

# 3 The nexus between indigenous beliefs on environment and climate change adaptation amongst the Sengwer in Embobut Forest, Kenya

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## **Background**

Climate change is one of the most serious challenges to humanity's survival, making environmental adaptation and conservation critical to mitigating its impacts. Cherangany Hills, in Kenya, is among the water towers currently facing environmental degradation, thereby exposing the country to the devastating effects of climate change such as disease outbreaks, drought, hunger, and flooding. The Sengwer is the indigenous community, but among other settlers in this region are other Kalenjin dialects and other minority groups. The Sengwer have historically identified parts of the Cherangany Hills as their ancestral land. Using literature-based research methodology, from published works, this chapter re-examines the Sengwer beliefs on natural environmental resources in connection with climate change adaptation and resilience. This chapter is set out to outline how the intricate relation amongst the Sengwer indigenous people and their environment contributed to climate adaptation. The chapter explores the Sengwer people's religious beliefs that divinely valorized the environment and acted as adaptive models to perturbations of climate change. It engages this in the context of the Sustainable Development Goal (SDG) 13, on climate action.

## **Introduction**

The current Anthropocene epoch is marked and shaped by the environmental crisis that stems from human activities on the earth that have led to anthropogenic climate change (Malhi, 2017). Humanity has contributed significantly to the processes of change, which in turn has affected the environment, landscapes, and climate. This has led to unprecedented loss of biodiversity, environmental degradation, endangering plants, animals, birds, and insects, as well as others facing extinction (Johnson et al., 2017). Humanity has affected the earth with colossal appetite fuelled by colonialism and industrialization, jointly with its accompaniments of consumerism and modernity. It is imperative that

since human forces have played a critical role in the current crisis, we retrospectively re-examine the ecocentric belief system amongst the Sengwer indigenous people. Over the past decades, there has been considerable increase in the acknowledgement of indigenous knowledge and indigenous peoples' rights and land rights. Biodiversity that is found in indigenous landscapes is highly dependent on their knowledge's beliefs and practices on the environment that connect them to their land (Proulx et al., 2021).

The United Nations Climate Change Conference has recommendations for countries to ensure respect for the knowledge and rights of indigenous peoples and members of local communities; they also advocated for the full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities (Davis, 2010; UNFCCC, 2010). World religions issued statements in regard to climate change and in support of the Paris Agreement, which is one of the most ambitious agreements to limit greenhouse gases in the atmosphere. They agreed that climate change is a global concern that needs to involve religious traditions to provide moral leadership and ethical values (World Council of Churches, 2016).

At the African Union, there is an ongoing focus on the environment and emphasis on the capacity support to Regional Economic Communities (RECs) and member states on the implementation of Multilateral Environmental Agreements (MEAs) to meet obligations. This entailed the creation of a specific unit that is devoted to the AU Commission in advancing efforts towards MEAs and environmental sustainability. Further, the African Union promotes research, including indigenous/traditional knowledge to support Africa during negotiations and implementation towards environmental sustainability.<sup>1</sup>

### **Climate change in Kenya**

African countries are no exception to the effects of climate change and environment degradation that has affected the entire globe. Africa has been identified as the most vulnerable to the impacts of climate change. Changes in extreme weather and climate conditions have come as a result of human actions that have continuously impacted the ecosystem negatively. The Intergovernmental Panel on Climate Change (IPCC) report on Africa indicates the impacts from recent climate-related extremes, such as heat waves, droughts, floods, cyclones, and wildfires; it reveals significant vulnerability and exposure of some ecosystems and many human systems to current climate variability (IPCC, 2018). The report notes that the Early Warning Systems Network (FEWS NET) indicates that there has been an increase in seasonal mean temperature in many areas of Kenya over the past 50 years. It also notes that regional climate model studies suggest drying over of most parts of Uganda and Kenya in August and September by the end of the 21st century. Additionally, the World Meteorological Organization (WMO) in its state of the climate in Africa report indicates the growing impact of climate change on health,

food, housing, and economy on the African continent (World Meteorological Organization (WMO), 2020).

The aim of the Paris Agreement adopted in 2015 was to combat climate change – accelerate and intensify actions and investment for a sustainable low-carbon future. Countries that are signatories to the Paris Agreement undertook to come up with Nationally Determined Contributions (UNFCCC, 2015). The Sustainable Development Goal 13 calls for an urgent action to combat climate change and its impacts. It is clear from the Sustainable Development Goal 13 that the global nature of climate change calls for solutions to be coordinated at the international level and requires international cooperation to help developing countries move towards a climate-resilient and low-carbon economy.

Many countries in Africa have come up with the National Adaptation Programmes of Action (NAPA), which are meant to provide immediate plans to cope with climate change. In Kenya, the National Climate Change Response Strategy (2010) (NCCRS) was the first national policy document to acknowledge the reality of climate change and proposed adaptation and mitigation strategies to curb the impacts of climate change on different socio-economic sectors in Kenya (Government of Kenya [GOK], 2010). Later, in 2016, the Kenya Parliament enacted the Climate Change Act (2016), which requires the government to develop five-year National Climate Change Action Plans (NCCAP) to guide the mainstreaming of adaptation and mitigation actions into sector functions of the national and county governments.

So far, two action plans have been developed: first, NCCAP 2013–2017, and second, NCCAP 2018–2022 (Government of the Republic of Kenya, 2018). The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which was adopted in 2007, guarantees indigenous peoples' rights even though Kenya is not a signatory; nevertheless, the Constitution of Kenya recognizes the rights of minority people, and the hunters gather together for safeguarding their ancestral rights. Despite the legal and policy framework instituted to safeguard the rights of the indigenous people to conserve the environment and mitigate against climate change, dispossession of indigenous peoples' land as part of the modern conservation practices still persists (Domínguez & Luoma, 2020). It is becoming increasingly clear that techniques rooted in colonial ideologies and models that alienate indigenous people from their landscape cannot provide a remedy to the current crisis.

### **Cherangany Hills water catchment and conservation issues**

Drawing from the previous works on “The Sengwer traditional religion and environment sustainability in Embobut Forest, Kenya” (Mamat 2020) and “The Ogiek indigenous people, land rights and the environment” (Maseno 2020), this section brings to sharp focus the main conservation issues surrounding the Cherangany Hills catchment. Cherangany Hills is witnessing the effects of climate change and environment degradation as more and more people are facing hunger and starvation. Moreover, there is an alarming and unprecedented rise

in water level in several lakes in Kenya due to climate change. Most notable are Lake Victoria, Lake Baringo, Lake Bogoria, Lake Turkana, and Lake Naivasha (Omondi, 2020). This is attributed to the changing rainfall patterns from the surrounding catchment areas, such as the Cherangany region.

There are five major montane forests in Kenya: Mau Forest Complex (covering 400,000 ha), Aberdare Range (covering 250,000 ha), Mt. Kenya (covering 220,000 ha), Cherangany Hills (covering 120,000 ha), and Mt. Elgon (covering 73,706 ha), and they constitute an important water catchment resource (Kipkore et al., 2014). The Cherangany Hills, one of Kenya's main forest and catchment areas, is located in the western highlands, which is divided by the Mau Escarpment rising from the border with Tanzania all the way to the Cherangany Hills. The Mau Escarpment brings together the plateau that rises to the slopes of Mount Elgon, making the Cherangany Hills span three counties, namely, Trans Nzoia, Elgeyo Marakwet, and West Pokot.

On Cherangany Hills are the Cherangany Forests, a collection of 13 forest reserve blocks in western Kenya, with an area of about 1,200 square kilometres, 956 square kilometres of which has been gazetted into forest reserves. The three western blocks, Kapkanyar, Kapolet, and Kiptaberr, are larger and more consolidated and constitute about 20% of the Cherangany Hills Forest. The rest of the forests are fragmented, cut by grasslands, bushlands, and croplands (GOK, 2019; Nadir et al., 2019). There has been a substantial land cover change in the Cherangany ecosystem as the forests have been converted to grasslands and farmlands. The drivers of these land changes have been attributed to deforestation and land degradation (Rotich & Ojwang, 2021).

Other common degradative activities facing Cherangany Hills include cattle grazing, infrastructural development, intensive logging, charcoal burning, landslides, and human encroachment for agricultural activities (Imo, 2012; Kagombe et al., 2015). The depletion of biodiversity and the destruction of the natural and cultural landscape of this area have had far-reaching effects not only on the surrounding communities but also on the whole country. The increasing deforestation has affected the hydrological cycle; hence the amount of rainfall is reducing. Furthermore, decreased water levels in rivers as a result of the decreasing indigenous forest cover have been observed (Nadir et al., 2019; Rotich & Ojwang, 2021).

The hydrological imbalance on the Cherangany Hills has led to the prolonged drought and flooding that Kenya has frequently experienced in the recent past. "Rainfalls have become irregular and unpredictable, and when it rains, downpour is more intense. Extreme and harsh weather is now a norm in Kenya" (GOK, 2010). If the forest is left to deplete and the environment is degraded, the surrounding areas which receive convectional rainfall may experience the effects of climate change such as desertification conditions due to drying up of rivers, soil erosion due to increased surface runoff, and flooding due to soil siltation in water bodies (Nadir et al., 2019). At the same time, the destruction of the natural resources may lead to the death of aquatic fauna and flora.

The approach to the conservation of the Cherangany water catchment areas has been flawed. The World Bank's natural resources management programme (NRMP), which is part of the UN's Reducing Emissions from Deforestation and Forest Degradation (REDD) programme, has repeatedly displaced indigenous communities from their ancestral lands, infringing on their basic human rights. More intense evictions are synonymous with a reduction of forest cover and degradation of the ecosystem. These programmes appear to have failed in recognizing the cultural and religious contribution of indigenous people to climate change mitigation and adaptation.

According to the Blackburn (1974), the Sengwer is a group of "Okiek," Kalenjii-speaking, forest-inhabiting foragers. They are clearly closely related to the Pokot and Marakwet, with intermarriage being common, and today most people engage in a mixture of agriculture and gathering, with a particular focus on honey collecting (Davies, 2006). The Sengwer (also known as Cherangany or Dorobo) is an ethnic minority of hunter-gatherer indigenous people living within the Cherangany Hills. They belong to the corpus of Ogiek, who are hunter-gatherers spread in the Kenya highland areas.

The Sengwer's cultural administrative organization is made up mainly of clans that identify with a particular totem. The Sengwer livelihood, health system, and culture depend on the natural resources found in the forests (Mamati 2020). Their traditional economies are based on herbal medicine, bee keeping, and hunting and gathering. The forests support their cultural practices and so provide spiritual anchorage (Kenrick, 2014). The colonial and postcolonial government policies on hunters and gatherers ensured that they assimilated into other bigger tribes. Their ancestral lands were gazetted by the colonial and the subsequent postcolonial governments (Kenrick, 2014). Despite the gazettement, which was meant to protect the forests, environmental degradation has continued unabated.

Agricultural expansion, introduction of exotic trees, and crops, logging, population growth, over grazing, and settlement of other communities has affected the ecocentric worldview and livelihoods of the Sengwer indigenous peoples. Furthermore, these measures by the government in the name of conservation have seen many acres of land allocated through corruption and other dubious means to political cronies and dominant neighbouring communities. In addition, the Sengwer have faced numerous evictions from their ancestral lands by the government disguised as measures to conserve the Cherangany ecosystem (Crook & Short, 2020; Mamati, 2018). The consequence of losing their land was not only losing a place to hunt, to collect honey, and to find their traditional medicines but also losing their social religion and cultural anchoring and sustenance (Mamati, 2018; Maseno, 2020, p. 260). This has led to systematic destruction of the water catchment, exposing the local area and the country at large to the devastating effects of climate change, as the Cherangany people who are the custodians of the water tower are no longer in charge of the protection of the water tower.

## **Religion and climate change adaptation**

The 2015 Paris Agreement specifies that adaptation action should follow a country-driven, gender-responsive, participatory, and fully transparent approach, taking into consideration vulnerable groups, communities, and ecosystems and should be based on and guided by the best available science and, as appropriate, traditional knowledge, knowledge of indigenous peoples, and local knowledge systems. This recommendation includes the deep involvement of the local community.

Scholars have called for the involvement of religious communities in alleviating the environment crisis and climate change (Jenkins et al., 2018; Veldman, 2013). They acknowledge that whereas religion in itself cannot be sufficient in tackling the environment and climate change crisis, it can be a necessary partner together with other fields such as economics, policy, science, and education. Religion has been regarded as a chief driving force of humans and ideology around both the mitigation and adaptation to the environment and climatic change (Bergmann, 2016). Nevertheless, decision-makers underestimate the religious and sociocultural dimensions in environment conservation, climate change mitigation, and adaptation.

Religion plays an important and key role in influencing people's perceptions, attitudes, and actions towards a certain goal. Certain values and orientations may be derived from religion, which can be useful in fostering more ecologically appreciative worldviews and environment ethics that can promote the conservation of the environment and climate change adaptation (Hitzhusen & Tucker, 2013). Several religious communities have made commitments to environment crisis and climate change. For instance, meetings of World Council of Churches have called for the need for eco-justice concern of the planet (World Council of Churches, 2016). The widely acclaimed Pope Francis's encyclical *Laudato Si': On Care for Our Common Home* contends that the environmental crisis is not only a scientific, political, and economic problem, but also a moral and spiritual challenge. The Pope links the current environmental crisis to a crisis of values (Tilche & Nociti, 2015).

Ernst Conradie has aptly argued that there is a need for re-description of the term environment to reflect on the need for the sanctification of the whole earth. With the syncretic kind of religion being practised in African countries, where people subscribe to a fusion of their African religion and other foreign religions, Conradie challenges "African Christians to look for common goals and a common ethos and may on that basis offer the rest of the world something of traditional African wisdom" (Conradie, 2012). This will lead local churches to become sustainable communities that are well suited to be adaptive and resilient to climatic changes.

Chitando (2017) calls upon African religious leaders to be actively involved rather than sitting on the fence as they cry foul of not being involved in combating climate change. Religious leaders given their role in the society are better placed to communicate climate change and create awareness among the

congregation. Chitando calls upon church leaders to promote climate change education (CCE) in their schools. They would be working in collaboration with governmental ministries of education and other relevant ministries and play a leading role in promoting such education about climate change (Chitando, 2017). Given the fact that most schools in Kenya are sponsored by churches, these churches are better placed in spearheading climate change awareness and communication among the growing young populations at schools.

Mbiti contends that “Africans are notoriously religious” and that “religion permeates all the departments of life so fully that it is not easy or possible always to isolate” (Mbiti, 1975). Religion undoubtedly influences human behaviour. This in turn influences people’s behaviour in relation to the local environment and climate changes. The succeeding Sengwer religious permeation can be harnessed for effective adaptation and mitigation to climate change.

### **Indigenous beliefs and climate change adaptation**

Veldman et al. postulate that religion may become a key agent in the fight against climate change and environment crisis. They assert that “the religions of the world have the ability to decisively impact how societies all over the world respond to climate change” (Veldman, 2013). The Sengwer indigenous people found within Cherangany water catchment areas ritually articulate their relationship with their environment through adaptive beliefs on the environment.

The Sengwer worldview on natural and environmental resources is “eco-centric,” and this perspective ensures stewardship of the environment by members of the community. Unwritten rules and regulations of the community, enshrined in the religious and cultural beliefs and practices of the Cherangany, have shaped the effective utilization and conservation of the natural resources found within their locality (Mamati, 2018; Mamati, 2020). This is clearly seen when the Sengwer find value in all life forms within the forests and tend the forests as their primary home. Their primary interaction with the forest habitat serves the good of the entire ecosystem, including their abiotic components.

Ecologically, it is clear that the endangering indigenous peoples and their livelihood practices also endanger species and habitats. What then are the Sengwer populace religious influences on the environment and climate change adaptation in a bid to create climate change resilience in the Cherangany water catchment area? It is important to understand how the Cherangany communities’ religious beliefs have been involved in environment conservation and how these beliefs are attributed to climate change adaptation. These beliefs are seen as helping in tackling climate change and concomitantly improving the overall well-being of the people in Cherangany at large. The succeeding discussions show how the community used its indigenous beliefs as adaptive models for resilience in face of climate change.

Like many Africans, the Sengwer believe in ancestors known as *Ooy*. The ancestors are buried in the forests; they are said to have transited to the world of the living dead. Africans, more often than not, including the Sengwer,

conceive time in a cyclical pattern. Life moves from birth to death and back to life by reincarnation. In this schema, land was of great significance. At the same time, the trees, caves, streams, and rivers were also imbued with spirits. Thus, all the realms of life were sacralized with no distinction between the sacred and the profane, thus providing an important eco-theology (Maseno, 2020). The Gikuyu had a close relation with trees, especially the Mugumo tree, as they believed that trees were the abode of ancestral spirits Goma and the abode of God (Karangi, 2008). The ancestors whose spirits inhabited the forests and the Sengwer landscapes were respected; this ensured a harmonious coexistence devoid of all the climate-related hazards.

Totems are a prominent feature in various African societies that illustrate the intricate relationships that different communities have with various animals, birds, or insects. The threatened polar bears and seals found in the arctic have gained iconic status and prominence in recent years, as they have been used as totems symbolic of the devastating effects of climate change (Tam et al., 2021: 5). The Isukha community in western Kenya have plants, animals, and birds that act as totems for each particular clan, and they are mandated to protect them (Omare, 2011: 4). Among the Ndaue people in southeast of Zimbabwe, totemism maintained a sense of identity, belonging, and collective responsibility of members of the society towards nature (Rusinga & Maposa, 2010: 205). A close ethnographic study of the totems amongst the Sengwer shows a fascinating illustration of how the human-animal relationships, according to which clans take the name of various animals and are pledged to conserve them, are augmented by healing traditions and even oral traditions and songs (Mamati, 2020). Many of these animals inhabited the forests, and therefore destroying their habitats was unthinkable. Rather, the forests were conserved using indigenous knowledge to avoid invoking curses from Assis (God) and Ooy (ancestors) among the Sengwer people. Totems also communicate the important aspects of the need to take care of the environment to avoid the wrath of the Supreme Being. The Supreme Being also used birds, which would become the community's clan to indicate of an impending climatic calamity.

There is an increased recognition of the role of taboos as informal and unwritten community's law guiding human interaction with the non-human. Taboos bound individuals and their communities towards a common goal, without the need for external enforcements (Alexander et al., 2017; Uyeda et al., 2016). The observance of taboos guides the relationship amongst the individuals, their community, and the environment. Sengwer religious beliefs on taboos play an integral role in determining the positive values and attitudes towards the environment. Their worldview is anthropocentric in nature and sees a healthy environment providing the community with all its needs and wants, for instance, the honey, medicine, and religious adorations that are found within the forest (Mamati, 2020). Agricultural communities, such as Akan in Ghana, utilize their indigenous beliefs on farming practice and the institution of sacred groves which has ensured the conservation of the environment, thus mitigating against climate change (Awuah-Nyamekye, 2019). Preservation



and conservation of the landscape and the environment is considered vital for the general well-being of many African communities. In this regard, the Sengwer use taboos as an ethical and moral tool to control human behaviours and actions towards the environment, which in turn promotes good relations between human beings and the natural environmental resources enabling the community to adapt to perturbations of climate change.

Hunting or killing a pregnant animal, breastfeeding animal, or a young animal is forbidden among the Sengwer, putting future generations of that animal species in jeopardy. If a gestating animal is injured, the Sengwer take care of that animal and treat it until it is healed. Failure to do so, in the local Sengwer belief, could lead to drought, hunger, famine, infertility, death, and loss of children (Mamati, 2020).

The place of myths and stories in relation to environmental conservation plays a critical role (Maseno 2011). It is important to note that African societies had myths and stories whose sole purpose was to ensure a harmonious relationship between human beings and non-human beings (Awuah-Nyamekye, 2019). The colonial systems were meant to discredit African myths and associate them with fiction and falsehood for them to entrench their knowledge and systems. Christianity was used as a tool for demonizing African myths and stories, yet they enabled communities to adapt to different environmental situations (Muasya, 2021).

Monbiot (2017), a British zoologist cum journalist, has rightly argued that stories help human beings to navigate, explain, and interpret the world. Stories play a critical role in moulding a community's reality. The Sengwer used stories to convincingly connect individuals as well as the whole community to their natural environment (Mamati 2020). Parents and elders narrated to children and the youth important ecological stories that nurtured the sensibility and consciousness of young people on environmental issues. Story telling is an important feature that happened during the seclusion period, initiates are told ancient stories of their environment and climate and how the community handled different climatic conditions. At the fireside in the evening, during hunting and gathering sessions, important Sengwer stories were passed on to members of the community (Mamati & Maseno 2021). Communicating the past adaptive and mitigation measures led to a more adaptive and resilient group of the society that became aware of the mitigation and adaptation measures to be put in place in case of climatic variability.

Herbalists are medicine men or women who act as native doctors in African societies prevalent among the Sengwer. Sengwer herbalists are experts in providing medicine in the community (Mamati, 2020). The forests found in the highlands of Cherangany and the shrubs in the lowlands of Kerio are the main sources of medicine for the community. The herbalists were sensitive to the changing climate and more often they could inform the community on climatic changes that had affected their trade. Nche (2014) noted that climate change affected the availability of traditional herbs, and also has led to the emergence of many new diseases and epidemics. It has challenged the capacity

of traditional herbalists to provide a cure. Hence, herbalists played a critical role in communicating the changing climatic conditions and informed the community of the need to protect the environment lest they be bedevilled by unforgiving Mother Nature.

Indiscriminate depletion of the forest and degradation of the environment due to anthropogenic activities is the greatest contributor to global warming. Thus, a variety of species, biodiversity, and trees influences forest carbon stocks that play an important role in carbon storage and sequestration (Aryal et al., 2018; Pragasan, 2020). The Sengwer community has various beliefs that guide the effective use of the flora. They hold that all trees are an abode of spirits; hence, it is regarded as taboo to cut down trees, because the spirits would be annoyed with the community. The elders had the sole responsibility of the usage of trees, and they are the ones who authorized the cutting of certain trees for religious or cultural functions, thus ensuring that the trees were efficiently used and managed. It is believed that any person who went against the elders and destroyed the forest or harvested trees without permission was punished by Illat (the thunder god), who would strike such people to death (Mamati, 2018; Mamati, 2020). Karangi (2008) has poignantly demonstrated how trees among the Kikuyu community were significant for Gikuyu well-being and identity. He extensively discusses the sacredness of the Mugumo tree, and how the Gikuyu mirrored their cosmology and political and social identifications. Amutabi (2012) has highlighted how various trees had both spiritual and physical significance among the Abaluyia people in western Kenya. Thus, in many African communities, impacts of climatic changes such as floods, droughts, and outbreaks of diseases were directly imputed to a broken relation between the physical world and the spiritual world. For it to be reinstated, members were required to restore their harmonious relationships with their surroundings.

Clearly, indigenous people's knowledge and practices on the environment had been traditionally sidelined in favour of contemporary ways of environment conservation by successive postcolonial governments. Yet, widespread evidence shows that indigenous people such as the Sengwer as well as other African communities' indigenous people have a religion that is intrinsically environment friendly (Awuah-Nyamekye, 2019; Mamati, 2020; Rusinga & Maposa, 2010). Since time immemorial the Sengwer indigenous people have held important conservation knowledge, which has helped them adapt to climatic changes that have always remained untapped. The above-mentioned religious beliefs, behaviours, and attitudes of the Cherangany on the environment have an impact on climate change adaptation within the Cherangany water catchment area.

In essence, these rituals infused with religious significance require the serene environment in which they are situated. The confluence of spirits, totems, living dead, and the initiates, all work together for the success of the attendant rituals. It follows that there are numerous religious beliefs associated with their sacred landscape, which help in ensuring that members of the Cherangany community do not interfere with the sacred places. These beliefs continue

to ensure that the natural resources within the sacred landscape were conserved. These religious beliefs were key in enhancing mutual social, economic, and ecological reciprocal relationship, which acted as succour during climate variability.

## **Conclusion**

Although there have been growing research interests across the globe on religion, ecology, environment conservation, and climate change (Northcott, 1996), there has been scarce recognition of religion in environment governance, environment policy formulation, and climate change discourses. There has traditionally been a notable exclusion of indigenous religious beliefs in climate change discourses, as climate change has been framed as an exclusively scientific problem shaping efforts to curb climate change predominantly along natural sciences perspectives. Religion and culture have been conspicuously missing as a factor that can help in mitigating the effects of global warming. Tarusarira points out that the existing strategies and programmes have not taken into account the spiritual and cultural dimension to solving the environment crisis in Africa (Tarusarira, 2017). He further postulates that it is imperative for climate change approaches in Africa to take note of the influence of African religion.

Whereas the Sengwer community as well as many other traditional African communities exemplify different adaptations and coping strategies to the variabilities of climate change as mentioned above, they have gone unnoticed and unrecognized when decisions are being made that directly affect their livelihoods. A deeper analysis of their religious ways of life shows that their beliefs are in congruent with measures put in place to achieve the sustainable development goals of 2030 and the ambitious Paris Agreement. In view of an IPCC assessment report which notes that indigenous, local, and traditional knowledge systems and practices, including indigenous peoples' holistic view of community and environment. They are also a major resource for adapting to climate change. However, they have not been used consistently in existing adaptation efforts; there is much to be proactively done.

This chapter has shown that any adaptation and mitigation to the environment and climate change does not only require the engagement of scientists and political leaders but also religious beliefs of local people such as the Sengwer community as they also could contribute towards a moral awakening on climate change. It has pointed out religious beliefs with far-reaching consequences on environmental degradation of the Cherangany water catchment. These beliefs from the African religion when taken into account and encouraged have far-reaching consequences on climate change mitigation and adaptation. There is an understanding that Cherangany religion shapes human behaviour in relation to environmental changes. This chapter has shown that it is important to understand environment and climate change adaptation from an indigenous religious perspective in the specific context of Cherangany.

Although Sustainable Development Goal 13 calls for an integration of climate change measures into national policies, strategies, and planning, a challenge faced by indigenous peoples is that indigenous perspectives are underrepresented in national-level climate change programmes and initiatives. Indeed, indigenous involvement is lacking on many national climate change committees, working groups, and initiatives, leaving indigenous perspectives and concerns absent from this level of dialogue. This disadvantages the national climate change efforts because indigenous peoples have valuable knowledge crucial to the development of effective climate change solutions. It is notable that many reports rely on the publication of peer-reviewed literature but do not take into account the perspective of indigenous traditional knowledges and oral traditions. This means that many finished reports often further marginalize indigenous perspectives.

## Note

- 1 The African Union Multilateral Environmental Agreements. <https://au.int/en/meas> visited on 2.9 2021.

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