

BEEKEEPING INITIATIVE for rural settlers in the AMAZON



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Beekeeping Initiative for rural Cooperatives in the Amazon region

Executive summary

According to the motto: “Use it or lose it!” this initiative is targeting the people who still live in the rainforest to encouraging them to live in a sustainable manner with and from the biodiversity surrounding them.

Beekeeping is a very old tradition that even the Aztec, Incas and Mayas were practicing. But the native stingless honeybees *Melipona*, that were used by these Indians are under the threat of the Apis species such as the Killerbee *Apis Africana*, that were introduced in the late 60ies and ever since conquer the continent.

The aim of the initiative is to provide the Amazonian settlers (especially to the woman) a low tech but reliable income source for their households with the endangered stingless bees.

The beekeeping is a very sustainable activity that fosters the fructification of the forest and the honey as its main product is a very healthy and nutritious good for the dwellers and its demand on the market is very high.

Although the production of a single comb is just about 4 to 6 litres a year, one household can produce about 400 litre of it, due to the easy and harmless caretaking. The price of *Melipona* honey is about 6 times higher than the regular honey. The current market price per litre is about 30 USD

In short, the beekeeping is a triple winner as the rainforest, the people and the endangered bees are gaining.

The Project Stakeholders

Along with the NTFP Foundation there are the following stakeholders involved:

- INPA (Instituto Nacional de Pesquisas da Amazônia)
The national rainforest research institute of Brazil (www.inpa.gov.br)
- GPA (Grupo de pesquisa com Abelha) a INPA branch for bee research.
- Sateré-Mawé Native Warana tribe, famous for the cultivation of Guarana and pioneer in Stingless Beekeeping
- Instituto Ekos Brasil is a nonprofit entity which operates in the planning and implementation of natural parks for the conservation of biodiversity and in the promotion of sustainability in productive systems in partnership with Brazilian and international organisations (www.ekosbrasil.org)
- University of São Paulo contributed in various expeditions to the inventory of flora and fauna and provided an entomological assessment in the region.
(<http://www5.usp.br/editorias/noticias/meio-ambiente>)

Development of the project

The project started in 2007 by providing training and beehive-starter-kits to the local population. At first the dwellers were sceptical dealing with bees but when they realised that they are stingless and produce wonderful honey, they started to embrace the project.

For the project management the NTFP Foundation sends a professional that accompanies the dwellers and its households during the start-up-phase. Currently we have about 150 beehives distributed to 20 households.

They already sell the honey in Manaus or to tourists passing by the region.

By the time when production will be high enough, we start a Company that buys the honey from the local dwellers to fair-trade conditions and sells it in various cities in Brazil, where demand is already high. The Export is not yet an option.

Analysis and justification of the Project

The rural settlers in the Amazon region known as *Trabalhadores rural* or *Caboclos* are more and more lacking an alternative to either abandon the forest for living in a slum or to deplete the rainforest resources.

This leads to the situation, which no one is enabled –not to mention motivated - to preserve the rainforest. To struggle against this trend, it is crucial to explore new ways for these settlers to gain their income from the rainforest in a sustainable manner. If they succeed in doing so, they are motivated to take care about this most sensitive and unique biosphere as well. One example of a promising product is honey.

To mention some of the outstanding criteria of the honey production:

- The production not only preserves the forest but increases its growth due to an increase in pollination.
- Honey is a very traditional and healthy product that was harvested ever since from the Amazonian Indians.
- The native Bees (*Melipona*, *Trigona*,...) are to be protected from their extinction due to the imported *Apis* Species such as the African Killerbees and the European ones.
- The Beekeeping doesn't require expensive materials and is simple work.
- To work with the sting less Bees is safe and therefore suited for woman and family business, so the earnings are received where it is needed the most.
- Good yield / effort relation
- One who lives from Honey production is interested to keep the rainforest as its resource intact.
- The honey production can be integrated in other activities

Honey as a product provides also some remarkable properties:

- It preserves well even under tropical conditions
- It can be easily transported
- It has a favourable income / weight relation
- It is healthy
- It can be used as food or for cosmetic or medicine purpose
- There is bee wax and propolis as a by-product for additional income.

Project goals

- To create the incentive for sustainable resource management as an alternative towards exploitation.
- To prevent rural exodus to gain the remote settlers as keeper and caretaker of the rainforest.
- To gather experience as a pilot project in the region.

In particular

- To create a new income source for the settlers in particular for women.
- To get access for the honey to the regional and the Fair-trade market.
- To achieve a yield of 300kg high quality honey in the first production period.
- Constant increase of the Honey production and expansion of the project towards other remote settlements

Duration of the Project

The project is on an ongoing base and there are no timelines set. After the initialisation period it will run independently and only its frequent monitoring will be maintained.

Costs

At present stage, a total of 140'000 USD was invested in the project.

Until the project reaches self-sustained level, the total costs might amount to 250'000 USD

Once this level is reached, similar projects throughout the Amazon region are planned for the remote settlements.

Beneficiaries

These rural settler Families are directly involved in the project and make also part of the Beekeeping initiative. The project aims to engage more and more participants.

It focuses on supporting the women due to their role as caretaker of the family. Over all there will be many different stakeholders involved from Handcrafters to Field technicians, to traders and so on.

Project management

The project management is carried out by the NTFP Foundation. The experienced project manager is planning and organising together with the Cooperativas the beekeeping training and the setup of the production. Once the production is running he keeps track of the sales and the development and applies to certification standards. The Foundation is operating on a non-profit base and all returns from the honey sales belong to the local dwellers.

The Beekeeping training and the beekeeping

A special role is given to the beekeeping researchers of the “Grupo de pesquisa com Abelha” (GPA). This Brazilian research team is dealing with the native Bee species that are under threat of the African Killer bee and the European Meliferas. The Amazon inhabits at least 200 known Species of the genus *Melipona* and *Trigona*. The GPA and the EMBRAPA conducts field studies for domestication of favourable kinds in order to prevent their extinction. One example is the *Melipona compressipes maonensis*, a sting less Bee that separates the honey from the pollen in different combs.

We prefer a strong representation of woman for the beekeeping training due to their duty of taking care of home and children. Those applicants will be equipped with a start-up kit, containing all the materials to create Bee colonies. These applicants are enabled to share their skills to their fellow villagers.

Every household gets as a starter-kit 3 beehives, each of them worth 150 USD.

When the beehive is strong enough, it can be split into two hives. That happens roughly 3 times per year. When the household is reaching 12 beehives, 3 of them go back to the project and are distributed to the next household. Our aim for the first phase is to get 50 households involved in the project. From there the initiative will spread on its own.

The risks

Production

In the production the Melipona Bees are known as very robust and immune against the common diseases of the Apis Bees. The only risk might be the concurrence of the Apis regarding the pollinisation resources. However it is little known about this issue yet. One positive fact is, that the Apis is not able to enter into the obscure forest like the Melipona does, because it gets lost without the sight of the sun.

Distribution

Of course the first Honey yields will be of small amount at the beginning and therefore the cost of distribution per litre is high.

Later on when production is sufficient, the Distribution is carried out by a profit oriented company, who is closely linked to the local dwellers.

Market

It is known, that China is flooding the honey market and therefore the prize of Apis honey is coming down. The Melipona Honey is a very small extra niche in the honey business and only small amounts of it are traded. Today the Melipona honey is about 5 times the prize of the regular honey. Until Melipona honey won't be treated as "just another honey", the price will be stable.

Due to the lack of information it is difficult to undertake a market survey.

First results

After some setbacks and hard learnings, the project is now among the biggest beekeeping projects in the Amazon region. It took some years until the project got popular among the dwellers. But now we even have a waiting list for starter-kits. The local population of Caicubi is one of the view remote settlements actually growing. When I first visited the place in 1995, there very about 80 people living there and its number was decreasing. Today there is a population of roughly a thousand people. There is a school, a generator for electricity and even a satellite phone network. The government is subsidising the community with the essentials but only a view people such as the teachers are actually employed and gain a salary. The majority is living as fishermen, hunters and gatherers. Most of them are self-sustained but never the less they are in need of some income. The beekeeping project so far is getting closer to meet its goals and helps the population to some decent earnings.

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Anex:

Map of the project area



The Project is situated in Caicubi, Roraima.

The direct distance to Manaus is about 330 km

The access from is only by River and is about 370 km

The journey by public ferry boat and local boat takes 2.5 days

Caicubi

The settlement with about 900 people, a school, electricity and satphone



BEEKEEPING INITIATIVE

Melipona beehive



A Meliponario of a household



BEEKEEPING INITIATIVE

Public ferry boat on the Rio Negro



In the rainforest

