



# Strengthening Extension Service Delivery to Smallholder Beekeepers: Lessons from ASPIRE

## Background

The government of Ethiopia is committed to increasing agricultural production to meet the growing demand for food, industrial raw materials, and foreign exchange earnings. In order to respond to these demands, there is a need for a dynamic and proactive agricultural extension system that will bring about agricultural transformation.

The Ethiopian agricultural extension system is heavily dependent on Farmers' Training Centres (FTCs) and development agents (DAs), who provide extension services to farmers.

Using both FTCS and DAs, the ASPIRE project is focused on developing an effective and efficient extension service for the apiculture sector.

## The goal

The aim of the ASPIRE extension service is to use the skills and knowledge of trained apiculture experts so that they can facilitate the adoption and spread of modern beekeeping technologies and bee management practices, and provide support and coaching to other beekeepers.

## The solutions

Central to the ASPIRE extension approach is the use of 'lead beekeepers', who provide technical assistance to 'follower beekeepers' in their localities.

Initially, 89 lead beekeepers from four regions (Oromia, Amhara, Tigray and SNNPR) were selected based on their existing beekeeping practices and their interest in supporting others. These beekeepers were trained in modern beekeeping production techniques. During their training, an agreement was made with the lead beekeepers that they

would each work with between 15 and 20 follower beekeepers. In addition, 150 woreda apiculture experts (of whom 51 were females) were selected from the four target regions and trained as trainers. ASPIRE also trained and coached 1,414 (279 female) DAs and subject matter specialists (SMSs) nationally using the ASPIRE minimum training package. The trained DAs and SMSs were coached by the ASPIRE technical team to provide support to beekeepers in their respective working areas. FTCs were also used by the ASPIRE project as demonstration and practical training centres.

## The results

The field survey results and secondary data indicate that the ASPIRE project reached a large number of beekeepers in a short period of time. About 31,376 beekeepers (6,573 female) were trained using the ASPIRE minimum training package. These trained beekeepers provided technical support to about 33,290 (6,568 females) copy beekeepers. The average number of copy beekeepers per 30,000 targeted beekeepers increased from 0.38 in 2013 (base year) to 4.08 in 2017.

This increase is an indicator of the multiplier effect of the ASPIRE approach. Specifically, the lead beekeepers supported other beekeepers in making transitional beehives, transferring colonies and seasonal management. For instance, 21 lead beekeepers in Tigray region trained 327 new copy farmers to start beekeeping businesses; 443 beekeepers were helped with splitting; 566 beekeepers with transferring colonies; 691 beekeepers with honey harvesting; and 964 beekeepers with bee colony management.

Following the training, most beekeepers adopted improved apiculture technologies, such as increasing the number of beehives (mainly transitional and framed), and improving apiary management, bee inspection and harvesting practices. Around 204 demonstration sites/FTCs were used as hubs for knowledge and information sharing, as well as acting as practical training centres for beekeeping in the project areas.



Beekeepers received different extension materials from the ASPIRE project team, such as a production manual, posters and pamphlets. The beekeepers mentioned that the extension materials clearly illustrate different aspects of beekeeping in picture form, thereby allowing any illiterate person to easily understand them.

One of the impacts of the ASPIRE project has been the upgrading of skills and knowledge of the apiculture extension personnel at different levels. Both the training and coaching helped in building the capacity of the SMSs and DAs. Specifically, combining business skills with the technical skills of beekeeping is an aspect that has been successful in the commercialisation of beekeeping activities.

### Lessons learned

- The 'lead beekeeper' model is an effective and proven extension approach that reaches people who are located remotely, and does so in a short period of time.
- Almost all farmers who are living in ASPIRE target kebeles are now keeping beehives. The practical skill-based training given to the farmers, as opposed to through extension agents, is an effective model that can be easily scaled-up in any farmer-level extension system.

## Case study: Lead beekeeper, Abduslam Haj Beshir

Abduslam is a 44-year-old who lives in the Goma district of Jimma, Oromia. Supporting a family of 12, he cultivates four hectares of land (three hectares of coffee and one hectare of field crops).

Abduslam owns 45 modern beehives, 40 transitional hives and 25 traditional hives. He has also constructed an additional 10 modern beehives and 50 transitional hives in preparation for next season.

The ASPIRE project provided Abduslam with comprehensive training, mainly on bee management, queen handling, multiplying bee colonies, constructing transitional beehives and colony transfer. ASPIRE also provided him with equipment, including smokers, bee veils, gloves, brushes and knives.

Abduslam has more than 60 followers, and is sharing with them the skills he has learned from ASPIRE. His followers include 20 young people, as well as numerous farmers who live outside his kebele. One of his followers, Oumar Abeba, has 30 modern hives, 10 transitional hives and 50 traditional hives; another, Mohamed Sheki, has 20 modern, 10 transitional and 15 traditional hives. Some of these followers have themselves started training other farmers in how to run beekeeping businesses.

Currently, Abduslam produces around 2,350kg of honey annually (1,500kg from modern hives, 800kg from transitional hives and 50kg from traditional hives). With the income he has earned from beekeeping, he bought a honey extractor (which his followers also use), a minibus and a motorbike; established a wood workshop with all the machinery needed to make modern beehives; and constructed a modern family home in his village.

Abduslam recommends apiculture as an ideal source of income for young people and for those households with little land to cultivate.

