CITES & LIVELIHOODS CASE STUDY 2022

Harvest and trade of Candelilla in Mexico

MEXICO

CANDELILLA
Euphorbia antisyphilitica

Candelilla has been listed in Appendix II in 1975, when CITES came into force, under the family listing *Euphorbia* spp.

APPENDIX II

NOT ASSESSED

SPECIES, USE AND TRADE

Candelilla is a succulent plant that grows in the arid and semi-arid zones of the southern United States and north and central Mexico. It is harvested from the wild and its leaves are used to produce wax which is used to manufacture cosmetics, chewing gum, inks, dyes, adhesives, coatings, emulsions, polishes, and pharmaceutical products. Mexico is the only exporter of Candelilla wax, with 90% of the wax produced in the country exported to Japan, the USA, Germany, France and other countries. Candelilla has been listed on Appendix II since 1975 when the Convention came into force.

The main harvest occurs during the dry and cold months, from October to May, when wax concentration is highest in the plant and is largely carried out by local people known as candelilleros. Candelilleros tend to be from the lowest socio-economic background with minimal income. Mexico's main population of candelilleros is in the state of Coahuila, which produces around 80% of the Candelilla wax exported from the country. There are 50 private ranches where it is harvested but most come from about 230 ejidos (communally owned land areas) with estimates ranging from 3,500 and 20,000 candelilleros involved.

To legally harvest Candelilla, candelilleros need to hire forestry technicians to assess the site and sustainable harvesting levels as well as acquire a permit. Harvested plants are taken to simple or improvised constructions for wax extraction and the unprocessed wax (cerote) is then sold to processing and exporting companies.

Photo: Marco Granillo Chapa

LIVELIHOOD BENEFITS

Candelilla harvest and trade provide local people with employment and income-earning opportunities. Studies of selected candelilleros suggest that Candelilla harvesting and trade earnings may constitute up to 70% of their monthly income. Some also raise and manage livestock, and a minority have other agriculture, construction, or mining jobs to supplement their income. Candelilla harvesting and wax production is perceived as a male activity. Women usually accompany their husbands or heads of the family to the harvesting sites and bring food for them, but it is estimated that only 10-15% of harvesters are women.

Recognising that the Candelilla harvest generates the primary income for rural communities in Coahuila and to support the ejidatarios and their families, some refining/exporting companies provide financial support to some ejidos, including hiring the forestry technicians themselves to secure the necessary permits. They may also provide the infrastructure and chemical inputs needed to extract the wax. Nevertheless, there is a power disparity between the harvesters and buyers and sometimes cerote is purchased at what some consider an "unfair" price. Some companies reportedly threaten not to buy more cerote from communities due to having adequate stock, which in turn forces the candelilleros to further lower their prices. Health and safety are major concerns, related to sulfuric acid use during candelilla wax processing. Multiple processing sites have been observed without access to safety equipment or proper chemical storage facilities. Also, harvesters may have to travel long distances and/or camp overnight to access harvesting areas.

Despite this, if there were no opportunities to legally export Candelilla and trade its wax, national use/production is likely fall to a minimum, affecting significantly the livelihoods of many families throughout the Chihuahuan Desert and making it likely for many to leave their homeland to look for other job opportunities.

Beyond economic benefits, Candelilla harvesting helps reinforce traditional knowledge and cultural ties. The plant has been harvested for more than a century with knowledge of wax extraction and production passed on from generation to generation.

Photo: Marco Granillo Chapa

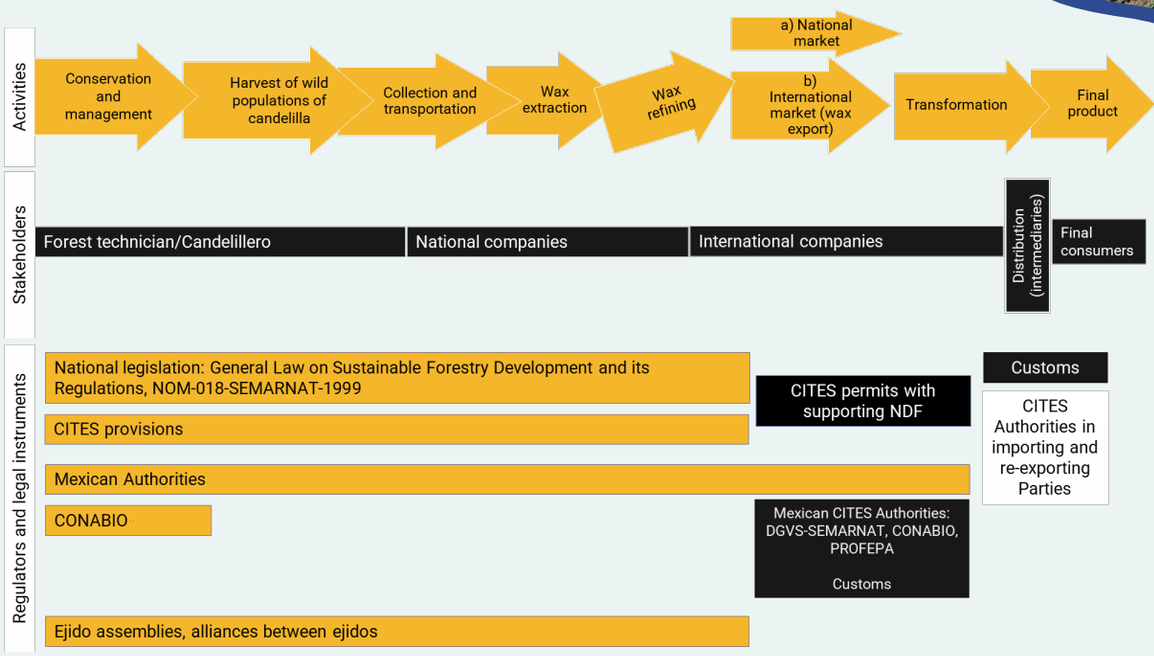

Figure: Supply chain of Candelilla wax, based on "Informative Guide for the Development of Technical Studies for the Sustainable Use of Candelilla within CITES provisions" (CONABIO, 2022).

CONSERVATION IMPACTS

The extraction of Candelilla cerote is an activity that only began around a century ago, and mass production boomed after the First World War. The demand on the international market caused some candelilleros in this state to harvest plants unsustainably. Although it is reported that wild populations have, overall, remained stable despite many years of harvesting, problems have occurred at the site level. CITES has played an essential role in regulating Candelilla management in Mexico and improving the sustainability of the trade. The prescribed harvesting method includes collecting no more than 80% of the biomass with the remaining 20% of the mature plants left untouched. When well-managed in this way, Candelilla populations can recover quickly; within two to four years post-extraction.

In addition to maintaining Candelilla populations, the wider habitat is also preserved benefitting both Candelilla and other species as well as conserving key ecosystem services.

LESSONS LEARNED AND FUTURE DIRECTIONS

Although Candelilla has been CITES-listed for many years, it was the potential of being subject to a Review of Significant Trade process that stimulated a change in management to avoid possible trade restrictions. In the case of Candelilla, the Mexican authorities were only made aware of the numerous improvements that had to be made to strengthen CITES implementation when the species was identified as a candidate for the Review of Significant Trade. Improvements were made possible through the joint work between multiple stakeholders, including national and subnational governmental authorities, local communities, academia, civil society, the private sector, and others involved in the supply chain. As a result, sustainable management has been vastly improved.

A remaining significant challenge is the lack of a fair distribution of benefits along Candelilla's wax supply/trade chain. There is a need to strengthen the species supply chain to transform it into a value chain with more benefits, particularly for local communities (ejidos) that directly manage this resource and whose livelihoods depend on it. There is an opportunity for utilising the voluntary certification schemes that enable equitable benefit-sharing to incentivise such change.

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