

# Searching for Local Solutions to Increase Access to Extension Services: The case of smallholder beekeepers in Kamwenge District

|   |
|---|
| <b>Author: Felix Kazahura</b>                   |
| <b>Country: Uganda</b>                          |
| <b>Sector: Economic Development/Agriculture</b> |

## CONTEXT

Globally and locally, demand for bee products far outstrips supply, as honey, propolis and beeswax are increasingly used in the nutrition, pharmaceutical and cosmetic industries. To address the gap between supply and demand, the Government of Uganda and other stakeholders have invested in the apiculture sector. Nevertheless, the sector has not been able to grow fast enough to keep pace with demand. Local dealers report inadequate and intermittent supply of honey as the biggest challenge in the honey sector. For example, the EU offers the largest market for honey in the world, yet although Ugandan honey was first listed on the EU market in 2005, it has never exported honey to Europe. Indeed, Bee Natural Uganda (BNU) in West Nile has the capacity to process 600 metric tonnes of honey annually, but due to low supply it only processes between 100 and 200 metric tonnes of honey per year. With a ready market and favourable environment for beekeeping, why is the Ugandan apiculture sector not growing faster?

In 2010, the working committee of the Rwenzori regional multi-stakeholder platform (MSP), which included entomologists and the area's three largest producer groups—Bunyangabo Beekeeping Community (BBC), Kamwenge Beekeeping Community (KABECOS) and Kabarole Beekeepers Association—identified four key constraints to increasing production:

1. Poor agronomical practices, such as limited inspection of hives, inadequate water and forage (nectar), an inability to determine proper harvest time and an inability to control pests;
2. Use of outdated technology, such as inferior hives that are harder to colonise;
3. Weak producer groups;
4. Limited access to financing.

Although several of these constraints could be addressed with extension training, farmers have little access to such services. During the 2009 Rwenzori Beekeeping Competition, it was reported that less than 10% of beekeepers in that region had been visited by an extension worker of any kind in the previous two years. Government extension services targeting beekeepers are almost non-existent and most district-level entomologists focus on destructive insects such as tsetse flies instead of productive ones such as bees. Funding for extension services to beekeepers is very low.

Without extension services, farmers cannot increase their beekeeping knowledge and skills and will continue to produce an inadequate supply of honey for the market, resulting in low incomes for both farmers and processors. Innovative ways of providing extension services to beekeepers were critical, according to the MSP. Thus, SNV Netherlands Development Organisation helped design a farmer-led extension service model to provide smallholder members of KABECOS with technical support.

## CLIENTS & PARTNERS

KABECOS is a registered savings cooperative with 439 members (not all of the members are beekeepers—some are pineapple growers) focusing on apiculture. KABECOS provides financial services through its savings scheme as well as

market information through its rural information system. Although it has been in the beekeeping industry for about five years, by June 2010 it did not have any honey on its shelves. Through an organisational self assessment coupled with results of the systemic analysis by the regional MSP, it became apparent that production was very low, with about 60% of farmers' hives uncolonised (due to limited knowledge of appropriate techniques) and therefore unproductive. KABECOS itself was not strong enough to improve its members' skills as it had no mechanism for linking with its membership. Although by June 2010 a new board had been elected, there had not been a handover process and members of the board had not been orientated to their roles.

SNV focussed on facilitating two interconnected processes. First, it wanted to strengthen the internal governance of KABECOS to provide oversight and leadership to the organisation's members. Second, it sought to design an extension model to enable farmers to access extension services. It contracted two local capacity builders (LCBs) for each intervention. Regional Capacity Building Partners (RECABIP) led board and management orientation while Effective Skills Development Consultants (ESDC) worked on the farmer-led extension model. To support these processes, a UK-based charity, Bees for Development, provided funds to KABECOS for staff salaries as well as an interest-free loan of about USD \$1,300 to stimulate supply. It also provided a grant of two million Ugandan shillings to stimulate honey procurement and seconded a business development officer to KABECOS.

As a result of the SNV intervention to improve governance—as well as support from Bees for Development—KABECOS has a functional board composed of six men and three women that meets every two months to provide support to management. It has conducted a financial audit and is in the process of organising an annual general meeting, its first in three years, so that leaders can be held accountable by the general membership.

Meanwhile, the farmer-led extension services model was premised on four basic assumptions. First, most farming skills are not complex, so farmers can easily learn them and pass them on. Second, farmers learn better from fellow farmers with whom they can easily relate. Third, effective extension services should be readily available and easy to access. Last, farmers learn better with hands-on approaches than theoretical ones.

Based on these assumptions, SNV requested that KABECOS select five practicing beekeepers to serve as core farmers by hosting learning centres. The selected farmers had to use a mix of hive technologies (Kenyan Top Bars, Langstroth and local hives) so the learning centres could provide an opportunity for beekeepers to compare various techniques.

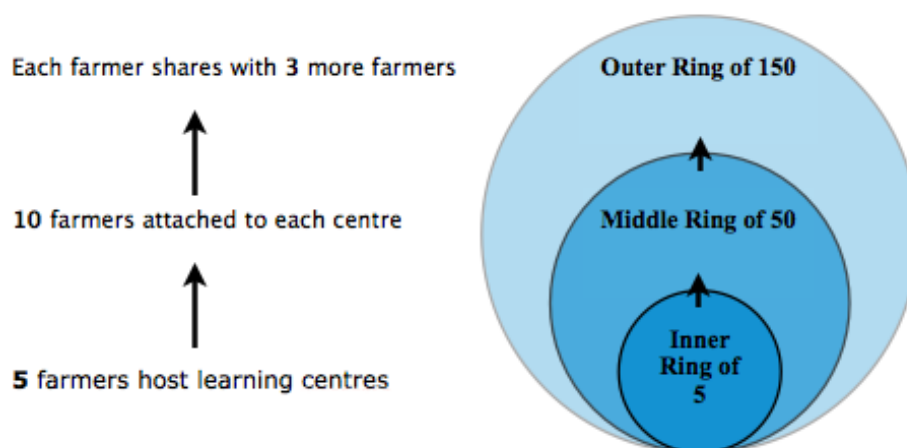
Each of the five farmers was required to host and support a group of ten other practicing beekeepers who in turn were expected to pass knowledge to three additional farmers. Thus, the model had an inner ring of five beekeepers, a middle ring of 50 and an outer ring of 150—a total of 205 KABECOS member farmers. At the start of the intervention, ESDC held a meeting with all 55 farmers in the inner and middle rings to determine their knowledge gaps. Based on the gaps identified, ESDC and the farmers agreed to a coaching and mentoring curriculum that focused on setting up apiaries, controlling pests, strengthening weak colonies, identifying and multiplying appropriate forage, maximising hive colonisation, improving safety standards and increasing the number of hives in each farmer's apiary.

Each month, the LCB visited the five learning centres and used a core theme from the curriculum to coach and mentor middle and outer ring members. Attendance ranged from 25 to 40 farmers. The LCB and the farmers would jointly identify the challenges at the learning centre and use the apiary to practically explore appropriate interventions. On each visit, the LCB would also visit at least half the

apiaries of the 10 middle ring farmers to check if the learning was actually being transferred to their own apiaries, providing advice as needed.

Farmers were advised to visit the learning centre at any time to monitor changes taking place at the apiary. Every two months, the inner and middle rings together with the KABECOS board would come together to review progress, share learnings and agree on appropriate measures to take. In the course of the coaching and mentoring process, SNV organised a learning visit to BBC, a sister organisation, to reinforce the learning process. The first phase of the intervention lasted from September to December 2010 and the second phase from February to June 2011.

**Figure 1: Structure of farmer-led extension services model**



## OUTCOMES

The intervention has had the following outcomes:

- 205 farmers (30% of them women) are now linked to each other and have access to extension services.
- About 60 farmers now supply honey to KABECOS, while some are selling to other markets. KABECOS supplies honey to local supermarkets in Kamwenge and Kabarole as well as to Tusky's Supermarket in Kampala.
- The farmer-led extension model has provided a mechanism for KABECOS to link and mobilise members.
- All 55 farmers in the inner and middle rings of the extension model have fenced and cleaned their apiaries and planted flowering plants to increase their source of nectar (forage).
- Colonisation rates among the 55 inner and middle ring farmers are now at 70%. Among the 150 farmers in the outer ring, rates have increased from about 45% to 65%.
- With money from Bees for Development, KABECOS provided the five learning centres with protective equipment and buckets to transform them into honey collection points, two of which are operated by women.
- The farmers have adopted a record-keeping system to track honey produced at farm level.
- The number of hives per farmer has increased from an average of six hives to eight. In the Busiriba learning centre alone, the number of hives increased from 218 in November 2010 to 371 by June 2011.

## IMPACT

In June 2011, KABECOS bought 1,738 kilograms of honey from its farmers, compared to 605 kg in December 2010. Based on current projections, production will surpass 3,000 kg by December 2011. Gross income to KABECOS has increased from 6,050,000 (€1,770) to 17,380,000 Ugandan shillings (€5,085) and is projected to reach 30 million (€9,000) by December 2011. Most of this money goes directly to smallholder beekeepers, improving their household incomes. The following stories best illustrate the impact of the intervention on farmers' livelihoods:

In 2008, Francis, a beekeeper in Nkoma Parish, received five Kenyan Top Bar (KTB) hives and two catcher boxes from an aid agency, which supplemented the 20 local hives he owned. Before SNV's intervention in September 2010, all of his KTBs and 15 of his local hives were colonised. He was harvesting 8 to 10 kg of honey per year, earning about 40,000 shillings (€12). With the expertise he learned from the LCB during the intervention, by the end of April 2011 he had used his own resources to buy an additional five KTBs and five local hives. He had taken good care of his apiary and planted flowering plants to provide forage to his bees. He harvested 51 kg of honey in February 2011, earning 210,000 shillings (€61), which he used to pay school fees for his six children.

Mugisha started beekeeping in 2004 with five hives, but never sold honey from his apiary, instead eating the little he produced. As a result of the SNV intervention, Mugisha has increased the number of hives he owns to 19 KTBs. In March 2011, he harvested 12 kg, for which he received 48,000 shillings (€14). The improvements to his apiary have inspired him further. With his basic carpentry skills, he has begun making his own hives using existing KTB technologies. His target is to own 30 KTB hives before the end of 2011.

## LESSONS LEARNED

The following lessons can be learned from the intervention:

- Farmers are creative. They synthesise the knowledge they receive and develop innovative solutions to their problems. For example, Francis (quoted above) studied the KTB design and created his own hive that is a cross between the typical KTB and the "box-traditional hive". Meanwhile, farmers in Busiriba developed their own model to increase hives by pooling resources. They each contribute 4,000 shillings (€1) per month (equivalent to the cost of one local hive). This money is used to buy 20 hives for two of their members per month. Such innovations were not part of the original design of the extension model.
- It is important to determine clear baselines for the participants and take part in the farmer selection process. Although there were clear criteria for KABECOS to select participating farmers for the extension training, SNV later discovered that some of the farmers in the middle and outer rings did not have hives, which slowed the learning process for practicing farmers.
- It is cheaper and more convenient to meet the farmers at learning centres in their community than to bring them to a district headquarters for a training. Most importantly, farmers get the opportunity to learn by doing within an apiary through sustained contact with the facilitator.
- The client organisation should be at the centre of the learning process. KABECOS has few staff, which limited the organisation's leadership to fully benefit from the knowledge acquired during the intervention.

## SUSTAINABILITY

The intervention is sustainable because KABECOS is institutionalising it as part of its service package to members. Furthermore, KABECOS is using the learning centres as honey collection points for other interventions, ensuring that they remain in use.

## STANDARD DATA

|   |   |
|---|---|
| Start and end date of Memorandum of Understanding     | 2008 - 2010   |
| Assignment Agreement                                  | 1 <sup>st</sup> January 2010 – 31 <sup>st</sup> December 2011 |
| Composition of SNV team                               | Felix Kazahura, Marieke Van Schie, Edward Makobore            |
| Number of primary process days SNV advisors till date | 43.1 PPD  |
| Number of primary process days LCB till date          | 71 PPD  |
| Involved partnerships                                 | Bees for Development, RECABIP, ESDC                           |
| Financial resources invested (except PPD)             | Ugx 32,000,000 (€9,800)                                       |