



Medicinal Root Trade, Plant Conservation and Local Livelihoods in Southern Morocco

For three years, from April 2013 to March 2016, Global Diversity Foundation collaborated with High Atlas Foundation, Scientific Institute of Rabat, Cadi Ayyad University Regional Herbarium and the Ministry of Water and Environment, to enhance local livelihoods in the Moroccan High Atlas while addressing threats to plant diversity. With funding from the UK Darwin Initiative, and co-funding from the Critical Ecosystem Partnership Fund, we worked among Amazigh (Berber) indigenous communities in two rural communes: Ait M'hamed in the Azilal province and Imegdale in the Al Haouz province.





Both communes are considered micro-hotspots, important areas of the broader Mediterranean biodiversity hotspot. They share the following characteristics: (1) high density and diversity of vegetation with numerous endemic, medicinal and useful species; (2) large populations of plant collectors that supply Marrakech, national and in some cases international herbal markets; (3) large areas of communally-managed 'Agdals' (community conserved areas), forest domains and protected areas, and (4) a high extinction risk for local flora, which is under intense threat from multiple and interacting drivers including overgrazing, deforestation, infrastructure development, agricultural intensification, unsustainable exploitation and climate change.

This project addressed threats to the sustainable harvest of vulnerable plant resources in the unique and biodiverse High Atlas montane ecosystem. Drawing on Indigenous knowledge and practice, the project goal was to ensure that Moroccan medicinal plants are sustainably harvested and profitably cultivated, strengthening the ecological integrity of Important Plant Areas, subsistence practices of millions of rural and urban herbal remedy users, and commercial trade, thus improving the livelihoods of thousands of collectors, vendors and traditional practitioners. The project also sought to support Morocco's implementation of the Global Strategy for Plant Conservation (GSPC) while contributing to its efforts in achieving Sustainable Development Goals and meeting Aichi Biodiversity Targets by 2020.





Gary Martin explains a field pressing technique to students of Cadi Ayyad University and local community researchers in Ait M'hamed.

In depth ecological and floristic research provided us with a clearer picture of the current conservation status of plant biodiversity in both communes, while socioeconomic research allowed us to establish a robust baseline to ensure that our activities effectively alleviate poverty. *In situ* and *ex situ* conservation activities implemented helped ensure sustainable populations of vulnerable medicinal species while also sustaining plant-dependent livelihoods. A key outcome of the project was the establishment of thriving community plant nurseries in both communes. These act not only as *ex situ* conservation zones for medicinal and aromatic plants but also provide community members with income through the distribution of fruit and nut trees and useful plants, generating opportunities to transmit local knowledge and horticultural techniques while learning about innovative approaches such as drip irrigation. Ecological monitoring allows us to examine the impacts of our conservation actions and develop new conservation strategies, and the establishment of community herbaria and enhancement of national herbaria enhances Morocco's plant knowledge and research

