

# Protecting and benefiting from indigenous knowledge

## The National Indigenous Knowledge Management System

Indigenous knowledge (IK) holds significant value – it emboldens cultural heritage and identity, and offers valuable economic and environmental benefits.

However, changing lifestyles in the form of urbanisation, commercialisation, marginalisation and rapid technological changes heralded the decline of indigenous knowledge, and its possible demise, unless something was done to protect this useful resource.

A solution to this challenge was presented by the Department of Science and Innovation in the form of the National Recordal System (NRS) initiative in collaboration with the CSIR, with the implementation and national rollout of the National Indigenous Knowledge Management System (NIKMAS).

The NRS records, preserves, protects and promotes South Africa's wealth of indigenous knowledge, and helps communities to develop and responsibly disseminate their products. NIKMAS is the backbone of this digital repository and was created to detail traditional medicine, ethnobiology, indigenous environmental knowledge and intangible cultural heritage. Both the initiative

and the system give expression to the Protection, Promotion, Development and Management of Indigenous Knowledge Act, No. 6 of 2019.

Key collaborators include the South African National Biodiversity Institute; the Department of Environment, Forestry and Fisheries; the Data Intensive Research Initiative of South Africa; the South African National Research Network; the universities of KwaZulu-Natal, Free State, Fort Hare, Zululand and Venda; and traditional authorities.

Since its inception in 2013, networks have been established across all nine provinces where 90 rural communities record their IK on NIKMAS. Continuous refinements to the system provide an innovative security model for the protection of holdings as well as an advanced search engine and cataloguing facility. More than 80 youths (regional representatives) have been employed, trained and equipped with computers and cameras

to facilitate the recording of IK in their communities. Under the core themes of 'Food' and 'African Traditional Medicine', more than 25 579 IK entries have been documented and more than 3 000 IK holders recorded.

In addition, positive acknowledgement of the progress and impact of the initiative by stakeholders such as the Parliamentary Portfolio Committee and resultant legislation, firmly entrenched the importance of capturing IK and helping communities benefit from that knowledge for posterity.

Briefly, the process entails the Department of Science and Innovation training the regional representatives, who then find the community members who have the indigenous knowledge, and then record and document such in the communities. The recordings are submitted to the Indigenous Knowledge System Documentation Centres across the country in the form of videos, audio recordings, transcriptions and photos.

Indigenous plants species Aloe and *Latana camara*





Desert rose, *Adenium obesum*, also known as Kudu, Mock Azalea, Sabi Star or Impala Lily.

From the documentation centres the information is sent to central NIKMAS, where it is classified to national and international standards, and the necessary security access levels set to strict criteria. The plants used in the indigenous knowledge application are collected for scientific authentication, to ensure legal defensibility.

While the initiative focuses on indigenous knowledge with a scientific base, it considers its holistic nature. It acknowledges the limitations of intellectual property regimes, while being considerate of current copyrights, trademarks, biodiversity and related legislation.

The wealth of information is shared under sound protocols with the South African public, especially the scientific, research and academic communities for consumption, dissemination and further development. Further, the legal frameworks supporting the NRS ensure that the original holders of the IK in communities are not compromised.

Evidentiary of the success of the NRS and NIKMAS are presentations made to the World Intellectual Property Organisation to make the initiative an international benchmark.



## Touching lives

Without NIKMAS enabling and maintaining a secure and accessible national repository for the protection and beneficiation of indigenous knowledge, cultural treasures such as the Khomani San's unique knowledge of nature, the land, the plants and their healing properties would be lost to future generations. Similarly, in uMhlabuyalingana, KwaZulu-Natal, the community has made jam and beverages from marula fruit for centuries. NIKMAS helps this community, and many others, to protect their knowledge to further develop and eventually commercialise their products.

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