



NDF WORKSHOP  
**WG 3 – Succulents and Cycads**  
**CASE STUDY 1 SUMMARY**

*Aloe* spp  
Country – **East and Southern Africa**  
Original language – English

## **SUSTAINABLE USE OF EAST AFRICAN ALOES: THE CASE OF COMMERCIAL ALOES IN KENYA**

### **AUTHORS:**

Emily Wabuyele and Solomon Kyalo

Aloes are a common feature of dryland ecosystems in many parts of Africa, with large diversity of species in Southern Africa, Eastern Africa and on the Island of Madagascar. In both traditional and modern times, aloes are popular for use as therapeutic agents in the treatment of livestock and human conditions. A few species like *A. vera* and *A. ferox* are traded in large volumes on international markets. Of the sixty taxa found in Kenya, five have recently been identified as being of high potential for commercial harvesting. One of the species, *A. secundiflora* is widespread in Ethiopia, Kenya, Rwanda, Sudan, Tanzania and Uganda; both *A. calidophila* and *A. rivae* occur only in Kenya and Ethiopia, while *A. scabrifolia* is endemic to Kenya. All East African aloes are listed on Appendix II of CITES.

Although commercial harvesting of aloes was banned following a Presidential Decree in the mid 1980s, pertinent data was unavailable for monitoring. In addition, enforcement of the Ban was difficult in the absence of proper policy guidelines. In recognition of the economic potential of aloes, national stakeholders sought to generate baseline information on the *Aloe* resource base in Kenya. A mapping survey was conducted in 2005 in districts where aloe harvesting had been reported. Sampling procedures for the inventory were modified from methods used for non-wood forest products.

On the basis of information generated on this and previous studies, a Non-detriment assessment (NDF) was conducted on the five species found to be in (illegal) trade. The NDF study systematically followed the IUCN checklist for the process (Rosser, 2008) in which qualitative assessments were augmented by quantitative data. Optimal harvesting regimes for the species were conceived on the basis of information gathered from the surveys, taking cognizance of the national legal provisions governing the conservation and management of the species. Final assessment of the impact of commercialisation was based on species distributions, growth habit, potential for regeneration, ecological resilience and tolerance to human disturbance. In order to gauge sustainability of harvesting, information on both legal and illegal trade at domestic and international scales were assessed. Trade statistics were sourced from market reports and from informants in commercial aloe producing centres.

Data obtained from the outlined sources was analyzed to determine protocols for establishing so-called *Aloe* Management Units (AMUs) as entities for controlled and sustainable harvesting of target species from the wild. In addition a National Strategy was formulated and launched in 2008 to guide implementation of aloe utilisation guidelines in sustainable utilisation of aloes. The Strategy as a Management Plan for Kenyan aloes prescribes systems, procedures and institutional arrangements for sustainable management of the species in accordance with the national legislation on wildlife and international obligations regarding international trade in wildlife species and their derivatives.

The major challenge in the elaboration of NDF studies on commercial aloes in Kenya is inadequate information on aspects such as auto-ecology, demography and population dynamics. In addition the discrete nature of hitherto illegal trade in aloes hampered systematic documentation of trade volumes and market trends thus making it difficult to assess the levels of harvest and the impact on the natural populations.

For efficient management of aloe trade in Kenya, it will be crucial to obtain baseline information that will enable periodic monitoring of the impact of off-take on natural populations. It is recommended that detailed studies are carried out on the aloes in trade to establish spatial and genetic structure and dynamics of populations. Data accruing from such studies will enhance objectivity in application of the IUCN Checklist for NDF on these species. In addition it will be crucial to develop efficient identification and authentication tools for the various species and their products for surveillance at the ports of exit from the country.