Moving up the Apiculture Value Chain

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Name of Project: Diversifying the Apiculture Industry in Saint Lucia.

Name of Grantee: Iyanola Apiculture Collective

Total Budget: US$10,348
SGP Grant: US$4935.00
Grantee: US$ 4509 (Cash)
US$904.00 (In Kind).

Focal Area: Biodiversity

Planning Grant: Ended (Full Grant in preparation)

Background

Bees are excellent indicators of environmental quality and nature's chief pollinators, however, in Saint Lucia, like other countries, the bee population has declined due to anthropogenic and climate change factors. The varroa mite did its damage and climate change variability is confusing these persistent nectar collectors and many have swarmed.

In addition, the effective demand for honey has never been met in Saint Lucia and a 2003 paper on the status of the industy estimated that annual revenue could reach as high as US$ 17.5 million per year[1]. Apiculture can easily be integrated into rural livlihoods, as an employment, revenue and/or income source. To address these challenges and improve rural livelihoods, since 2012, SGP has supported several projects in apiculture with a budget of US$494,000 and aproximately 1.5 milllion in cash and in-kind co-funding.

Project Objective

The Iyanola Apiculture Collective comprise 22 members between the ages of 19-64, who have signiticant expetise in apiculture. Last year, the collective embarked on a plan to make a quantum leap to protect biodiversity and augment their revenue by moving up the value chain from basic bee-keeping to apitoxin, pharamacutical creams and apitourism. To help the collective develop their business plan and a proposal for a regular SGP project, the collective received a planning grant from SGP.

Key activties and Innovations

The planning grant enabled the group to dispatch samples of honey from different parts of Saint Lucia to the PARMA Institute in Martinique, France. The other key activties of the planning grant were conduicting an assesment and financial analysis of a new niche market for Tourism in Saint Lucia, and experimenting with high nectar producing plants.

Results

The honey met the standard for exporting to the European Union, a major achievemen; the largest tour opeartor in Saint Lucia was instantly attracted to the idea of apitourism; the financial analysis was very positivel and christophes were confirmed as a high nectar poducingt plant. Now, SGP awaits the Full Grant proposal in the second semester of 2019.

Meanwhile, the members of the collective are also implementing another project with funding from Japan Climate Change Resilience Fund, thus building on one of the cocnluions of the Planning

[1] https://www.apiservices.biz/en/articles/sort-by-popularity/926-assessment-of-the-apiculture-industry-in-st-lucia-west-indies-2003

Grant. The group is studying the bees of Saint Lucia to identify the species on the island; select the best lines of bees for breeding; and monitoring the selected hives using state of the art electronic hive monitoring systems, which will upload to the cloud. Variables such as hive weight, brood temprature, acoustics and apiary climatic conditions will be uploaded 24 hours a day. They are also promoting the planting of higher nectar producing plants. This intergrated strategy is a significant part of the approach to achieving a sustainable apiculture industry in Saint Lucia wihin this era of Climate Change.

Partnerships

To achieve its objectives, this project is partnering with the Inter American Institute for Cooperation on Agriculture (IICA), the Food and Agriculture Organisation of the United Nations (FAO-UN), and with experts from the United Kingdom and France. The Collective is wisely learning from these experts and also helping to train other Saint Lucian apiculturists.

Projected results:

Environmental

The main environmental result is to conserve biodiversity through apiculture by investing in research and creating Higher valued products and api-tourism.

Socio-Economic

Crude apitoxin will be harvested for export to Europe with an estimated value of US$30 to US$70 per gram. Processed apitoxin (99.9% purity) accompanied with HPLC[2] batch analysis will be exported to Europe & USA with an estimated value of US$100 to US$ 300 per gram. The projected Increase in Revenue is US$103,000 in 2020 to US$113,000 in 2021 and US$124,000 in 2022. This revenue will come from honey, apitoxin, therapeutic cream and api-tours. The projected increase in employment is 15 in 2020, 25 in 2021 and 38 in 2022.

Capacity Development

The Collective's Apiaries (20 apiaries and 200 hives) will be elevated to centres of training excellence for young Saint Lucians. The technical/scientific and financial aspects of apiculture will be married into an interactive curriculum where students of all levels can learn.

Lessons Learned:

- ***A research programme is not an option but an existential requirement*** for the continued success of apiculture, particularly as climate variability affects the bees.
- ***Moving up the value chain will result in the modernization and further monetization*** of the apiculture industry in Saint Lucia.
- ***Developing and nurturing partnerships with overseas experts is mandatory*** for the growth, development and the rate of learning that is required in this dynamic world of climate change.

[2] High-performance liquid chromatography