

INCENSE PRODUCTION MANAGEMENT TO CONSERVE FORESTS AND GENERATE INCOME FOR THE FAMILIES OF COLLECTORS

The sustainable harvest of incense in the Leco of Apolo indigenous territory

The incense trees of the humid montane forests north of La Paz in Bolivia, are an endemic species that thrive in stands known as "inciensales" at altitudes between 1,500 and 2,400 m above sea level. When the bark of the incense tree is cut it emits a high-quality resin appreciated by local communities for its ritual value.

An estimated 3,149 hectares of incense forest occur within the Leco Apolo indigenous territory - around 1.5% of the total territory. A harvesting management plan approved by the Ministry of Environment and Water covers 802 hectares (23% of the territory's incense forest), and establishes a collection rate, as well as the number and depth of permitted cuts for each tree. It also provides guidance for the care of saplings and young trees. The sustainable management of incense stands promotes the natural regeneration of the species and prevents its over-exploitation.

The families of Atén, Pucasucho, Santo Domingo and Sarayoj have collection areas within the stands, called "rumbeos", which are located in areas far from the communities. Each visit to the "rumbeos" lasts approximately six days. Before entering the forest, the collectors perform ceremonies asking permission to the Pachamama (Mother Earth) and the local deity (Jucuchi), as a form of protection and in order to have a successful harvest. The dried resin is collected in a container made of tola palm leaf and transported to the community where women, girls and children participate in the cleaning and sorting of the crystals of resin for sale.

Local communities recognize the value of forests for their livelihoods. Incense collection is a sustainable activity that improves the economy and contributes to humid montane forest conservation. It does not require the felling of trees and so conserves forest cover. Conserved forests protect watersheds and the diversity of wildlife, including woolly monkey, dwarf brocket deer, giant armadillo, and Andean cock-of-the-rock.



Eleanor Briggs/WCS

Income generation for incense collectors

For the Leco people of Apolo, incense collection is an important activity that provides a supplementary source of income to agricultural activities for about 40% of Leco families (68 of 161) in the communities of Sarayoj, Atén, Pucasucho and Santo Domingo. This work enables families to cover basic health, education, and transport needs. The Sarayoj community has the largest number of families participating in incense collection. Fourteen of these families form part of the Association of Incense Gatherers of the Leco of Apolo People (ARIPLA). The Association sets out to strengthen the sustainable management of the incense tree species and to ensure the collection and sale of incense for the benefit of collectors at a fair market price.

Incense is a vital resource for the Sarayoj families, as the commercialization of the extracted resin is the only forest based source of monetary income. Each collector family harvests an average of nine hectares. Data for 2015 and 2016 indicates that the average annual weight of resin obtained per collector is 17 pounds

Natalia Mérida/WCS



Mileniusz Spanowicz/WCS



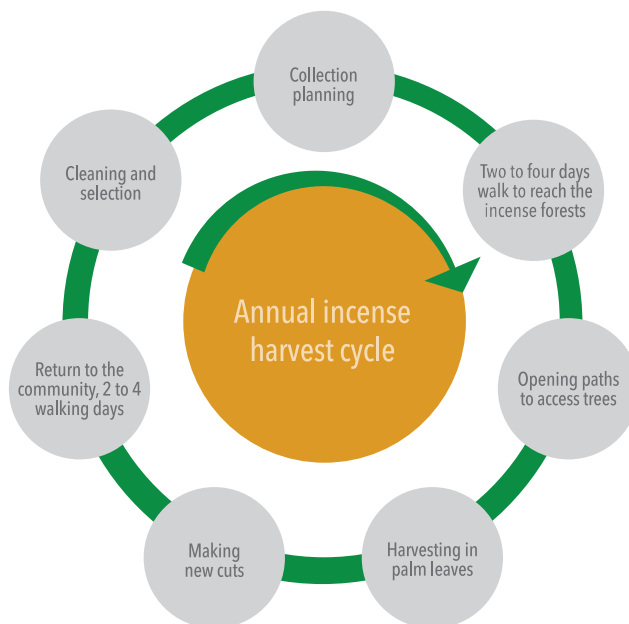
Mileniusz Spanowicz/WCS





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Incense harvesting process



(lb) for each entry into the forest. The remoteness of incense forests and the heavy weight of resin limit the opportunity to increase harvest volumes.

The incense collectors have two market options. One is the sale to local middlemen at a price of US\$10 per lb. Another option is the sale to intermediaries in Apolo, at an average price of US\$10.8 per lb. With the aim of supporting planned collection and better market prices for incense, the Sarayoj collectors attempted to improve the price by directly selling in the La Paz, Cochabamba and Potosi markets. In addition, collectors had access to an ARIPLA-administrated fund for the cash purchase of incense at a set price of US\$11.5 per lb of resin. Following commercialization (and once the costs and repositioning of collectors' fund were accounted for), any surplus profits were passed onto the collectors.

During 2015, 241.5 lbs of resin were sold, generating a gross income of US\$3,381, at an average price of US\$14 per lb, 20% more than the local price. During 2016, 244.5 lbs of resin were sold at a price of US\$14 per lb, generating a gross income of US\$3,423. In both years these profits were distributed among the gatherers, after discounting the commercialization expenses and the replenishment of the gatherers fund. These results confirm that the development, collection, and organized commercialization of incense enables the incense collectors of the Lecos indigenous territory access to better incomes.

INCENSE

INCENSE HARVEST RESPONDS TO THE LECO APOLO INDIGENOUS TERRITORIAL PLAN AND ENSURES FOREST CONSERVATION AND SUSTAINABLE LIVELIHOODS

The gathering of incense is traditional activity kept alive by indigenous communities of the Lecos of Apolo indigenous territory, where humid montane forests harbor valuable national heritage and culture. Incense is used in religious festivals, rituals, and purification rites, and its collection contributes to the conservation of forests whilst supporting local livelihoods.

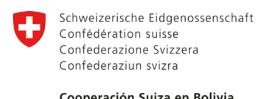
Incense collection areas in the Leco of Apolo indigenous territory

The importance of conserving incense forests

- Income generation that contributes to the economic welfare of indigenous families.
- Valorization of forests and conservation.
- Maintenance of a natural resource and the recuperation of traditional knowledge.
- Conservation of wildlife target species such as Andean bear, brown capuchin monkey, woolly monkey, and dwarf brocket deer, amongst others.
- Protection of watersheds vital for communities.



This study was carried out by the Leco of Apolo Indigenous People's Council (CIPLA) and the Association of Incense Gatherers of the Leco of Apolo People (ARIPLA). It was supported by Wildlife Conservation Society (WCS), the John D. and Catherine T. MacArthur Foundation, the Gordon and Betty Moore Foundation, the Civil Society Support Fund (FOSC) of the Royal Danish Embassy, and the National Bioculture Program/COSUDE.



Cooperación Suiza en Bolivia