

Ecological infrastructure

Case study 8

Protect natural ecosystems and the plants and animals living in them because they hold the key to sustaining our lives and economies.

A cup of tea

NIUWOUTVILLE, NORTHERN CAPE

Rooibos tea grows wild in the fynbos of the Suid Bokkeveld, and small scale tea farmers harvest it for a living. Wild rooibos is more drought and heat tolerant than the kind of rooibos that commercial farmers have been cultivating for 80 years. Wild rooibos may be the answer to commercial farming of rooibos tea, and sustaining the associated jobs and downstream economic benefits, in a hotter, drier, climate-altered world. We depend on various plants for medicine and agriculture.





Few of the small-scale farmers of the Suid Bokkeveld, near Nieuwoudtville in the Northern Cape, own a piece of land. Many of them aren't formally educated. For decades, they've eked out an existence by tending small herds of sheep or goats on someone else's farm. Some grow a few crops. Many hire themselves out as seasonal labourers for a few months every year. Very few of them even had bank accounts until recently.

But these farmers know tea. And the rooibos tea plants that grow wild in this far northern part of the Cape's floral region is their most important asset. For these farmers, harvesting wild rooibos to sell to the international organic and fair trade tea markets has been the answer to their limited livelihood options in this remote and agriculturally marginal countryside.

In 2001 they formed the Heiveld Cooperative with the help of Cape Town-based civil society organisation, the Environmental Monitoring Group (EMG) and local non-governmental organisation, Indigo Development and Change. Their financial returns have been significant. Some people of retirement age have opened their first bank accounts. Others have been able to buy second-hand bakkies or tractors which, for people who used to spend an entire day travelling to the nearest town to do a basic grocery shop, were a significant improvement in their lives.

Many were able to access basic health care for the first time, like getting dentures made, something that had previously been unaffordable.

Wild rooibos isn't just important for this historically impoverished community, though. It might hold the key to the future of rooibos cultivation as the region becomes hotter, drier and less hospitable for tea farming.



Globally, the demand for rooibos has exploded in recent years because of its potential health benefits.

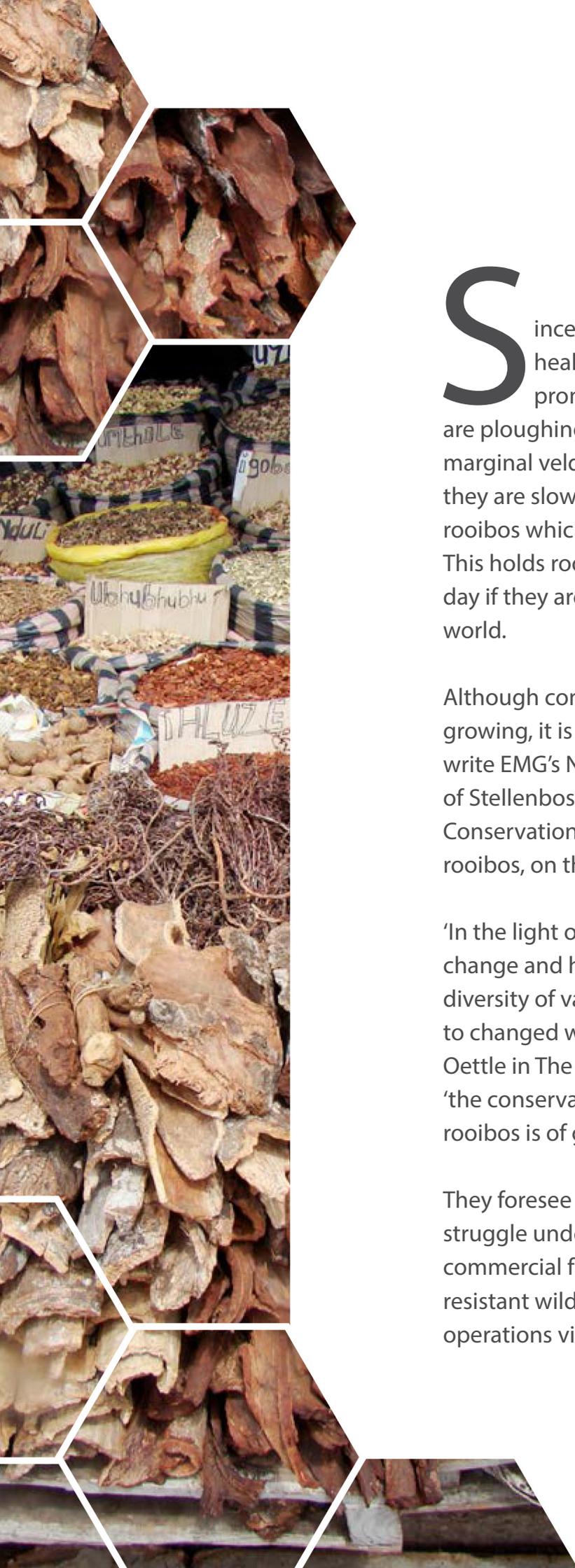
Few people realise that this unprecedented demand is fed by a relatively tiny commercial rooibos tea sector, because rooibos is indigenous to the winter-rainfall fynbos communities in the Cape Floral Kingdom.

This tea, harvested from the shrub-like plant that is a member of the pea family, doesn't grow anywhere else in the world. The entire global market is supplied by just 79 000 hectares of tea fields, according to Conservation International's 2010 GreenChoice Biodiversity Baseline Study.

The rooibos grown for commercial purposes is known as the 'Rocklands' or 'Nortier' type, which is one of several wild types which Khoi people have been using for generations. This particular type was found in the Pakhuis area in the Cederberg in the 1930s and was believed to be the best to farm commercially because it grows fast and upright.

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Since rooibos became the darling of the health industry because of its many health-promoting properties, commercial farmers are ploughing up more and more indigenous and marginal veld to make room for tea fields. As such, they are slowly eroding the genetic stock of wild rooibos which is banked away in the natural veld. This holds rooibos types which they might need one day if they are to continue farming in a hotter, drier world.

Although commercially grown rooibos is fast growing, it is less resistant to drought and pests, write EMG's Noel Oettle and Rhoda Malgas of Stellenbosch University's Department of Conservation Ecology and Entomology. Wild rooibos, on the other hand, is far more resilient.

'In the light of what we are learning about climate change and how important it is to conserve the diversity of varieties of plants to facilitate adaptation to changed weather conditions,' write Malgas and Oettle in *The Sustainable Harvest of Wild Rooibos*, 'the conservation of the various varieties of wild rooibos is of great significance.'

They foresee a day when commercial rooibos will struggle under new, hotter climate regimes, and commercial farmers will need to turn to drought-resistant wild types in order to keep their farming operations viable.



Medicinal plants in the wild

Rooibos tea's medicinal qualities make it amongst the over 2 000 indigenous plants in South Africa that are used for some medicinal purpose.

A third of these are traded commercially. According to the South African National Biodiversity Assessment 2011, some 'R2.9 billion changed hands through the harvesting, trade and manufacture of these natural remedies, as well as through associated industries (such as consultation with traditional healers)'

The heavy demand for medicinal plants is also pushing many species perilously close to extinction.

'Nearly 10% of all the plant species that are bought and sold for medicinal purposes are threatened, some 56 species in all,' states the South African National Biodiversity Institute. 'Ecologists recommend urgent action to prevent the further loss of these valuable threatened species ... so that we can ensure they are harvested sustainably and don't also find themselves on the threatened list.'

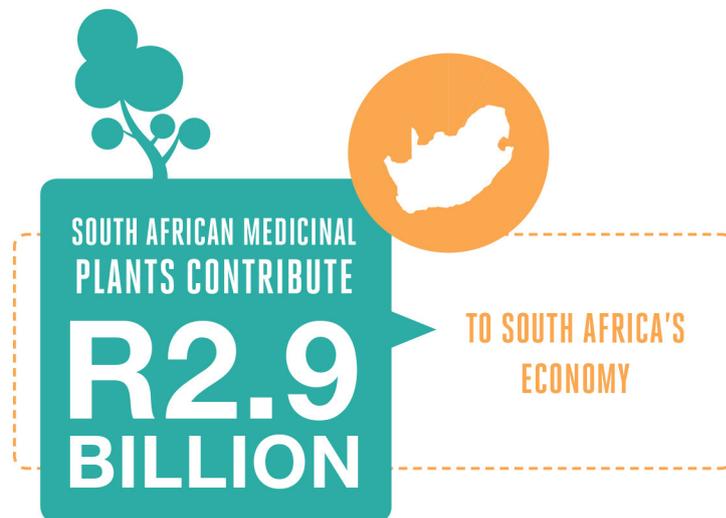
The heavy demand for medicinal plants is also pushing many species perilously close to extinction.

Protecting natural vegetation is an investment in keeping these populations of medicinal plants, just like wild rooibos, thriving so that future generations can also harvest them for medicines, or benefit from farming or selling them. However, this must be done sustainably.





Protecting natural vegetation is an investment in keeping these populations of medicinal plants thriving so that future generations can also benefit from harvesting them sustainably.



2011 South African National Biodiversity Assessment

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