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Interim Report

Project Renitantely

Activities conducted from September - December 2017

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SEED Madagascar

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Project Renitantely has been working to develop beekeeping as a sustainable livelihood across six rural communities in southeast Madagascar's Anosy region. The project aims to increase the honey value chain, build the capacity of 48 beekeepers and enhance disease and pest management in the region.

Building Capacity:

Honey quality control training was delivered to 18 Project Year 1 (PY1) beekeepers in July, 2017. The training was designed by SEED's International Beekeeping Specialist and delivered by SEED's Local Beekeeping Technician. It ensured beekeepers can meet the quality assurances established in purchase agreements signed by *Honey & Soga* and *Natur'L*, thathoney must be clean and below 20% water content, andbeeswax must be clean. Consequently, beekeepers can demand higher prices for better quality honey from other buyers, gaining higher profits from little extra investment.

The workshops taught beekeepers the honey cleaning process, using locally available materials and delivered through practical demonstrations utilizing community apiaries. Following the quality control training, 100% of PY1 beekeepers had a full understanding of clean honey harvesting. Subsequently, all PY1 beekeepers have the knowledge and skills to access the most lucrative routes to the market offered by honey and wax retailers.

Following the establishment of purchase agreements with *Honey & Soga* and *Natur'L* in PY1, the income from beekeeping has dramatically increased. These new routes to the market have contributed to PY1 beekeepers receiving a mean increase in income of 102%. Through receiving higher incomes from beekeeping, beneficiaries of Project Renitantely have the financial capacity to diversify their livelihoods. This has reduced their reliance on subsistence farming, with just 48% of PY1 beekeepers citing rice and cassava farming as a primary occupation, compared to 94% at baseline.

SEED conducted beeswax production training, allowing beekeepers to add to their beekeeping income. Training on beeswax harvesting and cleaning was delivered by SEED's Local Beekeeping Technician to all 48 beekeepers in October 2017. The training employed practical demonstrations of wax harvesting, quality control and processing wax comb into a product that meets *Honey & Soga* and *Natur'L's* standards.

Following the training session 82% of PY1 beekeepers and 42% of Project Year 2 (PY2) beekeepers acquired at least a partial understanding of beeswax harvesting methods. A lack of access to required equipment was identified, specifically pans and sieves, which will be available through future equipment investment. Further collaboration and learning between beneficiaries is anticipated to improve beneficiaries' ability to harvest clean wax, providing a further source of income from beekeeping.

SEED's Local Beekeeping Technician began hive construction training by refreshing PY1 beekeepers in best practice, focusing on materials and methods used in construction. Project Renitantely hives are designed by the Local Beekeeping Technician using local, sustainably-sourced, affordable material- specifically eucalyptus. This ensures beekeepers can independently increase honey and beeswax yields through expanding their apiaries. Nails, bolts and wooden planks were distributed to the beekeepers and the importance of their efficient use highlighted.

Project Renitantely utilized the *Train the Trainer* model in teaching hive construction to PY2 beekeepers in October. SEED's Local Beekeeping Technician built the capacity of PY1 beekeepers in transferring their knowledge to motivated community members. This reinforces PY1 beekeepers understanding of hive construction. PY1 beekeepers applied their training and knowledge of hive construction to support PY2 beekeepers in building their first hives. Due to the practical nature of the training and the provision of materials, all PY2 beekeepers constructed a hive.

Disease and Pest Management:

Over the last six months, the parasitic mite *varroa destructor* has spread to all six target communities, detrimentally impacting the ability of every beekeeper in the region to maintain healthy honeybee colonies. SEED has subsequently distributed 50 doses of the government-directed treatment Apistan to each community, providing detailed training in its safe application and disposal.

Training was delivered in September 2017 following the *Train the Trainer* model. Given the importance of the training topic, SEED's Local Beekeeping Technician supervised all activities. An explanation of appropriate Apistan use reinforced PY1 beekeepers' knowledge, who then demonstrated its application to PY2 beekeepers in infested hives under the supervision of the Local Beekeeping Technician. Competency of varroa treatment amongst PY1 was lower than anticipated. This can be reasonably attributed to conflicting information provided by other NGOs and government agencies. SEED will continue to adhere to international best practice and through training will ensure all beekeepers are competent in Apistan use.

The sessions made use of Visual Learning Aids (VLAs), designed to communicate vital information while overcoming barriers of illiteracy and guarantee information is readily accessible in the future. VLAs included a diagram of varroa mites in the hive, a step-by-step guide to identification methods and varroa mite treatment application.

Collaborative Networks:

SEED has continued to share knowledge with members of *Platform de Miel Anosy*, attending a meeting in September to discuss barriers to beekeeping in Anosy. SEED shared experiences and insights into the issues GIZ (platform's founder) listed as faced by regional beekeepers. SEED attended further meetings with members, discussing weaknesses in regional varroa management, explaining its approach and highlighting the poor practice which had exacerbated varroa' impact.

A platform conference attended by SEED in November 2017, provided updates on routes to market available to members, who were informed of new export agreements amounting to 3,250 tonnes of honey. Members highlighted the need for improved beekeepers' productivity, with concerns that if demand is not met then these opportunities may be lost to more productive suppliers.

Currently, platform members are turning to SEED to provide direction as GIZ end their beekeeping project in Anosy. Multiple members discussed collaborating with SEED in steering the platform in a sustainable and Malagasy-led direction. SEED will continue to monitor the platforms' situation, offering appropriate leadership or support where necessary.

Future Action:

The next three months of Project Renitantely will see populating lost and new hives through transplanting wild colonies and splitting healthy colonies. SEED will improve the monitoring of beekeeping practices and motivation by reviewing the Traffic Light Monitoring criteria. Internal training following international best practice will further strengthen the teaching capacity of project staff to apply the *Train the Trainer* model. Equipment investment opportunities for beekeepers to trial and purchase beekeeping equipment will be provided. SEED is currently in the process of hiring a new International Beekeeping Specialist. Learnings on the spread of varroa and strategies for its treatment will be disseminated to regional stakeholders to improve understanding and facilitate coordinated regional action.

Over the remaining duration of PY2, one quarterly training session and a gender equality workshop with the wider community will be delivered in each community. SEED will support Honey& Soga to achieve export ratification and renew Memorandum of Understanding for PY3 with *Honey & Soga and Natur'L.* Before August 2018, 30 new primary beekeepers will be selected through the associate model with an aim to have at least 50% female representation.