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In cooperation with

Heritage
Honey **forest**
foods



Seeing is believing. Hives set up in a project participants' coffee garden, directly increased public/ community acceptance of beekeeping as a safe livelihood activity.
© Forest Fruit Foods



COFFEE INNOVATION

Integration of Beekeeping into the Banana Coffee Grower Communities, to increase Pollination and Coffee Yields

🔥 CHALLENGE

Uganda is a top three producer in the world of banana and top four for coffee. With growing cultivation areas to increase revenue and increased use of pesticides, bees and other pollinators are facing increasing habitat pressure and natural populations are declining. Declining pollinators also endanger coffee production because much of Uganda's production is robusta and does not self-pollinate. A mismatch, either in timing or volume, between pollinators and two to three weeks when robusta coffee flowers, impacts the yield and cup quality. Other stakeholders want to increase production and recognize the need to increase yield. But while they have looked at varieties, fertilizer, and other interventions, they have not considered pollinators.

🔥 COMPANY DESCRIPTION

Forest Fruit Foods is the largest processor of banana juice in East Africa, and is seeking to develop other agriculture-sourced products for export (e.g. honey). They also market and distribute these products.

INNOVATION

BEE-COFFEE-BANANA BELT: MIXED CULTIVATION TO MAXIMIZE INCOME AND PRODUCTIVITY

This innovation leverages the existing intercropping of banana and coffee, and increases yields by increasing pollination rates as well as producing another valuable product, honey.

Forest Fruit Foods directly challenges the three main barriers to successful apiculture in Ugandan coffee and banana farms:

1. Availability of beekeeping technology
2. Danger/ fear of injury and bee-related fatalities
3. Access to panafaneria (creates hives)

This project seeks to make beekeeping a normal household livelihood activity, which also benefits the surrounding community. Forest Fruit Foods then purchases and processes the honey, providing important income to families.

KEY COMPANY STATS

NUMBER OF PRODUCER PARTNERS

50+ households

NUMBER OF STAFF

Eight

🔥 COST

COSTS

Farmers normally pay for equipment and for beekeeper services, but for the pilot this was subsidized by the German Federal Ministry for Economic Cooperation and Development (BMZ) through Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

EFFECTS ON YIELD

Could not be determined

🔥 PREPARATION

TIMELINE

There are no long lead items, but it is important to align your intervention with the beekeeping calendar.

STAFFING REQUIREMENTS

Apiary owners and beekeepers are required but are generally present in the community and no additional staffing is required.

MATERIALS AND EQUIPMENT

- Land in each community (which can be provided by a farmer or community, e.g. empty warehouse, public land, church or school yard)
- Hives (constructed from locally available materials) which need to follow some design principles
- Bees (starter colony)
- Beekeeper (service provider) – they need to have a mobile phone to coordinate with the factory

🔥 LESSONS LEARNED

CHALLENGES

- The causal link between bees and increased yields is not clear to farmers, so they may not recognize the value of the intervention.
- It takes time for results from increased pollination to be realized in terms of higher yields.
- Delays from procurement meant that excitement and momentum created in communities during socialization was lost.
- Bees are seasonal – one needs a local beekeeping calendar, and to match that bee calendar with the funding calendar.
- Funding failed to fully cover the cost of the project.
- The end of the project is a glass cliff unless you (the company) prepare for it.

TAKEAWAYS

- Smaller apiaries do not necessarily have large enough yield to sell to the factory, but they use the beekeeper to aggregate and set a price.
- Honey is sometimes kept as stock/ savings since it maintains value.
- Projects come and go, and some communities become disillusioned by the process and need to see the benefits before they will join.
- Keeping costs for farmer and family participants down, keeping the erection of bee houses very basic and seemingly easy for households to replicate and ensuring there are locally available equipment really helps uptake.

RESULTS: FOREST FRUIT FOODS LTD. (UGANDA)

As a result of Forest Fruit Foods's project:



Honey harvesting time. FFF extension staff reach out to harvest at the project participants apiary in Tungamo District. © Forest Fruit Foods



400 HIVES
were established



400 HIVES
were established



OVER 500 KG OF HONEY
was produced in the next year and now



There is demand for
**BETTER HIVES IN
THE COMMUNITIES**



Distribution of hives subsidised by BMZ and GIZ. © Forest Fruit Foods

How to replicate this model for other regions:

STEP

1

Look at communities with beekeeping experience and/ or need for livelihoods and pollination (foliage, need a dry season, etc.)

STEP

2

Reach out to experienced beekeepers and learn from existing practices, understand the needs in terms of access to equipment, protective wear, someone willing to do it

STEP

3

Cultivate beekeepers – access to the market (who will buy it)

STEP

4

Build into your model that you will not capture all of the honey

STEP

5

Get partnerships with people and organizations that do outgrower and farming schemes (have farmers, infrastructure etc.)

The COFFEE INNOVATION FUND has been developed and funded by the German Federal Ministry for Economic Cooperation and Development (BMZ), and implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

MISSION: The Fund's objective is to increase the profitability of smallholder coffee farmers, and foster greater, more equitable value distribution along the supply chain through promoting innovative farming systems, transparent and inclusive business models, and access to new markets.

Contact details:

Kano Naijuka

Forest Fruit Foods

T: +256702413736/ +256785403021

E: forestfruitfoodsltd@yahoo.com, forestfreshmanufacturing@gmail.com



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Deutsche Gesellschaft für

Internationale Zusammenarbeit (GIZ) GmbH

Registered Offices:

Bonn and Eschborn, Germany

Friedrich-Ebert-Allee 32 + 36,

53113 Bonn

T +49 228 44 60-0

F +49 228 44 60-17 66

E info@giz.de

I www.giz.de/en

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Editors:

Coffee Innovation Fund

Forest Fruit Foods Ltd.

Jen Green, Indonesia

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Shenny Purwadi, Jakarta

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