

Creating A Successful Beekeeping Development Program

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10 Rules, And Over 60 Guidelines To Follow, From Experienced And Successful Program Developers

Introduction

Many beekeepers and bee researchers desire to improve the lives of others through beekeeping. You may have met beekeepers while travelling. Or perhaps you are involved with a church-based organization or social group that believes that beekeeping will lead farmers and their communities out of poverty. Despite people's best intentions to help, efforts all too frequently miss the mark and fall short of the original goals. In surprisingly many instances, beekeeping projects actually cause financial hardship to the very people they were intended to help.

We collectively have had experiences with beekeeping communities in nearly a hundred countries on every continent except Antarctica. We have been involved in highly successful beekeeping development projects as well as some with limited impact. We have reviewed training efforts conducted by others that have achieved widely differing levels of success. Through our experiences we have come to recognize some of the key components of successful projects. We share these here as a brief guide to beekeeping development. Below is our checklist of factors that we believe contribute to the success of beekeeping projects.

1. Learn about international development

- "Beekeeping development" usually involves income generation, yet goals also should include capacity building of trainers and trainees, a process that is continually evolving. Capacity building should be

viewed as a central part of development processes.

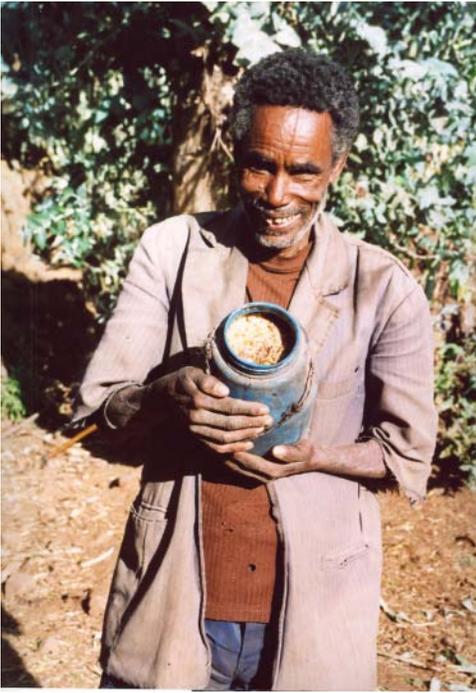
- All projects start with goals. The "project approach", with narrow goals upon which all attention is focused such as "training 50 beekeepers to produce 500 kg of honey", has proven to be unsuccessful time and time again.
- "Success" should be defined in terms of what the participants want from the project. For example, while we may focus on increased income generation, our partners in developing countries may be more concerned with greater well-being, higher

status, empowerment within their society, increased gender equality, or stronger communities.

- A central goal should be that project activities should be self-sufficient by the time all funds have been spent. Projects built upon continual infusion of money or technical expertise will fail once interventions cease.
- There is a large body of literature on effective development practices. Learn from the enormous gains in international development practice that have been achieved over the past half century in order to avoid common



Colonies of stingless bees kept in hives made from hollow logs or timber planks are a normal part of rural livelihoods in El Salvador. These people will be helped most, not by changing the technology of the hives, but by ensuring that maximum income is gained from sale of the honey. When interviewed, the beekeepers state that their major constraint is lack of forage for bees, and therefore a planting scheme for bee trees would be appropriate.



A beekeeper in Ethiopia. Lack of adequate containers to store and market honey is a common constraint faced by beekeepers in many countries. Importing containers is not satisfactory - people need local solutions to their problems. Projects can help to identify resources, make contacts, and find ingenious ways to recycle.

mistakes. A good starting point is one of the practical books by Robert Chambers.

2. Gain understanding of local development processes

- You are not the first person to think about improving incomes and livelihoods through beekeeping! Find others who are

knowledgeable with whom to discuss your ideas. Search the internet for information about previous beekeeping projects in the region where you hope to work.

- Learn about and seek to understand local beekeeping knowledge and practices from the outset; to do otherwise is arrogant and disrespectful.
- Allow communities chosen for beekeeping activities to self-select participants – within the participation targets that may have been set for the project externally by you or the donor agency.
- Develop daily activity schedules, community maps, group discussions, and other participatory techniques that involve active participation by the trainees, to better understand the communities and to enhance the relationships between trainers and trainees.
- Mistakes will happen and should be expected as part of the learning process for you, the trainers and the trainees. Accept and learn from them.
- Encourage feedback and discussion in all activities. Consider the feedback, and always strive to reach collective decisions about future activities and changes to existing practices.

3. Understand the local culture

- Learn about the local culture

surrounding the production and use of honey.

- Is there a tradition of beekeeping or honey hunting? What practices are used? How can those be enhanced through training or other activities? Introduction of completely novel practices will be difficult if not impossible, and may be undesirable. In many parts of Africa and Asia, honey comes from wild colonies of bees – not from bees kept in hives. There may be very good reasons for this, such as seasonal absconding, that affect the economics of keeping bees in hives.
- How does beekeeping fit within the local culture (i.e., religion, gender roles, etc.)? For example, in some settings men work away from home, so training must target women.
- Donor agencies may set criteria (targets of youth or female participants) that may be unrealistic. You need to discuss your proposal with the recipients and the donor: never agree to targets that are unachievable.
- Is there informed desire to participate in beekeeping training? In other words, do the potential participants fully understand the benefits and risks? The trainers and promoters must explain what participants should realistically expect with respect to honey yields, colony absconding, pollination of their crops, costs associated with bees



The Asian honey bee Apis cerana is gentle and largely disease free. In most Asian nations, Apis mellifera of European origin have been introduced, and large commercial enterprises are based on beekeeping with this species. Nevertheless, for small-scale beekeepers, the indigenous bee requires little maintenance and its honey is everywhere more highly prized, and highly priced, than honey from Apis mellifera.



Where large trees and wild-nesting honey bee colonies are still present in sufficient numbers, people still “hunt honey” by climbing trees and plundering honey from nests. The nests of Apis dorsata, and the honey hunters’ scaffolding are clearly visible in this bee tree in Banda Aceh, Indonesia. Honey hunting has persisted because traditional methods are sustainable, allowing the overall population of bees to persist.



Honey for sale in Bishkek, Kyrgyzstan Republic. As in so many other developing countries, beekeepers can harvest honey relatively easily, but marketing it is a greater problem. There is often poor access to good materials for packaging.



Beekeepers discuss their top-bar hives in Mozambique. Low cost hives made from local materials are essential. The easiest way to increase production is to increase the number of occupied hives. With seasonally migratory bees, this is only possible if hives are inexpensive.

and equipment, etc. Be careful not to exaggerate the potential benefits.

- Did the target community request beekeeping assistance, or is the training driven by your own interests? Without local buy-in, the project will not succeed.
- Is honey used locally? For what? In many places, honey is a traditional medicine or a substrate for making beer, rather than a food. It may be a

highly valued gift. Is beeswax used or sold?

- Is beekeeping equipment available at reasonable cost? Does it fit with local needs and values? In one project we were involved with, hives costing only \$7 were too expensive to be adopted when there was no certainty of a honey crop. Explore options for inexpensive hives locally made from bamboo, woven reeds, or clay.
- Is there support at higher levels, within regional, state, and federal governments? This may be extremely important for long-term success.

established local methods have proven to be feasible and sustainable.

- Hold group meetings in target communities to gather information. They help you and the participants in your project to learn from each other.
- Are honey bees common or scarce? From which species of bees is honey obtained? How is honey collected, and in what amounts? What is the timing of honey production, of swarming, and of absconding/migration?
- Adults and children often know the locations of wild bee colonies. If there are few bees, it is not likely to be a good place to keep bees throughout the year. Perhaps if the bee populations have been harmed by pesticide use or habitat destruction, your efforts may be best spent in helping to address those larger and more difficult problems.
- Are there good floral resources for bees? Local residents often know which flowering plants are visited by honey bees. Bees will collect pollen from cereal grains such as corn and rice, but they need good nectar sources if they are going to produce crops of honey.
- How intensive is the use of pesticides? Bee kills will undermine beekeeping success.



A beekeeper in western Nepal with his log hives containing *Apis cerana* honey bees.

4. Understand the local beekeeping story

- Gather local information.
- Before you do anything, learn about the beekeeping in the location you are considering for your intervention.
- Beekeeping practices may look very different from those you use at home, yet they may be highly cost effective and appropriate for local resources and conditions in ways that are not apparent to you on first sight.
- Accept that the beekeeping methods you know well are not necessarily appropriate for bees and beekeepers elsewhere. By their very existence, long-



A honey collection centre in Kapiri Mposhi, Zambia. Helping a community to build a collection centre so that their honey can be bulked into significant volumes to attract buyers is a very good way to help beekeepers to move their beekeeping from a subsistence activity to a business activity.



The members of the beekeeping community at Kapiri Mposhi, Zambia, discuss their plans for the season ahead.

- Assess the daily schedules of potential trainees. Is there time within their day to manage bee colonies on a small-scale? On a medium scale? Or are they already so busy in daily activities (collecting firewood, farming, fetching water, cooking, washing, etc.) that there is no time left in the day for beekeeping?
- Observe and understand existing beekeeping activities before you suggest changes. For example in many countries, beekeeping practices are extensive rather than intensive: this means that beekeepers have a large number of low-cost hives, and accept that a proportion will always be empty of bees. This is a cost effective strategy to cope with the mobile, migratory nature of many tropical bees.
- Bees in the location in which you plan to work may well be healthier than bees back home. Consider the reasons for this.

5. Make use of local resources

- Always use local resources – this means *local bees, local materials and local skills*.
- By making hives and other equipment locally, beekeeping efforts help to strengthen local economies and will be more sustainable in the long term.
- Bees may look like those you see at home – but if they are living in a climate that is different from yours, their biology and behavior

will be markedly different.

- Local bees are adapted to local parasites and diseases. For example, over much of Asia, *Apis cerana* is unaffected by parasitic mites, while European honey bees usually succumb quickly to *Varroa* and *Tropilaelaps* mite infestations.
- Local bees are uniquely adapted to local patterns in floral resources and prevailing weather conditions.
- Any importation of live bees always brings with it the risk of introducing a novel pest or

pathogen. Avoid this option: it is impossible to undo mistakes caused by bee importations, and beekeeping built on expensive imports is not sustainable.

6. Understand market systems

- Endeavor to understand the local market system – it may be helpful to train honey traders as well as beekeepers and to spend effort on encouraging the creation of market linkages.
- There is no point in encouraging people to spend time and effort to produce honey and beeswax



A simple, low cost bee hive. Introducing unfamiliar technology does not necessarily help people to move out of poverty.

unless there is a good market for their products.

- The stronger the market for honey, the more incentive people will feel to invest their time and effort in beekeeping.
- Local honey prices are usually higher than world wholesale prices - so beekeepers should expand and seek to saturate local markets before considering export.
- The testing of honey quality required for export is beyond the capabilities of most development initiatives.
- Be careful that your project is not subsidizing honey production or trade at any level (for example by providing bottles, labels or free transport). What will happen when this support is no longer available?

7. Strengthen local trainers

Are knowledgeable trainers available? Trainers should be able to:

- Evaluate nectar and pollen resources and the local floral calendar to assess beekeeping potential;
- Explain the training system and realistic outcomes for beekeeping, so potential trainees can make informed decisions about becoming involved;
- Effectively manage local honey bees and/or stingless bees;
- Deliver training in bee biology and management (through active hands-on learning, not through lectures) that facilitates learning and adoption of techniques;
- Assist trainees with other aspects of running small businesses, such as marketing of products, financial management, and obtaining credit and repaying loans.

8. Build relationships

- Successful development requires strong relationships of participants at all levels.
- It is essential that there is an effective leader or group of people in defined leadership roles among the beekeeper trainees.
- The more honest and open the communication between everyone, the greater the mutual understanding will be of all aspects of project implementation

and management.

- Effective development is about the goals and needs of the target group of people, not the people directing the project. Take the time to meet members of the target communities, learn about their needs, and develop a strategy (goals and milestones) designed to help them achieve the criteria of “success” important to them.

9. Encourage social development

- Encourage the formation of beekeeping clubs or associations.
- Beekeeping clubs serve as a venue for regular sharing of knowledge and group problem solving. They have also an important role in the continuation of beekeeping activities once external funds have been spent and direct contact with trainers ceases.
- Clubs can provide important opportunities for exchanges between people otherwise excluded from social settings.
- Explore the potential for sharing information through cell phones that have become ubiquitous in recent years.

10. Monitor progress

- Monitor outcomes of projects to learn what is working and what is not. The most effective projects involve collaborative identification of problems and weaknesses as well as strengths, through monitoring, experimentation, and evaluation.
- Success goes beyond how much honey is produced and money is generated.
- Obtain information on social changes, such as level of self-esteem, education of children, environmental benefits (e.g., pollination and yields of crops, awareness of the importance of forests), local governance and

organizational capacity.

- Obtain baseline data at the start of the project as well as data at the end of the project, so that changes can be detected and evaluated.
- Beekeepers and bee researchers are generally unaware of appropriate methodologies for monitoring development projects. Team up with social scientists to gain the necessary expertise.
- Report on the project honestly so that others can learn from your successes and failures.

It has been our experience that spearheading a successful beekeeping project – one that results in long-term benefits to the recipients of training activities – is very difficult to achieve. The relationships of participants at all levels are critical. One can never expend too much effort to improve relations. The better you can understand the lives of those you want to help, the more likely your activities will be appropriate for them and their community.

Remember – the communities that you want to assist have probably been producing honey for centuries with methods that may seem ‘wrong’ to you, but they may have very good reasons for them.

One final piece of advice: park your ego at the airport before heading overseas to assist others. If you have personal goals that differ from those of the people you are seeking to assist, they will interfere with the anticipated outcome of your project – the creation of local, sustainable beekeeping enterprises. That central focus on the people and the communities you wish to assist should permeate all project activities. **BC**

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