

# **South Africa's rare succulent plants are threatened by illegal trade—how to stop it**

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South Africa's succulents—small, fleshy, green plants sometimes shaped like roses or stars, and often found peeping out between rocks in dry areas—are sought after by an increasingly international collector market.

The popular [\*Conophytum\*](#), [\*Lithops\*](#) and [\*Tylecodon\*](#) are part of the group of rare and aesthetically unique succulents which are now being illegally traded all over the world.

Since 2019, over [1 million succulent plants from 650 species unique to South Africa](#) have been illegally harvested in South Africa.

As social scientists who have extensively researched conservation conflicts, community-centered conservation and the [illegal wildlife trade](#), we [set out to uncover](#) the supply chains and people involved in the global succulent trade, and reach conclusions about [how the trade could be curtailed](#).

We conducted interviews, focus groups and fieldwork across sub-Saharan Africa, Asia, Europe, North America and South America. We drew parallels with the way authorities responded to rhino poaching, and looked at what we could learn from that experience.

Because the word "poaching" is fraught with unjust histories of who is allowed to hunt or harvest wildlife, we do not describe succulent harvesting as "poaching."

[Our research found](#) that people illegally harvest plants for many reasons. Because the illegal succulent trade is tied to international consumer demands and market trends, [loosely connected groups of people or individuals](#) harvest succulents to [supply this market](#).

Other collectors are [individual plant enthusiasts](#) who are after rare plants for their private collections, and communities who have been using succulent plants for cultural and medical reasons for centuries.

"Organized crime," represented in the media in the form of dangerous and well-armed syndicates, is also a concern. There are several ongoing [high-profile investigations into systemic corruption](#) within enforcement and conservation agencies. These underscore the complexities of tackling this trade.

Succulents are also harvested by [people who are desperate for economic opportunities](#), sometimes recruited as part of larger transnational supply chains.

We argue it is important that responses to the illegal trade recognize these differences. Our research found that the best approach would be socioecological [harm reduction](#), which focuses on minimizing harm to ecosystems and communities. Militarized anti-poaching would only lead to the criminalization of traditional practices. And it would not protect succulent species.

Communities that use local succulents for cultural and medical reasons and collectors who desire to own and care for these wonderful plants could instead become [potential conservation partners](#).

## **The illegal trade in succulents is on the rise**

[The Succulent Karoo Biome](#) in South Africa is the world's only hot arid biodiversity hotspot. An area of 116,000km<sup>2</sup>, the Succulent Karoo straddles the Western Cape and Northern Cape provinces of South Africa and southern Namibia. More than 6,000 plant species are found in this region, including 1,600 succulent plants.

About 40% of the biome's flora grow nowhere else in the world. Because it is a harsh environment with little rainfall, many of these species grow extremely slowly. Some of these [geophyte plants](#) (bulbs and tubers) can live to be hundreds of years old.

South Africa's flora are protected under the [National Environmental Management: Biodiversity Act](#), which governs the [sustainable use](#), conservation and benefit-sharing of South African biodiversity. Threatened species (including many traded succulents) are also regulated under South Africa's [Threatened or Protected Species Regulations](#).

[Official reports](#) show that confiscations of illegally harvested succulents have risen dramatically since 2019.

This is linked to the [increasing global demand](#) for [rare plants](#), driven by the rise in online marketplaces and social media trends. Some species are now functionally extinct in the wild. This means their populations are too small for them to keep reproducing.

These problems have [led to calls](#) for militarized conservation responses, similar to those used against rhino poaching. This "[green militarization](#)" involves [partnerships](#) between conservation groups, the military and private security companies, who use paramilitary measures to stop poaching.

But are they effective? Despite substantial investment in militarized strategies, rhino poaching [persists](#). Rhino populations continue to [decline](#). The militarized approach has led to [frequent and sometimes deadly encounters](#) between rangers and suspected poachers. It has also led to [human rights abuses](#) during pursuit and interrogation, and [extralegal killings](#) of poaching suspects.

If the same approach were used to stop succulent harvesting, Indigenous

communities who live where the plants grow and who use them would be unfairly targeted. This is because framing conservation as a "[war on poaching](#)" has created adversarial relationships between conservationists and communities, eroding trust and collaboration.

## **Why a harm-reduction approach is best**

The sale of succulent plants reflects deep inequalities in the sense that international traders and collectors profit from the illegal trade. But people who have traditionally used succulents in cultural and medicinal practices are largely excluded from these benefits. (Among them are the 300,000 people who [live across the Karoo biome](#) in places like Namaqualand.)

Many succulent plants are not endangered. They can be safely cultivated and harvested. This would provide much-needed income in rural areas where unemployment is high.

Outright harvesting of wild succulents is generally prohibited. Propagating and cultivating the plants is allowed under permit. However, many communities lack technical capacity and cannot get access to these permits or find the resources to obtain them. This excludes them from selling in legal markets.

[Agreements exist](#) in global conventions to ensure that host countries get the economic benefits from their genetic resources (such as plants). If these agreements were implemented, then many non-endangered succulents could be sold and even grown overseas.

Complicated permits and a lack of [streamlined processes](#) have made these agreements difficult to carry out, not only in South Africa, but in many countries around the world.

For this reason, conservationists and the people who live where the plants grow ought to work together. They can find solutions that don't harm ecosystems and people. It is possible for users of succulent plants to build sustainable livelihoods derived from biodiversity, and conserve the plants at the same time.

## Looking ahead

The succulent trade offers an opportunity to rethink conservation in ways that avoid the mistakes of the past. It's not necessary to rely solely on law enforcement-first responses.

Indigenous knowledge that has long supported biodiversity and livelihoods must be brought into [conservation](#) strategies.

Economic opportunities can be set up as part of legitimate value chains. For instance, regulated harvesting programs could allow people to sustainably gather and sell certain succulents legally.

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