



African Contributions to Global Health

Audio Transcript

South African medicinal plants in global health

TANJA HAMMEL: African medicinal plants have made crucial contributions to global health for a long time. South Africa is rich in medicinal plants. Rooibos is probably the most widely known and used. Let's focus on two more recently popular examples: cancer bush and kanna.

Cancer bush, or *Sutherlandia*, is an indigenous medicinal plant widely used in many parts of South Africa, Namibia and Botswana. Depending on its geographic location, its chemical and genetic properties vary. *Sutherlandia* is widely used as a traditional medicine and mostly harvested in the wild, but it is also grown in community gardens as well as commercially on a few farms. The original inhabitants of the Cape, the Khoi, San and Nama peoples, used decoctions made from *Sutherlandia* to wash wounds and to bring down fevers. First records of this use come from Dutch colonists in the Cape, who probably learned about it through interaction with the Khoi and San. The plant has more than 25 recorded names. Many of these refer to its medicinal uses.

Emeritus Professor Diana Gibson, a medical anthropologist at the University of the Western Cape, Cape Town, South Africa, explains one of its names:

DIANA GIBSON: As the Afrikaans name "kankerbos" – "cancer bush" – indicates, it is reportedly used for certain kinds of cancers. It has the potential to become a source of new treatments against colorectal cancer.

TANJA HAMMEL: She goes on to explain that:

DIANA GIBSON: There has been increasing attention to studies on the effects of the plant on noncommunicable conditions as an immune modulator and antioxidant and as having anti-bacterial and anti-cancer activity.



TANJA HAMMEL: In South Africa, *Sutherlandia* is used by an array of healers, such as herbalists, diviners, bush doctors, Rastafarians, alternative and allopathic medicine practitioners as well as lay people. Its stem, leaves, flowers, pods and roots are typically used to make infusions and decoctions. Infusions from the leaves and stem are used to treat cancers, fever, diabetes, kidney and liver problems, rheumatism, and stomach ailments. The plant is also used against depression and stress or as a tonic. The therapeutic properties of *Sutherlandia* are based on its ability to help the human body mobilise its own immunological and physiological resources, so that it can combat diseases and fight emotional stress. Today, *Sutherlandia* is one of the most commonly used medicinal plants in the Western Cape, as Diana Gibson's recent study confirms:

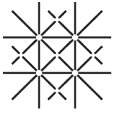
DIANA GIBSON: We recently did a survey of 1,178 households in four randomly selected sites in the Western Cape on medicinal plant use. The research area ranged from rural to peri urban and urban areas. We were particularly interested in people who have been diagnosed with high blood pressure and/or type two diabetes mellitus. And we wanted to determine the frequency of medicinal plant and allopathic medicine use. And the most commonly used plant was actually *Sutherlandia*: 96% of the people used it.

TANJA HAMMEL: So far, pharmacologists in the Global North have not been interested in *Sutherlandia* and it is hardly available in the Global North.

Acknowledging the value of indigenous knowledge in South Africa has highlighted a couple of issues. The first is protecting these plants. The second is ensuring that knowledge holders are compensated for their contribution to the development of commercially traded products. To this end, South Africa is putting a lot of effort into protecting indigenous communities and encouraging them to use their natural resources and value their traditional knowledge and innovations. Benefit sharing, bio-prospecting and intellectual property rights are crucially important in these discussions.

Other countries could benefit from learning more about this process in South Africa. As Diana Gibson says:

DIANA GIBSON: There are already South African plants used all over the globe, like rooibos. If you look at it, like *Aloe ferox* or Cape aloe, it's used everywhere for all kinds of things, like buchu [*Agathosma betulina*].



TANJA HAMMEL: But what is especially important to her is kanna, which loosely translates as ‘something to chew on’. This plant elevates mood and decreases stress, tension, pain and anxiety. It has been used by pastoralists and hunter-gatherers since prehistoric times and has quietly made its way onto the local and international market. With its ability to elevate mood, it has become a candidate for treating depression and addiction. After clinical trials, a benefit-sharing agreement with the South Africa San Council was signed in 2008. This was the first prior informed consent benefit-sharing agreement with indigenous knowledge holders in South Africa. The San Council acts as a representative body for the Khoi and San peoples to protect their rights relating to their traditional knowledge on plants. The San Council shares royalties with the communities that grow and harvest the plants. As Diana Gibson says:

DIANA GIBSON: For me, personally, the issue of *Sceletium* is very interesting because South Africa is not really rich in these kinds of plants. We have plants with enormous medicinal benefits but not necessarily psychoactive; these are far fewer. And *Sceletium* is one of these plants, actually.

TANJA HAMMEL: The potential of these two medicinal plants from Southern Africa for improving global health could be immense, given the universal suffering caused by cancer and depression. Moving forward, it will be interesting to observe how the two plants might be used and distributed globally. The same goes for other medicinal plants from across Africa.