



INDIGENOUS KNOWLEDGE SYSTEMS



What are indigenous knowledge systems?

Indigenous knowledge systems (IKS) are traditional wisdom, practices and beliefs passed down through generations within Indigenous communities. Indigenous people are the original inhabitants of a region, with distinct cultural, social and historical identities. They maintain strong connections to their ancestral lands, traditions, languages and knowledge systems. These communities often have a unique relationship with the environment, central to their cultural practices. Key characteristics of Indigenous peoples include cultural continuity, a strong connection to their land, both spiritually and practically, and self-identification as distinct from other societies.

Many Indigenous groups have been subject to colonisation, displacement and marginalisation due to external forces like colonial powers and modern development, and they continue to fight for the recognition of their rights, land and cultural heritage.

Indigenous knowledge systems are deeply rooted in the cultural, spiritual and environmental contexts of specific communities, reflecting a profound understanding of nature, agriculture, medicine, governance and social relationships. These systems include practical skills and worldviews that are often holistic, emphasising the interconnectedness of humans, the environment and the spiritual realm. Typically oral, Indigenous knowledge is passed on through storytelling, rituals and communal activities, reflecting the lived experiences of Indigenous peoples in their natural surroundings.



EXAMPLE OF AN INDIGENOUS WORLDVIEW: THE VENDA PEOPLE OF SOUTH AFRICA CONCEPT OF MUPO

In the Venda worldview, Mupo represents the totality of life and nature – all that is created by forces outside human influence. From the soil and seeds to the plants, animals, air, wind and the light of stars, Mupo encompasses the entire natural world and the cosmos. It is life itself, a harmonious existence where humans are inextricably linked to the Earth. This holistic understanding positions the protection of Mupo as the sacred responsibility of each generation, ensuring that the next inherits a world as rich and vibrant as the one before. Mupo is not only a matter of environmental conservation but also a cultural and spiritual foundation that sustains social and ecological harmony. Through these efforts, the Venda people strive to reconnect with their roots and safeguard the delicate balance of Mupo for future generations.

In this model, all people are regarded as being indigenous as all originate from the same source; indigeneity is determined by the degree to which one is living in Mupo or not.



IKS in Africa

In Africa, indigenous knowledge systems are of paramount importance as they represent a rich repository of cultural heritage and sustainable practices. Given the continent's diverse ecosystems and societies, IKS have been instrumental in maintaining ecological balance, preserving biodiversity and promoting sustainable agricultural practices long before modern scientific interventions. They play a crucial role in addressing contemporary challenges such as climate change, food security and health by offering locally adapted solutions that are often more sustainable than industrial approaches. Furthermore, the relevance of IKS extends beyond environmental issues; they are integral to the social fabric of many African communities, offering models of governance, conflict resolution and communal living that are deeply aligned with the values of solidarity and collective wellbeing. In the face of globalisation and the erosion of traditional practices, there is growing recognition of the need to preserve and integrate IKS into contemporary development agendas to foster resilience and cultural identity.

The contribution of African IKS to modern design principles

African IKS have a significant influence on modern design, offering valuable insights, practices and aesthetics that are being increasingly incorporated into contemporary design disciplines.

- ▶ **Sustainable design practices:** African IKS emphasise sustainability, using local, renewable materials and minimal waste, inspiring modern eco-friendly architecture and sustainable design solutions.
- ▶ **Cultural identity and aesthetics:** Traditional African art, patterns and symbolism influence contemporary design in African and global fashion, interiors and products.
- ▶ **Craftsmanship and traditional techniques:** African craftsmanship in weaving, pottery and metalworking informs modern design, blending heritage techniques with contemporary, high-quality, artisanal products.
- ▶ **Indigenous knowledge in innovation:** Traditional agricultural practices and medicinal plant knowledge from African IKS influence modern agricultural design and natural health product innovations.
- ▶ **Community-based design:** African IKS emphasise community involvement in decision-making, influencing modern urban planning that fosters participatory, inclusive, and socially cohesive environments.

Threats to IKS and the systems meant to protect them

▶ **Globalisation and westernisation:** The spread of global values and technologies diminishes the importance of indigenous knowledge, particularly among younger generations, as Western education often overlooks traditional wisdom.



▶ **Loss of traditional languages:** As indigenous languages decline, the oral transmission of knowledge, including medicinal and agricultural practices, is increasingly lost.



▶ **Environmental degradation:** Environmental destruction, such as deforestation and pollution, disrupts ecosystems and weakens the foundations of indigenous knowledge tied to the land.



▶ **Land grabs and loss of territories:** Displacement and loss of access to ancestral lands undermine indigenous practices and their knowledge systems, which depend on local resources and territories.



▶ **Mining and industrial development:** Mining and industrial projects damage ecosystems and sacred sites, eroding the cultural and ecological knowledge that indigenous communities rely on.



▶ **Commercialisation and exploitation of IKS:** Indigenous knowledge, such as medicinal practices, is often exploited without proper compensation or recognition, leading to cultural and economic marginalisation.



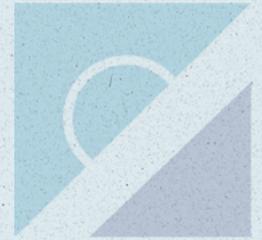
▶ **Climate change:** Unpredictable climate patterns disrupt traditional agricultural knowledge and practices, threatening food security and livelihoods.



▶ **Cultural erosion and loss of intergenerational knowledge:** Urbanisation and modern lifestyles disrupt the transmission of knowledge from elders to younger generations, leading to a decline in traditional practices and values.



There are laws and international agreements that provide essential frameworks for the protection of IKS, but their implementation often faces challenges, particularly in ensuring that Indigenous communities have meaningful participation in decision-making and that their rights are respected by corporations and governments. Below are some frameworks that aim to protect IKS and the communities that have developed them.



- ▶ **United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP):** Adopted in 2007, UNDRIP affirms Indigenous peoples' rights to their cultural heritage, including traditional knowledge, and requires free, prior, and informed consent for projects affecting them.
- ▶ **Convention on Biological Diversity (CBD):** The CBD (1992) protects Indigenous knowledge related to biodiversity and promotes fair sharing of benefits from the use of genetic resources, reinforced by the Nagoya Protocol (2010) on access and benefit-sharing. (see Factsheet: Biodiversity, its contributions and current status)
- ▶ **World Intellectual Property Organization (WIPO):** WIPO works on protecting traditional knowledge and folklore through intellectual property frameworks like geographic indications, patents, and copyrights to prevent misuse.
- ▶ **African Union's African Model Law on the Protection of the Rights of Local Communities:** This 2000 law protects African communities' rights over their knowledge, biodiversity, and genetic resources, emphasising consent and benefit-sharing.
- ▶ **International Labour Organization (ILO) Convention 169:** Adopted in 1989, ILO Convention 169 guarantees Indigenous peoples' rights to maintain their cultural practices and knowledge and ensures participation in decisions affecting them.
- ▶ **Convention for the Safeguarding of Intangible Cultural Heritage (2003):** UNESCO's convention protects intangible cultural heritage, including traditional knowledge and practices, by promoting their preservation and recognition.
- ▶ **Access and Benefit-Sharing (ABS) Framework:** Under the CBD, the ABS framework, including the Nagoya Protocol, ensures Indigenous communities share in the benefits derived from the use of their traditional knowledge and genetic resources.
- ▶ **Cartagena Protocol on Biosafety:** This protocol regulates the safe use of genetically modified organisms (GMOs) and acknowledges the role of Indigenous knowledge in biodiversity decisions.

KEY ELEMENTS OF IKS

IKS are **contextual**, rooted in specific cultural, environmental and historical settings. They are **holistic**, emphasising the interconnectedness of humans, nature and the spiritual realm. IKS are **primarily passed down orally** through storytelling, rituals and communal practices, making them both **practical** and deeply tied to daily life, including agriculture, medicine and governance. These systems are **dynamic and adaptable**, evolving with changing circumstances while maintaining core values. IKS are **community-based**, shared collectively to ensure their continuity, and often reflect **profound ecological wisdom**, promoting sustainable resource management. Additionally, IKS are closely tied to Indigenous peoples' rights, including land, self-determination and cultural preservation, making their protection essential for the survival of indigenous identities.



Listen to the podcast on *Indigenous Knowledge Systems in Africa*.

