

# Harnessing the economic value of indigenous knowledge in Kenya: a qualitative review of the legal framework

Economic  
value of  
indigenous  
knowledge

Joel Nakitare

*University Library, Rongo University, Nairobi, Kenya and  
Department of Information and Knowledge Management,  
Technical University of Kenya, Nairobi, Kenya*

Fredrick Otiike

*Institute of Library and Information Science, Eötvös Loránd University,  
Budapest, Hungary, and*

Lydia Mureithi

*University Library Services, Dedan Kimathi University of Technology, Nyeri, Kenya*

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## Abstract

**Purpose** – Commercial entities have recently expressed growing interest in commercialising indigenous knowledge (IK) due to its enormous economic and intrinsic value. As this happens, custodial communities must not be disadvantaged in the process. This paper aims to understand the legal framework of the commercialisation of IK to identify the opportunities and factors impeding or affecting the commercialisation of indigenous knowledge in Kenya.

**Design/methodology/approach** – The study used a qualitative research approach. An extensive exploratory literature review of existing legal instruments was done to establish the progress and gaps for commercialising indigenous knowledge in Kenya.

**Findings** – The study shows that the legal framework of IK in Kenya is inadequate. There are no well-established frameworks and policies to protect IK in Kenya, and thus, host communities are subjected to exploitation. The diversity of tribes and communities makes it challenging to have a clear framework, mainly because IK is a devolved function. The study identifies the Protection of Traditional Knowledge and Cultural Expressions Act 2016, The National Museums and Heritage Act 2006 and the Natural Products Industry as the key milestones towards commercialisation of IK, while inadequate documentation of IK, communal ownership and inadequate legislation were identified as the main impediments to commercialisation of IK in Kenya.

**Research limitations/implications** – Owing to the diverse cultures and tribal communities in Kenya, the research could not access all the literature on all traditional IK in Kenya, and very few case studies have been conducted in Kenya.

**Practical implications** – The gaps identified in the legal framework can form a basis for legislation, policy change, actions and research needed to improve the commercialisation of IK.

**Originality/value** – The paper underscores the importance of balancing economic empowerment with preserving cultural integrity and protecting indigenous rights in commercialisation.

**Keywords** Indigenous knowledge, Commercialisation, Legal framework, Cultural preservation, Challenges, Opportunities, Kenya

**Paper type** Research paper



## Introduction

Scholars have provided varied definitions of indigenous knowledge (IK), as no universally accepted description exists. For example, according to [Kwanya \(2015\)](#), IK refers to specific, local knowledge developed within and around the particular conditions of the indigenous community of a given area. [Oguamanam \(2023\)](#) refutes pigeonholing IK definition that narrows the concept to what is and what is not and thus defines IK as a complex system that encompasses a wide range of domains, including agriculture, medicine, natural resource management, storytelling, art, language and spirituality. IK is generated within communities, locations and is culture-specific. Even though it is not systematically documented, IK forms the basis for decision-making and survival strategies; concerns critical issues of human and animal life: primary production, human and animal life and natural resource management; dynamic and based on innovation, adaptation and experimentation; and finally, it is oral and rural ([Ford et al., 2020](#); [Nakashima, 2010](#)).

IK is a body of information passed down through generations in a given locality. It is acquired through experiences, relationships with the surrounding environment and traditional community rituals, practices and institutions. IK is unique to a given culture. It is predominantly tacit and embedded within a specific community or society in a particular geographical area, thus not usually transferable ([Obiero et al., 2022](#)). IK is communally owned and passed down from generation to generation. This knowledge includes information about things such as food, agriculture, culture, land, forestry, livestock, fisheries, plant and animal production, natural resources, health and hygiene, education, environmental management and conservation, tourism, trade and industry through the creation of institutions, governance, conflict management, training and information exchange and research and development, among other things ([Oguamanam, 2023](#)).

In most cases, IK is only relevant to the immediate community and cultural context over generations. IK is a powerful asset that the global poor communities can use to uplift their life; as such, it needs to be protected ([Nkwanyana, 2018](#)). Owing to the demand and value of IK, most communities and individuals have continued to pass this knowledge down from one generation to the next informally, as most of this knowledge is held by local and tribal communities without systematic documentation. As a result, it is vulnerable to loss and misappropriation over time ([Bandyopadhyay and Bandyopadhyay, 2018](#)). It is, therefore, upon respective communities to preserve, conserve and pass it over to the next generation. As such, the host community has legitimate rights to control access and use in any way, including restricting others' access to knowledge or information from their unique cultural histories, expressions, practices and contexts, towards creating a better society.

IK is considered unique traditional practices, cultural expressions and wisdom associated with specific communities and holds immense cultural and economic value ([Property, 2015](#)). It is significant in addressing contemporary challenges such as climate change, diseases, food security, conflict resolution and many others ([Jahed Armaghani et al., 2020](#)). The [World Health Organization \(2002\)](#) observes that 80% of the world population depends on traditional medicine for their health needs. IK has shaped and informed African thinking on art, music, religion, theology, governance, justice, health and agriculture ([Balogun and Kalusopa, 2021](#)). As such, it shows why IK should be valued and protected for the host communities to benefit from it and any effort to commercialise IK. According to [Chepchirchir et al. \(2019\)](#), IK has gained popularity in socio-economic development, as seen by the rise in interest among scholars, philanthropists and researchers. However, due to the uniqueness associated with IK, which is neither written nor stored in community libraries, various agents and organisations are taking advantage of these scenarios and obtaining IK

from local communities for their selfish interests without adequately compensating the real owners of the IK (Mbah *et al.*, 2021).

Recently, there has been increased pressure and demand to commercialise IK because of its immense economic and intrinsic value. According to Mdhluli *et al.* (2021), in the wake of the 21st century, we are witnessing many commercial entities and academic and cultural institutions getting involved in harvesting, managing, preserving and sharing IK, mainly for commercialisation and preservation. Consequently, there is a need to ensure that the custodians of IK (the community) are economically compensated and recognised by those who intend to use their IK. There is a need to have an excellent legal framework to guide the process to ensure that commercialisation does not disadvantage the host communities. When IK is exploited or commercialised, the framework attempts to ensure equitable benefit-sharing by developing systems for just remuneration, royalties and other types of rewards. Additionally, it addresses the problems of appropriation, cultural deterioration and unfair treatment that indigenous communities have long suffered while respecting their rights, aspirations and knowledge systems. Even though many nations recognise and value the importance of IK in Africa, only a few legal and policy instruments of African continental and regional economic cooperation make direct, if any, allusions to IK as expected by the Nagoya Protocol (Oguamanam, 2023).

### **The legal framework associated with indigenous knowledge**

Because of the value of IK, several legal frameworks comprising international treaties, regional and in-country legislations and systems have been put in place to promote the fair use of IK. The legal framework is often rooted in international obligations and human rights and, as such, offers safeguards to protect IK against unethical or unlawful usage. Today, different nations and regions have other IK legal frameworks.

Globally, bodies like The World Intellectual Property Organization (WIPO), United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), and United Nations Permanent Forum on Indigenous Issues have been at the forefront in working with governments, indigenous communities, to protect IK and promote its commercialisation while safeguarding the rights and well-being of host communities. The necessity of preserving IK and ensuring just and equitable benefit sharing has been underlined by treaties such as the Convention on Biological Diversity (CBD) (1992), the [Convention on Biological Diversity \(2010\)](#), The UNDRIP (2000; 2007), The WIPO Berne Convention (1886), Traditional Knowledge and Intellectual Property (2016) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) policy on engaging with indigenous peoples (2017). Of all the treaties signed, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the CBD (2010) is the primary document that provides a framework for the commercialisation of IK. Protocol provides for the fair and equitable sharing of the benefits of using genetic resources. It places local communities at the centre of managing their traditional knowledge and genetic resources. Further, it provides that communities have inalienable rights to these resources and must ensure that they are conserved, preserved, protected and used in a sustainable manner (Nagoya Protocol on ABS (2010)).

Despite the availability of the Nagoya Protocol and other treaties, they are all too generic and inappropriate for commercialisation in specific countries. As such, there is a need to domesticate in particular regions and countries. As such, continental or regional blocs have also provided guidelines to their member countries on how the IK should be protected. For example, the European Union (EU) (2013) passed a bill protecting the intellectual property rights of indigenous communities by ensuring that companies respect indigenous stewardship over natural resources and traditional knowledge about their uses. Africa, a

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continent with a rich heritage of “Indigenous” or “traditional” knowledge, now acknowledges that IK is the springboard for genuine African invention and creativity. However, despite the presumed significance, Africa has failed to exploit the rich IK. Further, no proactive promotion of IK internationally and binding treaties has been promoted. This is because colonialists have entrenched contempt for IK, and there is no adequate legal framework to protect and promote the use of entrenched contempt for IK systems (Oguamanam, 2023). There is a need for Individual countries to establish legal frameworks that respect indigenous rights, foster economic opportunities, support cultural practices, provide a foundation for cooperation preservation and support sustainable development.

African countries, in their national and regional capacities, recognise the central role of IK in the socio-cultural and economic development of the continent. This is evident through the many treaties and legal instruments developed to champion the protection and safeguarding of IK over the past several decades. As such, several instruments are under the auspices of the African Union and select regional economic blocks directly or indirectly relevant to IK (Oguamanam 2023). Some of the notable regional instruments include the following:

- [African Regional Intellectual Property Organization \(1976\)](#): It provides a framework for the protection, documentation and preservation of traditional knowledge and expressions of folklore, considering the rights and interests of indigenous communities.
- [The Economic Community of West African States \(ECOWAS\) \(1987\)](#) aims to foster a sense of cultural identity within a unified community through cultural exchange and culture-inclusive collaboration in a range of fields, including education, training, science, technology, research, communication, cultural exchange, tourism, production and creativity among members.
- The [African Union \(2006\)](#) urges all African states to commit to fostering mutual understanding among nations, opposing all forms of cultural discrimination in Africa and defending minorities, their cultures, their rights and their fundamental freedoms.
- The [African Union \(2008\)](#) advocates for the recognition and integration of traditional medicine into the health systems of African countries.
- The [African Union \(2015\)](#): The agenda recognises the importance of African cultural heritage, traditional values and knowledge systems in shaping the socio-economic transformation of the African continent over the next 50 years

To operationalise the international and regional treaties and instruments, individual countries need to develop national frameworks that recognise, promote and integrate IK with the national development agenda such as science, education, health and agriculture (Nagoya Protocol on ABS 2010). Indeed, many African countries’ constitutions recognise and protect the rights of indigenous communities, including their cultural heritage and IK. Additionally, as shown in [Table 1](#), several of these nations have created additional laws and regulations to put into practice the aspirations outlined in their constitutions. In Kenya, the two significant legislations that govern IK are which establishes the National Museums of Kenya (NMK) State Corporation institution that collects, preserve, study, document and present Kenya’s past and present cultural and natural heritage; and [The Protection of Traditional Knowledge and Cultural Expressions \(2016\)](#) that seeks to protect all traditional knowledge and cultural expression in the country. According to [Oguamanam \(2023\)](#), these

Country	Legal instrument and the year they were adopted
Kenya	Copyright Act (2001), Industrial Property Act (2001), Constitution of Kenya (2010), Protection of Traditional Knowledge and Cultural Expressions Act (2016)
South Africa	The Medicines and Related Substances Act (1965), the Copyright Act (1978), the Constitution of South Africa (1996), the National Heritage Resources Act (1999), The National Environmental Management: Biodiversity Act (2004), Traditional Knowledge and Intellectual Property Rights Act (TKIP) (2013)
Nigeria	Nigerian Copyright Act (1990). National Environmental Standards and Regulations Enforcement Agency (NESREA) Act (2007)
Ethiopia	Ethiopian Constitution (1995), Copyright and Neighboring Rights Protection Proclamation (2004), Traditional Medicine and Medicinal Plants Research, Conservation, and Regulation Proclamation (2015), Cultural Heritage Conservation Proclamation (2016)
Egypt	Traditional Crafts and Industries Protection Law (1966), Intellectual Property Protection in Egypt (2002), National Cultural Heritage Law (1983)

**Table 1.**  
Legal instruments  
adopted in some  
African countries  
that protect and  
govern the use of IK

**Source:** Table by the authors

legal and policy instruments are still insufficient in most African countries, thus making the process of commercialisation of IK difficult in most countries.

### The commercialization of indigenous knowledge

Indigenous communities worldwide have long possessed valuable knowledge and practices that have sustained them for generations. Such value includes cures for diseases and ailments, cultural identity, climate change adaptation, education, sustainable management of resources, food security, spiritual healing and a means of self-governance, among others ([United Nations Declaration on the Rights of Indigenous Peoples, 2007](#)). Because of these values, some of the IK has been appropriated and exploited commercially. In most cases, the commercialisation of this knowledge has often been driven by forces outside the community and has always resulted in inequitable outcomes for indigenous peoples. For example, many giant multinational drug manufacturing companies have been able to continuously exploit IK without compensation to the knowledge originators, disregard the cultural values and even fail to acknowledge the actual owners of this knowledge.

In more recent times, different countries have started recognising the need for the host communities to benefit from their IK; as such, they have put legal frameworks that respect the rights and interests of indigenous communities in commercialisation. According to [Shrivastav \(2014\)](#), the commercialisation of IK continues to be a highly debatable topic in the international and national scenario precisely because the global community has been unsuccessful in establishing a uniform and harmonic framework to protect and commercialise IK. Owing to this gap, some individual countries have had to develop frameworks that promote the commercialisation of IK in a way that respects the rights and interests of indigenous communities; for example, India has built several legal frameworks and institutions. To safeguard and monetise its extensive traditional knowledge, which includes Ayurveda, yoga and traditional medicine. Further, through licensing and collaborations with the business sector, the Indian Government has also created measures to encourage commercialising traditional knowledge ([Bandyopadhyay and Bandyopadhyay, 2018](#)).

In Africa, notable progress in legislation on the commercialisation of IK is seen in South Africa compared with other African countries ([Resenga Maluleka and Ngulube, 2019](#)).

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According to [Balogun and Kalusopa \(2021\)](#), the South African Government has established the National Indigenous Knowledge Systems Office that facilitates partnerships between traditional knowledge holders and commercial entities, aiming to ensure equitable benefit-sharing and promote the commercialisation of IK. This framework ensures that indigenous communities receive fair compensation and benefits from commercialising their knowledge. Further, The Protection, Promotion, Development and Management of Indigenous Knowledge Systems Act (26 of 2003) provides a framework that protects IK from misappropriation and unauthorised use in South Africa.

In Kenya, efforts are being made to document, protect and ensure that host communities benefit from the commercialisation of the IK. The NMK and other partners like the county government and different communities are working through the Natural Products Initiative (NPI), a Vision 2030 flagship programme towards commercialising IK-associated products such as the African indigenous vegetables, Aloe products and *Abrus precatorius* (*Mturi turi*) seed a natural birth control method ([Ahmed et al., 2023](#); [Maundu et al., 2023](#)).

Despite the efforts and progress towards the commercialisation of IK, there is evidence that some of the products and services are being exploited without much evidence of how host communities benefit. For example, the *ciondo* basket in Kenya has been sold worldwide for years but not patented by the Agiguyu community of Kenya; harvesting of *Maytenus Buchananii* in Shimba hills by the National Cancer Institute (NCI) of the USA without the consent or acknowledgement of the Digo, the worldwide use of traditional Masai shuka, by fashion houses without benefiting the community ([Mastamet-Mason et al., 2017](#)). This could be attributed to gaps in Kenya's legal framework for intellectual property commercialisation. A survey conducted by [Chepchirchir et al. \(2019\)](#), discovered that existing legislation is limited and insufficient to enable communities to benefit from the IK they possess. This paper looks at the existing legislation that safeguards and protects IK in Kenya and the place accorded to the commercialisation process, if any.

### Context of the study

According to the [Kenya National Bureau of Statistics \(2020\)](#), Kenya has 44 tribes subdivided into distinct sub-tribes or communities, each with a vast volume of rich IK. Kenya prides itself in a rich cultural and natural heritage reflected in the enormous IK information of culture, religion, education, health, artefacts and music, among others, rooted in the many tribes and communities in the country and the vast biodiversity found within its borders ([Ogada et al., 2021](#)). For these reasons, an elaborate legal framework is required to guide Kenya's commercialising process of diverse IK products and services. To illustrate the value and attention of the IK and National Heritage, the NMK was established in 1910 by the then East Africa and Uganda Natural History Society and has evolved and expanded to the current NMK, which is various offices and protected sites across the country. Since its inception, the NMK has played a significant role in preserving and promoting Kenya's cultural and natural heritage. Currently, NMK is working with the Ministry of Tourism, Wildlife and Heritage, in partnership with the County governments, state agencies and indigenous peoples and local communities through the NPI in a project called Indigenous Knowledge Documentation and Digitization (IK DoDi). The project seeks to document all IK to protect, promote and facilitate value addition in all IK assets from communities in the country. The project is part of the government's efforts to implement Kenya's "Protection of Traditional Knowledge and Cultural Expressions Act 2016" ([Taracha et al., 2023](#)). Kenyans place high importance on IK, as indigenous goods and services are used or consumed in practically every home. Because of the attached value, the government has enacted several laws and policies to document, protect and promote IK in Kenya. Despite the progress made

to verify and protect IK in Kenya, [Chepchirchir \*et al.\* \(2019\)](#) established that there is limited legislation that encourages the preservation of the IK for the benefit of individual holders, communities and society but falls short in protecting the same from exploitation by commercial entities. This forms the basis to highlight, analyse and discuss the various legal issues that affect the commercialisation of IK in Kenya, intending to identify the challenges and opportunities.

### **Statement of the problem**

Although globalisation is construed to have created a global village, it has also brought some threats, challenges and hindrances to various communities worldwide. One such challenge is the intentional and unintentional exploitation of IK among communities in multiple countries worldwide. IK, considered unique among various communities, is exploited by national and multinational organisations at the expense of poor communities. This trend is gaining momentum, and as such, it needs to be curbed by establishing an excellent legal framework for the commercialisation of IK. Recently, national and multinational organisations' tendency to exploit IK gained momentum globally at the expense of poor host communities. The commercialisation of IK in Kenya, like in many other countries, presents a complex and multifaceted challenge due to the lack of a comprehensive and well-defined legal framework. In Kenya, despite the protection of IK in [The Government of the Republic of Kenya \(2010\)](#) and other legislations, the commercialisation process has several concerns regarding the safety, ownership and fair benefit sharing of IK when commercialised. The lack of a robust legal framework leaves indigenous communities vulnerable to misappropriation, exploitation and inadequate compensation. To ensure that the rights and interests of the custodian communities are acknowledged, respected and compensated for, the current legal framework must be urgently examined to identify the gaps, challenges and opportunities for equitable and sustainable commercialisation of IK in Kenya. Further, there is little literature on this area, and this study hopes to contribute to developing more literature.

### **Aim of the study**

This study aims to contribute to developing an inclusive and comprehensive legal framework that ensures the protection, preservation and fair benefit sharing of IK in Kenya's commercialisation endeavours.

### **Objectives**

- to establish the legal framework for commercialising IK in Kenya; and
- to analyse the opportunities and factors impeding or affecting the commercialisation of IK in Kenya.

### **Design/methodology/approach**

This research was largely qualitative because the researcher sought to identify opportunities and obstacles by analysing Kenya's current legislative framework. The study adopted the exploratory design method. [Patton \(2014\)](#) argues that using exploratory design in qualitative research is fundamental to generalising new knowledge and understanding. [Creswell \(2013\)](#) alludes that exploratory designs are used when venturing into uncharted territory to provide the groundwork for future study and help provide fresh perspectives by looking at a specific occurrence from many aspects. They enable researchers to examine

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several viewpoints, gather various data and produce novel discoveries or conceptual frameworks. Exploratory design methods were the most appropriate for this study, as the commercialisation of IK in Kenya has not been widely studied and researched. Data obtained from this study was analysed by using a content analysis research approach. Content analysis was used to investigate the chosen legal documents to get insight into the country's legislative framework for managing IK and develop conclusions. Using the study objectives, the researcher identified the legal instruments with the necessary provisions for the management and possible commercialisation of IK. An extensive literature analysis of Kenya's existing laws, regulations and policies related to intellectual property, cultural heritage, traditional knowledge, biodiversity and economic development was analysed to identify gaps, inconsistencies, challenges and opportunities for the commercialisation of IK. The 2010 Kenyan Constitution and three Acts of Parliament were identified as the key legal instruments that have implications for the commercialisation of IK and were purposely selected and analysed. The analysis was then carried out inductively to identify the challenges and opportunities of commercialising IK in Kenya guided by best practices from existing laws and other international legal frameworks.

### Findings

The study established that the Government of Kenya has put in place various legal instruments and institutions to guide the commercialisation and use of IK; for example, [The Constitution of Kenya \(2010\)](#), the Act to Protect Traditional Knowledge and Cultural Expression (2016) and [The National Museum and Heritage Act \(2009\)](#). In Kenya, three prominent legal instruments guide the handling and protection of the IK: [The Constitution of Kenya \(2010\)](#); [The Protection of Traditional Knowledge and Cultural Expressions \(2016\)](#); and [The National Museum and Heritage Act](#). The researcher also identified other pieces of legislation with provisions likely to impact the commercialisation of IK, such as [The Science, Technology and Innovation Act \(2013\)](#).

### The Constitution of Kenya, 2010

The Kenya Constitution (2010) sets forth several provisions that recognise, protect the IK and guarantee the community ownership and benefits accrued from the IK. Some of the provisions that have a direct or Indirect clauses on IK include:

Article 11 declares culture to be the “foundation of the nation” and “promotes all forms of national and cultural expression through literature, the arts, traditional celebrations, science, communication, information, mass media, publications, libraries, and other forms of cultural heritage.” The article also supports the “intellectual property rights of the people of Kenya” and recognises “the importance of science and indigenous technology in the nation's growth.” The article states that Parliament must pass legislation to “recognise and protect the ownership of indigenous seeds and plant varieties, their genetic and diverse characteristics, and their use by Kenyan communities,” as well as “ensure that communities receive compensation or royalties for the use of their cultures and cultural heritage”.

Article 40. (1) Subject to Article 65, every person has the right, either individually or in association with others, to acquire and own property and thus (2) Parliament is restricted to enact laws that permit the State or any person— (a) to arbitrarily deprive a person of property of any description or any interest in, or right over, any property of any description; or (b) to limit, or in any way restrict the enjoyment of any right under this Article based on any of the grounds specified or contemplated in Article 27 (4).



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Concerning the environment and indigenous Knowledge, Article 69 (a) ensures equitable sharing of the benefits from sustainable exploitation, use, management, and conservation of the environment and natural resources; and (c) protects and advances indigenous knowledge and intellectual property rights in biodiversity and community genetic resources. (e) Protect genetic resources and biological diversity; (h) Utilize the environment and natural resources to benefit the people of Kenya.

### **Acts of Parliament specific for documentation and protection of indigenous knowledge**

In order to operationalise the IK clauses in the Constitution 2010, the Kenyan Parliament has passed several of Acts of Parliament,

#### **The Protection of Traditional Knowledge and Cultural Expressions Act, 2016 (PTKCE Act 2016)**

The PTKCE Act of 2016 was passed to provide a framework for protecting and promoting traditional knowledge and cultural expressions, as envisioned in Articles 11, 40 and 69 of the 2010 Constitution of Kenya. The PTKCE Act 2016 aimed to give communities the power to regulate the use of knowledge and expressions that are economically and culturally relevant. It accomplishes this by establishing a collectively owned intellectual property right (IPR) that the community can enjoy. As a result, the community has a right to gain from the commercialisation of IK. According to the Act, community IPRs are created jointly and transferred from generation to generation.

#### **The National Museum and Heritage Act of 2009**

Since the inception of The National Museums of Kenya (NMK) in 1910, several legislation pieces and policy documents have been developed to guide its operation. The current NMK was established by the Museums and Heritage Act 2006 and revised in 2012. This Act of parliament consolidates the law relating to national museums and heritage; provides for the establishment, control, management and development of national museums and the identification, protection, conservation and transmission of the cultural and natural heritage of Kenya; repeals the Antiquities and Monuments Act (Cap. 215) and the National Museums Act; and for connected purposes According to this Act, NMK is mandated to collect, preserve, research, document and present Kenya's past and present cultural and natural heritage. The National Museums and Heritage Act of 2009 provides for the gazettelement and protection of traditional cities. The Act requires a third party to seek permission from the NMK before accessing Indigenous Knowledge. However, this only applies if the Indigenous Knowledge is recognised and registered by the NMK. Thus, even if a third party uses the community's unregistered IK, there are no legal ramifications.

#### **Other Acts of Parliaments with Clauses on indigenous knowledge**

[The Seeds and Plant Varieties ACT \(2015\)](#) acknowledges that indigenous seeds exist in the country and should be protected. The ACT recognises the need for additional legislation to identify and protect the indigenous seed and plant variety ownership, genetic and diverse characteristics used by Kenyan communities, and equitable sharing of the resulting benefits.

The Forest Conservation and Management ACT No. 34 of 2016 contains several provisions that recognise the importance of IK. '4 (e) Protection of indigenous knowledge and intellectual property rights in forest resources; and 25 (2) (b) protection and conservation of all indigenous forests in public forests,' for example. Furthermore, the ACT provides for the management and protection of indigenous forests through the following article: (1) All indigenous forests and woodlands shall be managed on a sustainable basis for the following purposes: (a) conservation of water, soil, and biodiversity; (b) riparian and shoreline protection; (c) cultural use and heritage; (d) recreation and tourism; (e) sustainable production of wood and non-wood products; (f) carbon sequestration

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and other environmental services; (g) education (h) habitat for wildlife in terrestrial forests and fisheries in mangrove forests.

[The Science, Technology, and Innovation ACT \(2013\)](#) acknowledges that innovation can be informed of indigenous or traditional knowledge by a community of beneficial properties of land, natural resources, including plant and animal resources, and the environment. The ACT established the National Commission for Science, Technology, and Innovation (NACOSTI), The National Research Fund, and the National Innovation Agency. Even though IK is huge and complex, little emphasis has been paid to it.

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## **Discussions**

The commercialisation of IK presents both opportunities and challenges. Based on the legislation pieces available in the country, there is no doubt that the value of IK is appreciated and desired to benefit their host communities. However, much is yet to be done to enable the commercialisation of more IK and ensure that the community benefits. The following are some potential benefits and obstacles to the commercialisation of IK in Kenya:

### **Opportunities in the legal framework for the commercialisation of indigenous knowledge**

#### *Devolution of indigenous knowledge function*

According to the Fourth Schedule of Kenya's Constitution (2010), managing arts and culture is a devolved function in Kenya. Further, the schedule mandates the county governments to handle some tasks that greatly benefit IK. For example, agriculture, health services, the environment, culture, transportation, animal control and welfare, trade and education. County governments in Kenya are semiautonomous administrative units that create and enforce local laws, collect and manage revenue and run devolved functions such as agriculture, culture and health. As most counties have a few communities from the same or related tribes, it is easy to map out the IK in different communities. This makes commercialising and sharing benefits with the communities through respective countries easier.

According to [Kenyalaw.org \(2023\)](#), no county legislation on IK is listed in the database. This implies that counties have yet to have progressive legislation supporting the commercialisation of IK within their counties. Despite the lack of legislation frameworks, there is evidence that most county governments have held successful cultural festivals that bring together various ethnic communities to showcase and celebrate their cultural traditions, music, dance, crafts and cuisine. Some, like Makueni, have specific initiatives such as the Makueni Handicrafts Cooperative Society and Dorcus Beads that enable the community to commercialise their handicrafts and beads, respectively. Management of IK through county government is an opportunity to easily involve established community technical committees in the management and sharing benefits as envisioned in the Nagoya protocol. The fact that most counties have few predominant tribes or communities with common IK assets makes it much easier to map, document, preserve and share royalties from commercialisation.

### **Laws that support and promote the use of indigenous knowledge in the country**

Despite the devolution of arts and culture, IK remains of interest to the national and county governments. At the national level, IK is considered a valuable resource for Kenya's economic development and cultural heritage (Constitution of Kenya 2010). As such, there are

several pieces of legislation at the national levels that support the management of arts and culture: Ministry of Sports, Culture and Heritage; [The National Policy on Culture and Heritage \(2019\)](#); The National Museums and Heritage ACT (2006); [The Copyright and Intellectual Property Protection \(2001\)](#) (revised in 2019) among others. The Constitution (2010) affirms the rights of communities to own their ancestral lands and practice their culture. It guarantees their right to access and control their cultural and intellectual property. To operationalise the provisions of the Constitution on IK, there are other laws such as and. This law provides an excellent opportunity for the countries to develop a working framework that would support the commercialisation of IK. For example, recognises IK as vital to the country's cultural diversity. It emphasises the need to protect, promote and support traditional knowledge holders. At the same time, establishes mechanisms for the registration and documentation of traditional knowledge and the fair and equitable sharing of benefits derived from its use. The fact that Kenya has several legislations on IK gives the country an advantage over many other countries yet to legislate on the IK.

### **The National Museum of Kenya**

The existence of the NMK as a state cooperation despite the devolvement of the IK function is a welcome move towards commercialisation. The national government ensures a more stable and consistent source crucial for documenting, preserving and promoting Kenya's IK information on cultural heritage. This prevents fragmentation of efforts and promotes a unified approach in commercialising the IK assets; a centrally managed national museum focuses on the whole country and thus facilitates the diversity of its history, culture and heritage. Further, it facilitates international collaborations, exchanges and partnerships, making learning best practices from other countries easy. As the museum has existed for over 100 years, the NMK has a rich pool of expertise in museum management, curation and preservation of IK. This guarantees better conservation of valuable artefacts and possible commercialisation efforts.

According to Kenya's National Museums and Heritage ACT (2006), The NMK is mandated to collect, curate, preserve, research, conserve and restore cultural and natural heritage objects. NMK has documented and maintained many cultural heritage sites per this mandate. According to [Taracha \*et al.\* \(2023\)](#), the government is in the process of establishing an Indigenous Knowledge Innovation Bank (DoDi project) that seeks to document IK assets in the country. The vast volume of documented IK at the NMK facilitates protecting, promoting and commercialising IK in Kenya.

### **Existing frameworks and best practices for commercialising indigenous knowledge**

Several frameworks and best practices have been developed at the international level and in particular nations, although no frameworks are universally acknowledged for commercialising IK. For example: The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits arising from their Utilisation which has been fronted as the most practical formula for Fair and Equitable Sharing of Benefits derived from Genetic Resources and Traditional Knowledge ([Silvestri, and Mason, 2023](#)); other notable best practices used in countries like India, Japan, Brazil, South Africa and Morocco include; a comprehensive legal framework to protect and promote traditional knowledge, The Traditional Knowledge Labels and Certifications that promote and distinguish products derived from conventional knowledge; Traditional Knowledge Digital Libraries that archives all traditional knowledge and makes them accessible to patent examiners to

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helps protect traditional knowledge from misappropriation while allowing for its commercialisation under fair terms; Community-based Intellectual Property Rights that recognise the collective ownership and customary laws governing traditional knowledge within indigenous communities; and the Government support of IK through Initiatives like the National Medicinal Plants Board, National Biodiversity Authority and National Innovation Foundation among others (Macpherson *et al.* 2021; Mozini, 2022. Suriyaprakash, 2021). Kenya needs a multi-stakeholder approach that includes different stakeholders such as government agencies, indigenous and local communities and civil society to have a workable framework that promotes the commercialisation of IK. Additionally, institutions must be created that support the usage of IK and various legal instruments. Benchmarking on pre-existing frameworks and best practices enables a rapidly organised and systematic approach, allows for learning from others by avoiding common mistakes and helps businesses acquire a competitive edge.

### **Factors impeding or affecting the commercialisation of indigenous knowledge in Kenya**

The proliferation of commercialisation of IK in Kenya is on the rise; however, it is being done at the expense of ignorant communities. As such, it needs to be regulated and appropriate measures considered. This paper notes that if the commercialisation of IK in Kenya is not adequately addressed, it will likely hinder the development of future knowledge and innovation. Some of the hindering factors affecting commercialisation in Kenya are;

### **Inadequate legislation that supports the commercialisation of indigenous knowledge**

Despite the constitution's incorporation of IK provisions and many Parliamentary Acts, including the Protection of Traditional Knowledge, Genetic Resources, Folklore, and Witchcraft ACT (2006) and. There are still gaps in the law for effective commercialisation to happen. As acknowledged by the constitution (2010) and several aspects of IK and the commercialisation process, even though laws governing the protection of intellectual property are included in the Kenyan Constitution (2010), the Copyright ACT of (2001) and the Industrial Property ACT (2001), the legislation does not adequately protect IK that exists in collective or communal forms. Other notable gaps in the existing laws include inadequate provisions for fair and equitable benefit-sharing between indigenous communities and commercial entities, the absence of standardised contracts or guidelines for commercialisation agreements and the lack of sustainability of IK due to the high erosion of culture. Indigenous groups could be reluctant to engage in commercialisation if they lack sufficient legal recognition and protection because of the possibility of misappropriation or exploitation.

Additionally, some laws outlaw IK or portray it negatively. For example, during the independence struggles in Africa, IK was maligned, branded by various laws and demonised by colonial forces and dominant religions. Out of prejudice, IK was portrayed as primitive, pagan, harmful and connected to dark powers. As such, colonial governments branded it as "witch-doctoring" and "superstitious" ignoring both its effectiveness and the significant cultural and spiritual significance it carried for indigenous people (Burgess *et al.*, 2022). This created a negative perception and apathy among the community. For example, according to Kwanya (2020), even though the 2010 Constitution removed the Witchcraft ACT of Kenya (1925), it had a detrimental effect on the acceptance and use of IK in the country.

Without adequate legislation, indigenous communities may face difficulties asserting ownership, negotiating fair benefit-sharing agreements and preventing unauthorised commercial exploitation of their knowledge. Further, inadequate legislation and lack of supportive regulations or discriminatory practices may create barriers that prevent entrepreneurs from entering traditional markets or accessing distribution networks for indigenous products and services. A nation must have specific laws and policies that protect IK and provide mechanisms for communal ownership and control by indigenous communities even though some international instruments, such as the UNDRIP, already emphasise the need to protect, control and maintain cultural heritage and traditional knowledge. According to Chepchirchir and Kwanya (2019), there is a need to legislate on how IK can be transferred and shared within and outside the host communities and a need for legislation that protects and promotes the commonality of IK. Therefore, developing and implementing comprehensive legislative frameworks that recognise and safeguard IK must address these deficiencies. Intellectual property rights, ownership, benefit-sharing, market access, contract protections, enforcement procedures and sustainability issues should all be covered by such laws. The development of the legal system should be done through inclusive and participatory processes that include indigenous people, legal experts, policymakers and other pertinent stakeholders if we want to ensure that it actively promotes and supports the ethical commercialisation of IK.

### **Undocumented indigenous knowledge**

By nature of IK, significant portions remain undocumented or under-documented in Kenya, like in many other countries (Chepchirchir *et al.*, 2019; Balogun and Kalusopa, 2021). This is because many aspects of IK are transmitted orally and exist within the cultural practices and traditions of given communities. Most of the time, knowledge is kept secret and is intertwined with other community or family cultures, values and beliefs. Usually, it is done by people with technical and social skills. It is generally considered taboo to share. As a result, it can only be passed down through word-of-mouth from one generation to the next; this means that it is in many ways endangered as its custodians die out, and those who remain have no point of reference. This makes it extremely difficult for the government and authorities to map and protect the country's IK. As a result, most IK gets corrupted or lost before it is passed on to future generations alarmingly because of its tacit nature, as it is stored in people's memories (Ocholla, 2007; Nakamura and Kanemasu, 2020). Other factors that hinder documentation include limited resources, language barriers, cultural sensitivities and the dynamic nature of oral traditions.

Lindh and Haider (2010) acknowledge that despite the need and ongoing efforts to preserve IK, it is nearly impossible to document and hold all of it. As there are more than 40 tribes and 500 subtribes in Kenya, each with a strong IK at the community and family levels, it is impossible to catalogue every IK connected to all Kenyan communities. Further, it is also difficult to single out and focus on a few because what appears to be less valuable today may be very valuable tomorrow. Proper documentation is crucial for showcasing the value, uniqueness and marketability of IK to potential investors or business partners. There is a need for resources and legislation that prioritises the involvement and empowerment of indigenous communities, respects cultural protocols and fosters collaboration between different knowledge systems for sustainable development and cultural heritage preservation.

### Ownership of indigenous knowledge

IK is widely considered communal and collectively owned by the host communities due to the interconnectedness of IK with the community's identity, values and way of life. The collective rights and control over the IK, cultural expressions and intellectual property that are deeply ingrained in the customs, beliefs, know-how, customs, innovations and cultural heritage that are and are passed down through oral tradition, rituals and social practices to generations within communities (Porsanger, and Virtanen, 2019). As such, no person can claim sole ownership of the knowledge as the IK proceeds; any commercialisation should benefit the community. In many jurisdictions, the law rarely acknowledges the community ownership nature of IK (Fast, and Collin-Vézina, 2010). This is because communities can range in size from remote rural areas to city suburbs, and making decisions about consent and benefit-sharing can be difficult. Further, because of migration and inter-community interactions, defining the boundaries of specific communities can be challenging at times. In addition, the country has no formal entities with registered members identified as communities.

Owing to the amorphous nature of community existence, there is not always someone to take the initiative to register, protect and ensure that IK benefits the community. The lack of legal community ownership rights hinders the protection of indigenous knowledge from exploitation and the subsequent failure to compensate. As such, third parties can easily exploit the IK without any legal obligation to repay and acknowledge the community, as there is no legally identifiable owner. Many indigenous groups have struggled to defend and exercise their rights to traditional knowledge; their knowledge has been misused, exploited or used without their knowledge, consent or recompense (Jerez, 2021).

At the community level, creating a saleable item necessitates individual effort. For example, making *ciondo* baskets and soapstone artwork is prevalent among the Kikuyu and Kisii communities. However, making the basket or sculpture takes an individual's effort. When many people produce items to be sold, those who participate seek exclusive control of their wares, resulting in inter-ethnic competition. As a result, rewarding a community for an individual effort is nearly impossible. Some communities, such as Somalis, Maasai and Kuria, cross the country's borders. This means that the IK these communities share is transnational, and thus, benefits should be distributed equitably. Cross-border cooperation and enforcement should be possible with the commercialisation framework. If not handled properly, this can easily lead to international disputes.

### Conclusions

Commercialising IK in Kenya is a complicated and multifaceted problem that necessitates careful examination of numerous legal and cultural issues. Even though IK is a devolved function, this qualitative review established that the existing legal framework is insufficient, as many counties have yet to legislate or fully support the process. As such, the host communities are still vulnerable to exploitation. Commercialising IK in Kenya requires urgent attention and a comprehensive legal framework that aligns with international protection standards for traditional knowledge. There is a need for legislation that not only recognises and respects the rights of indigenous communities but also promotes a fair and equitable sharing of benefits derived from the commercialisation of their knowledge

### Recommendations

- All the IK in the country should be identified, documented and protected as envisioned by the PTKCE ACT No. 33 of 2016. The county governments should take a central role in documenting and protecting IK in their jurisdiction, which is

well protected and accountable, as they are closer to all communities' tribes and ethnic groups.

- There is a need for more legislation and policy documents to operationalise the PTKCE ACT, which seeks to “ensure that communities receive compensation or royalties for the use of their cultures and cultural heritage” and to “recognise and protect the ownership of indigenous seeds and plant varieties, their genetic and diverse characteristics, and their use by Kenyan communities”.
- There is need to establish new and strengthen institutions focused on IK at the national and county levels. These bodies should strive to educate and inform all citizens about the role and value of IK Determine projects or avenues through which host communities can benefit from the proceeds of commercialised IK.

## References

- African Regional Intellectual Property Organization (1976), “Lusaka agreement on the creation of the African Regional Intellectual Property Organization (ARIPO)”, available at: [www.wipo.int/wipolex/en/treaties/details/202](http://www.wipo.int/wipolex/en/treaties/details/202)
- African Union (2006), “The African charter for African cultural renaissance”, available at: <https://au.int/en/treaties/charter-african-cultural-renaissance>
- African Union (2008), “The Maputo declaration on the contribution of traditional medicine to health and development in Africa”, available at: <https://cdn.who.int/>
- African Union (2015), “Agenda 2063: the Africa we want”, available at: <https://au.int/en/agenda2063/overview>
- Ahmed, H., Obiero, J., Chai, D., Nyachio, A. and Taracha, E. (2023), “A study to provide proof-of-concept on the potential of Arbus precatorius seed as a natural contraceptive in the olive baboon (*Papio anubis*) model”, *The 3rd International Conference on Information and Knowledge Management*, 2nd–6th October 2023. Technical University of Kenya. Nairobi.
- Balogun, T. and Kalusopa, T. (2021), “A framework for digital preservation of indigenous knowledge system (IKS) in repositories in South Africa”, *Records Management Journal*, Vol. 31 No. 2, pp. 176-196.
- Bandyopadhyay, D. and Bandyopadhyay, D. (2018), “Protection of traditional knowledge and indigenous knowledge”, *Securing Our Natural Wealth: A Policy Agenda for Sustainable Development in India and Its Neighboring Countries*, pp. 59-70.
- Burgess, C., Bishop, M. and Lowe, K. (2022), “Decolonising indigenous education: the case for cultural mentoring in supporting indigenous knowledge reproduction”, *Discourse: Studies in the Cultural Politics of Education*, Vol. 43 No. 1, pp. 1-14.
- Chepchirchir, S., Kwanya, T. and Kamau, A. (2019), “Maximising the socio-economic value of indigenous knowledge through policies and legislation in Kenya”, *Global Knowledge, Memory and Communication*, Vol. 68 Nos 1/2, pp. 60-75.
- Convention on Biological Diversity (2010), “Nagoya protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization”, available at: [www.cbd.int/abs/about/](http://www.cbd.int/abs/about/)
- Creswell, J.W. (2013), “Steps in conducting a scholarly mixed methods study”.
- Fast, E. and Collin-Vézina, D. (2010), “Historical trauma, race-based trauma and resilience of indigenous peoples: a literature review”, *First Peoples Child & Family Review*, Vol. 5 No. 1, pp. 126-136.
- Ford, J.D., King, N., Galappaththi, E.K., Pearce, T., McDowell, G. and Harper, S.L. (2020), “The resilience of indigenous peoples to environmental change”, *One Earth*, Vol. 2 No. 6, pp. 532-543.

- 
- Government of the Republic of Kenya (2010), "The constitution of Kenya", Government of the Republic of Kenya, Nairobi.
- Jahed Armaghani, D., Asteris, P.G., Askarian, B., Hasanipanah, M., Tarinejad, R. and Huynh, V.V. (2020), "Examining hybrid and single SVM models with different kernels to predict rock brittleness", *Sustainability*, Vol. 12 No. 6, p. 2229.
- Kenya National Bureau of Statistics (2020), "2019 Kenya population and housing census (KPHC): Volume I – population by county and sub-county. Nairobi, Kenya", available at: [www.knbs.or.ke/2019-kenya-population-and-housing-census-reports/](http://www.knbs.or.ke/2019-kenya-population-and-housing-census-reports/)
- Kenyalaw.org (2023), "Kenya law: where legal information is public knowledge", available at: <http://www.kenyalaw.org/>
- Kwanya, T. (2015), "Indigenous knowledge and socioeconomic development: Indigenous tourism in Kenya", *Knowledge Management in Organisations: 10th International Conference, KMO 2015, Maribor, Slovenia, August 24-28, 2015, Proceedings 10*, Springer International Publishing, pp. 342-352.
- Kwanya, T. (2020), "The stigmatisation of indigenous knowledge: the case of night-running in Western Kenya", *Journal of Religion in Africa*, Vol. 48 No. 4, pp. 376-392.
- Lindh, K. and Haider, J. (2010), "Development and the documentation of indigenous knowledge: good intentions in bad company?".
- Macpherson, W.G., Tretiakov, A., Mika, J.P. and Felzensztein, C. (2021), "Indigenous entrepreneurship: insights from Chile and New Zealand", *Journal of Business Research*, Vol. 127, pp. 77-84.
- Mastamet-Mason, A., Müller, K. and van der Merwe, N. (2017), "History of African indigenous costumes and textiles: towards decolonising a fashion design curriculum", *DEFSA Contact Details*, Vol. 143.
- Maundu, P., Adeka, R., Kyaa, J., Kathare, S., Kariuki, P., Kavagi, P. and Taracha, E. (2023), "Road map to commercialisation of African leafy vegetables for nutrition, health and wealth in Kenya: a review", *The 3rd International Conference on Information and Knowledge Management (2nd–6th October 2023)*, Technical University of Kenya. Nairobi.
- Mbah, M., Ajaps, S. and Molthan-Hill, P. (2021), "A systematic review of the deployment of indigenous knowledge systems towards climate change adaptation in developing world contexts: Implications for climate change education", *Sustainability*, Vol. 13 No. 9, p. 4811.
- Mdhului, T.D., Mokgoatsana, S., Kugara, S.L. and Vuma, L. (2021), "Knowledge management: Preserving, managing and sharing indigenous knowledge through digital library", *HTS Teologiese Studies/Theological Studies*, Vol. 77 No. 2.
- Mozini, L.M. (2022), "Brazilian biodiversity law: challenges and opportunities for industries and research institutions", *Global Transformations in the Use of Biodiversity for Research and Development: Post Nagoya Protocol Implementation amid Unresolved and Arising Issues*, pp. 69-92.
- Nakamura, N. and Kanemasu, Y. (2020), "Traditional knowledge, social capital, and community response to a disaster: resilience of remote communities in Fiji after a severe climatic event", *Regional Environmental Change*, Vol. 20, pp. 1-14.
- Nakashima, D. (2010), "Indigenous knowledge in global policies and practice for education, science and culture", *Chief, Small Islands and Indigenous Knowledge Section, Natural Sciences Sector*.
- Nkwanyana, S.M. (2018), "Conserving cultural heritage and the usage of indigenous knowledge: a case study of the Zululand district municipality, Kwazulu-Natal", *African Journal of Hospitality, Tourism and Leisure*, Vol. 7 No. 2, pp. 1-12.
- Obiero, K.O., Klemet-N'Guessan, S., Migeni, A.Z. and Achieng, A.O. (2022), "Bridging indigenous and non-Indigenous knowledge systems and practices for sustainable management of aquatic resources from east to west Africa", *Journal of Great Lakes Research*, Vol. 49.



- Ocholla, D. (2007), "Marginalized knowledge: an agenda for indigenous knowledge development and integration with other forms of knowledge", *The International Review of Information Ethics*, Vol. 7, pp. 236-245.
- Ogada, M.J., Justus, O., Paul, M., Omondi, S.G., Juma, A.N., Taracha, E. and Ahmed, H. (2021), "Impact of covid-19 pandemic on African indigenous vegetable value chain in Kenya", *Agriculture and Food Security*, Vol. 10 No. 1, pp. 1-10.
- Oguamanam, C. (2023), "A critical examination of the African legal framework for indigenous knowledge", *Journal of African Law*, Vol. 67 No. 1, pp. 1-21.
- Patton, M.Q. (2014), *Qualitative Research and Evaluation Methods: Integrating Theory and Practice*, 4th ed., SAGE Publications.
- Porsanger, J. and Virtanen, P.K. (2019), "Introduction—a holistic approach to indigenous peoples' rights to cultural heritage", *AlterNative: An International Journal of Indigenous Peoples*, Vol. 15 No. 4, pp. 289-298.
- Property, W.I. (2015), "Genetic resources, traditional knowledge and traditional cultural expressions".
- Resenga Maluleka, J. and Ngulube, P. (2019), "Indigenous knowledge in Africa: a bibliometric analysis of publishing patterns", *Publishing Research Quarterly*, Vol. 35 No. 3, pp. 445-462.
- Shrivastav, V. (2014), "Protection of traditional knowledge within the existing framework of intellectual property rights: defensive and positive approach", available at SSRN: <https://ssrn.com/abstract=2463017> or doi: [10.2139/ssrn.2463017](https://doi.org/10.2139/ssrn.2463017).
- Silvestri, L.C. and Mason, P.G. (2023), "Improved access to biological control genetic resources: navigating the convention on biological diversity and the Nagoya protocol", *BioControl*, Vol. 68 No. 3, pp. 1-12.
- Suriyaprakash, T.N.K. (2021), "Intellectual property rights: bioprospecting, Biopiracy and protection of traditional knowledge-an Indian perspective", *Intellectual Property*, IntechOpen.
- Taracha, E., Hassan, A., Kavaka, M., Busolo, G., Maundud, P., Mutungi, P., Kariuki, P., Mburu, B., Kibet, S., Tanui, D., Nyaega, I., Shilabukha, D., Makhanu, R., Kitharea, S., Nyakwebaa, J., Otipu, L., Ebenyo, J. and Kyalo, B. (2023), "Towards establishment of an indigenous knowledge innovation bank: the Kenyan prototype", *The 3rd International Conference on Information and Knowledge Management (2nd – 6th October 2023)*, Technical University of Kenya. Nairobi.
- The Constitution of Kenya (2010), (Kenya).
- The Copyright and Intellectual Property Protection (2001), (revised in 2019) (Kenya).
- The Economic Community of West African States (ECOWAS) (1987), "ECOWAS cultural framework agreement 1987", available at: [www.ecowas.int/publication/treaty/](http://www.ecowas.int/publication/treaty/)
- The National Museum and Heritage Act (2009), (Kenya).
- The National Policy on Culture and Heritage (2019), (Kenya).
- The Protection of Traditional Knowledge and Cultural Expressions (2016), (Kenya).
- The Science, Technology, and Innovation Act (2013), (Kenya).
- The Seeds and Plant Varieties Act (2015), (Kenya).
- United Nations Declaration on the Rights of Indigenous Peoples (2007), "United nations", Retrieved May 7, 2023, available at: [www.un.org/](http://www.un.org/)
- World Health Organization (2002), "The world health report 2002: reducing risks, promoting healthy life", World Health Organization.

### Further reading

- The Forest Conservation and Management (2016), (Kenya).
- Tone-Pah-Hote, T. and Redvers, N. (2022), "The commercialisation of biospecimens from indigenous peoples: a scoping review of benefit-sharing", *Frontiers in Medicine*, Vol. 9, p. 2302.

---

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UNEP (2023), "Indigenous peoples and the nature they protect", available at: [www.unep.org/news-and-stories/story/indigenous-peoples-and-nature-they-protect](http://www.unep.org/news-and-stories/story/indigenous-peoples-and-nature-they-protect)

UNESCO (2010), "Indigenous knowledge in global policies and practice for education, science and culture", (Douglas, Ed.). UNESDOC Digital Library. Retrieved June 5, 2023, available at: <https://unesdoc.unesco.org/ark:/48223/pf0000265855>

WHO (2022), "African traditional medicine day 2022: WHO | regional office for Africa", available at: [www.afro.who.int/regional-director/speeches-messages/african-traditional-medicine-day-2022](http://www.afro.who.int/regional-director/speeches-messages/african-traditional-medicine-day-2022)

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**Corresponding author**

Joel Nakitare can be contacted at: [jnakitare@rongovarsity.ac.ke](mailto:jnakitare@rongovarsity.ac.ke)

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