

APRIL 2015

RESOURCE  
ASSESSMENT

One of the data gaps identified by the NDF process in Lesotho and South Africa's BMP development was lack of information on the plant's distribution and population density.

Through a project managed by the South African National Biodiversity Institute (SANBI), a comprehensive resource assessment was conducted by three experienced plant ecologists to obtain an understanding of the size of the *P. sidoides* wild resource, to determine what proportion is currently harvested, and to identify areas where harvest may impact on wild populations.



Project staff at work in Lesotho, CREDIT: TRAFFIC/Britta Paetzold



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## Sustainable management of *Pelargonium sidoides* in South Africa and Lesotho

**BACKGROUND** Kalwerbossie *Pelargonium sidoides*, of the Geranium family, is endemic to Lesotho and South Africa. It has slightly aromatic, velvety and heart-shaped leaves and dark reddish-purple flowers. The plant's root tubers have been used medicinally in southern Africa for many years, providing relief for colic, diarrhoea and dysentery. Although the benefit of this remedy has been known for many years, it is only since about 2001 that larger-scale commercial wild harvesting of the lingo-tubers commenced in South Africa and more recently in Lesotho, to supply a growing international market for commercially produced remedies to treat upper respiratory tract conditions.

The following case study presents an overview of TRAFFIC's extensive work on the sustainable and equitable *P. sidoides* use in South Africa and Lesotho, its contribution to the development of the Biodiversity Management Plan (BMP), based on the FairWild Standard principles, and getting those principles incorporated into national policy and legislation.

### LOOKING INTO THE PAST

In 2003, TRAFFIC conducted a first assessment of the sustainability of the *P. sidoides* harvest and found that although the trade did not imminently threaten *P. sidoides*, the species was under potential longer term threat owing to the very slow re-growth of root material left in the ground by harvesters and the danger of complete root removal as a result of unmanaged follow-up harvesting.



Project staff at work in Lesotho, CREDIT: TRAFFIC/Britta Paetzold

In 2005, TRAFFIC was approached by the Government of Lesotho to assist in building capacity within their CITES Management and Scientific Authorities. During a needs assessment for the training programme, the existence of an unregulated and undocumented industry for *P. sidoides* in Lesotho was revealed, while other sources reported illegal harvesting of the species from protected areas within South Africa. As a result, TRAFFIC and the National Environmental Secretariat of Lesotho agreed that the practical fieldwork component of the training course should focus on research in relation to making a Non-Detriment Findings (NDF).

A NDF is a study defining whether the harvest and trade of species is detrimental to its survival. Normally NDFs are conducted for CITES Appendix II-listed species before export permits are issued. Although not CITES-listed, *P. sidoides* was found to be a good candidate for an exercise on conducting an NDF due to its status and relatively large volumes of trade. This led to TRAFFIC being requested to facilitate collaboration between government regulators in South Africa and Lesotho and other stakeholders to ensure sustainability of wild sourced *P. sidoides* as well as the livelihoods of local people and industries dependent upon supplies.

Harvesting of *P. sidoides* subsequently featured in a 'Saving Plants that Save Lives and Livelihoods' project aimed to test the FairWild Standard (then the International Standard for Sustainable Wild Collection of Medicinal and Aromatic Plants (ISSC-MAP). The project was implemented between 2005 and 2009, with funding from BMZ (German Federal Ministry for Economic Co-operation and Development).



Kalwerbossie *Pelargonium sidoides*  
CREDIT: TRAFFIC/Britta Paetzold

**NON-DETRIMENT FINDINGS** Because of its specific trade focus, A Checklist for Making Non-detriment Findings—Guidance for CITES Scientific Authorities was found to be insufficient for identifying the requisite background information for the BMP for *P. sidoides*. However, these NDF guidelines have much in common with specific principles and criteria of the FairWild Standard. Consequently, during the NDF process for *P. sidoides*, these guidelines and FairWild criteria were applied jointly and used to document available knowledge and identify field research and data-collection priorities for the species. This enabled the compilation of an NDF in FairWild format, with the advantage that the scientific data gathered during the NDF could simply be incorporated into the structure of the FairWild-based

The results of the NDF exercise were communicated to delegates at the World Congress on Medicinal and Aromatic Plants (WOCMAP) in Cape Town in November 2008 and discussed at the 19th meeting of the CITES Plants Committee meeting in 2011. In addition, TRAFFIC was invited to participate in the Pelargonium Working Group (PWG), a group set up in South Africa to further promote the sustainable use of *P. sidoides*, and this provided an additional opportunity to promote FairWild, including to the medicinal industry.

**BIODIVERSITY MANAGEMENT PLAN** In late 2011, the South African Department of Environment Affairs (DEA) finalized the Biodiversity Management Plan (BMP) for *P. sidoides*'s based on the previous research. In October 2012, the BMP was formally approved for implementation in South Africa by publication in the Government Gazette. The implementation of the BMP is being supervised by the DEA-chaired Pelargonium Working Group (PWG), also responsible for reviewing and updating the plan after five years.

It is important to mention that in contrast to South Africa, the Lesotho's environmental legislation was highly fragmented and would not allow the BMP to be implemented easily or smoothly. In recognition of this shortcoming, TRAFFIC Environmental Law Centre (ELC) are planning a project that will provide recommendations to the Government of Lesotho on how to rationalize environmental laws for the effective implementation of CITES, CBD and the *P. sidoides* Biodiversity Management Plan.

**CURRENT STATE** TRAFFIC in collaboration with the governments of South Africa and Lesotho are currently preparing a funding proposal aimed at implementing the *P. sidoides* BMP in both countries.



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The views expressed are those of the individuals and organizations that contributed to the case studies and do not necessarily reflect those of TRAFFIC.

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## STUDIES ON RECOVERY

Initiation of scientific background work required to develop sound harvest protocols comprised a further element of FairWild implementation. In this connection, one of the main questions that required answers was the rate of tuber recovery of *P. sidoides*.

With BMZ funding, a study was carried out between 2008 and 2011 with the support of the National University of Lesotho, the Lesotho Department of Environment Affairs, Witwatersrand University in South Africa, and TRAFFIC. The research, among other outcomes, has resulted in a M.Sc thesis entitled 'Towards sustainability of harvesting the medicinal plant *Pelargonium sidoides* DC.'. The research demonstrated that any return harvest that occurred more regularly than 10 years would compromise tuber recovery and impact negatively on plant populations. This result has formed one of the harvest recommendations included in the BMP aimed at minimizing the negative impact of harvest.

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