, providing better healthcare, conserving biodiversity and combating climate change. Indigenous knowledge (IK) can be supplemented with the modern advancements in science. If planned properly, blending of IK and modern science can contribute to achieving the SDGs and their set targets.

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