

# BEEKEEPING IN THE ZAMBEZI: A FEASIBILITY STUDY

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Located in the Northeast of Namibia, the Zambezi region is rich in biodiversity. Most of Namibia's broadleaf woodland occurs in this region and is dominated by Mopane and Baikiaea woodlands. Amongst the vegetation found in the Zambezi region, are flowers that carry pollen that is ingested by insects especially the popular Honeybee as part of their diet. This eusocial flying insect is most considerably known for its construction of nests made from beeswax and their production and storage of honey. Honey is a substance that is created by bees after they ingest nectar, a sugary secretion from plants, obtained through regurgitation. Once ingested, they process it and store the substance into a honeycomb in a wild bee colony, or hives of domesticated bees. Honeycombs are created with the wax that is secreted by bees from a series of exocrine glands on their abdomens. The wax forms the walls and caps of the comb.

Beekeeping in the Zambezi Region gives communities from conservancies and community forests the potential of livelihood diversification and economic improvement.

The beekeeping feasibility study forms part of a larger project titled Zambezi State Forest support, the main goal of this project was to provide support to and address the immediate threats of the Zambezi State Forest Area and the Kwandu corridor and lay the foundation for the official designation of this critical area a recognised protected area. The beekeeping feasibility study is under the activity "develop the capacity of the surrounding community forest and conservancy and on the ZSFA forest resources under objective 3. The beekeeping feasibility study is under the project activity "develop the capacity of the surrounding community forest and conservancy and on the ZSFA forest resources under objective 3.

Dr. Ortwin Aschenborne, was approached to assist in implementing a bee project in the Zambezi Region, he recommended a feasibility study to be conducted to find out if beekeeping and harvesting honey is viable in this region.



Four different locations along the Kwando River were selected in Kwandu Community Forest. Taylor-made hives were suspended on a hanging scale and were erected. Bee swarms were bought from a local beekeeper that caught the swarms in the area. The hives were positioned close to permanent water, a food source (good vegetation), and

good security and away from humans and livestock. The weights of the hives will be recorded weekly, higher weights indicate the time of years when there is an abundant food source for the bees, therefore, increased honey production. Low weights will indicate times of the year where feeding will be required.

The feasibility should run for 1 year. COMON Foundation Phase 1 has ended Jan 2022. COMON Phase 2 began March 2022, under this project, the feasibility study will continue, and the expansion of beehives to take place. Ending 2023.



Beekeeping is an income supplement for subsistence farmers in rural Africa. This has been successful in many central and east African countries, establishing beekeeping enterprises, both for subsistence and commercial farmers, however, in Namibia no honey production is worth mentioning from local beekeepers. Several projects and organizations (both Governmental and NGOs) have invested in beekeeping but none of these projects has successfully resulted in honey production and revenue creation. The aim of this one-year trial in the Zambezi region is to determine the potential of honey production at 4 different sites as well as determine the management interventions required, specific for the region, to successfully implement beekeeping.



Farmers have been trained in basic beekeeping techniques and honey harvesting techniques. The first harvest was in March 2022, from the 4 beehives farmers made at least N\$6000 from the majority of their harvest. Any remaining honey is to be sold on a local scale.

With this ongoing pilot study, community members gain the advantage of receiving validated knowledge, strategies and sustainable practices in the field of apiculture. Raw honey is to be sold in Windhoek as well as locally with labels being designed as well. There are plans for the expansion of beehives for each farmer.