



NDF WORKSHOP
WG 2 – Perennials
CASE STUDY 2 SUMMARY
Pelargonium sidoides
Country – **Lesotho**
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DEVELOPMENT OF A NON-DETRIMENT FINDING PROCESS FOR *PELARGONIUM SIDOIDES* IN LESOTHO

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Pelargonium sidoides (DC) is a medicinal plant species used to treat various digestive and respiratory tract complaints in both humans and livestock. The species occurs at altitudes ranging from near sea level to almost 3,000 metres in Lesotho and in habitats ranging from short grassland, sometimes with occasional shrubs or trees, on often-stony soil varying from sand to clay-loam, shale or basalt to Lesotho Highland Basalt grassland. The species is tolerant of a wide range of climatic and environmental conditions ranging from extreme cold (snow and frost), high summer temperatures, low rainfall, stony soils, fire and disturbance caused by human and livestock. It is a resilient plant able to regenerate from ligno-tuber sections and seed. However, observations that this species is popular in trade and evidence that too regular return harvesting leads to decline in populations, led to concerns that the species may be under threat in the wild. To determine the level of threat, if any, to the population a non-detriment finding (NDF) was conducted in Lesotho. The NDF procedure involved five steps to cater for the particular circumstances prevalent in Lesotho at the time, as follows.

Step 1: TRAFFIC conducted a needs assessment for the CITES Scientific (SA) and Management Authority (MA) of Lesotho to identify priority training needs and species in trade. In this manner *Pelargonium sidoides* was selected. A project proposal to provide CITES training to the SA and MA of Lesotho was compiled and *P. sidoides* was included to facilitate theoretical and field-based training in the elements of a non-detriment finding as prescribed in article IV of the CITES.

Step 2: A literature review of mainstream scientific and grey literature relevant to *P. sidoides* over the period 2001 to 2008 was conducted.

Step 3: A CITES training workshop on the role and function of CITES SA's was conducted with the Lesotho SA. During this workshop the non-detriment finding checklist developed by Rosser and Haywood (2002) and the International Standard for the Sustainable Wild Collection of Medicinal and Aromatic Plants (ISSC-MAP) was utilised to assess the Lesotho SA's knowledge of *P. sidoides*, to develop field research priorities,

to guide and populate the non-detriment finding report and to provide baseline information for inclusion in a species management plan.

Step 4: Fieldwork and interviews to obtain the priority data, including distribution, density, trade volumes and harvest methodologies, and required for the NDF and ISSC MAP management plan was conducted in various locations throughout Lesotho.

Step 5: Using field data, an Arc-GIS based data analysis workshop estimated the distribution, density, and the total estimated population of the species. The GIS model estimated the total Lesotho population of *P. sidoides* to consist of approximately five million plants. Comparing this to the **maximum** estimated harvest of approximately 2.5 million plants over seven years (being the minimum estimated time required for a ligno tubers to recover to a commercially valuable dimension) it can be shown that approximately half of the country's total population is subject to harvest.

From this sequence of activities it can be deduced that the current harvest levels are detrimental to the species in Lesotho. This is regarded as a preliminary estimate of impact that requires further research, specifically into the ligno-tuber recovery rate, and periodic review as provided for in the ISSC-MAP based management plan currently under development.