

Role of Micro-enterprises in Providing Inputs for Sustainable Beekeeping Development

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The objective of the study is to create awareness among those engaged in planning and implementing beekeeping projects regarding the transfer of beekeeping technology and know-how, and the integration of local micro-enterprises (the so-called 'informal sector') for production of beekeeping inputs, in order to ensure sustainability.

Methods

API-Promo/GTZ analysed 35 beekeeping projects, beekeeping activities and beekeeping components of integrated projects carried out by aid organisations during the past 20 years in countries of Africa, Latin America and Asia. For this purpose, project documents and literature were examined, people interviewed and projects visited.

Findings

About 75 per cent of the evaluated projects had a little or no impact on the local beekeeping industry (35 per cent failed totally). Most projects worked well as long as experts or volunteers were in place. In most cases this changed

immediately after their departure or when the project was phased out. Among the many reasons identified for the failure of projects, the following are of special interest.

- Sector policies at the national level: In most countries, governments show little interest in supporting the beekeeping industry.
- Feasibility studies: Traditional beekeeping systems, their importance in the rural economy, and their social value were not profoundly analysed.
- Project planning: Bees and beekeeping techniques were the main focal points instead of the people and their potentials, capability and interest for beekeeping.
- Economic viability: The profit margins people might earn through beekeeping were highly overestimated. Natural resources and absorbing capacity of markets were not properly analysed.
- Time horizons of projects and back-stopping: time for implementation was too short, and monitoring and follow-up was not done properly.
- Professionalism of supporting agencies: In most cases, extensionists were not practical

beekeepers, but theoreticians and modernists. This resulted in low confidence among rural people and ineffective extension services.

- Technology and know-how transfer: Most projects assumed that existing traditional systems were not predisposed to developing the industry, and concentrated mainly on changing them in a short time and with big steps. The level of applied appropriate technology was extremely low.
- Factor costs: Inputs used to develop the industry were expensive, non-appropriate and not available at the village level.

The last two points are important, and are illustrated by the following example related to problems linked with the introduction of the top-bar hive. Most conceptionalists of projects are convinced that the top-bar hive solves many problems related to traditional beekeeping and honey-hunting for all groups and individuals in all developing countries. For them, the top-bar hive is simple in design (low technology) and handling, and has almost all the advantages necessary for good management and sustainable beekeeping. The costs are, in their eyes, low. As a consequence, most projects promote top-bar hive technology. However, the reality is different and often overlooked. In most cases, honey-hunters and traditional beekeepers

- are not interested in intensive management of hives
- are not capable of handling the top-bar hive
- want to earn money from bees and honey with a minimum of work and risk
- avoid spending money on inputs of any kind preferring to make their own hives or barter for them
- are individualists and risk minimisers who do not like to depend on others and do not like to expose their assets to strangers
- are afraid of theft and vandalism of hives that are not hung up in trees or watched carefully
- know that bees can become aggressive and dangerous

- depend very much on social acceptance for what they do including beekeeping.

When top-bar-hive projects started, in most cases it was soon recognised that fabrication of top-bar hives could only be done by well-equipped carpenters. To profit from cost reduction when producing large numbers of hives, manufacturing was given to large companies normally located in towns. To provide beekeepers with the necessary inputs, a 'hive tourism' and credit system had to be started. As most farmers have no means of buying and transporting hives, most were taken by project vehicles from the manufacturer to the beekeeper. When projects were phased out, in many cases credits were not repaid, revolving funds stopped working, new hives were not bought and broken ones not repaired.

Conclusion

To avoid project failure due to high-input costs and non-appropriate technologies and to guarantee a high level of sustainability the following should be considered.

- Traditional beekeeping systems and the technical skills of the people should be studied more profoundly before a project starts.
- Resource persons, familiar with rural socio-economic conditions and development, should be consulted.
- Beekeepers, honey-hunters and newcomers to beekeeping should receive different training and equipment according to their problems, capabilities and resources.
- As soon as possible, local people should be trained as trainers and project conductors, the project must become their own project. People from implementation agencies should only act in the background as facilitators.
- Integration of the rural micro-industries in producing equipment that cannot be made by beekeepers should be emphasised. For

this, training of carpenters, blacksmiths, tailors, pottery makers, etc. should be part of the project.

- Simple and easy-to-handle technologies that require minimum maintenance should dominate.
- Locally available materials, and modern materials liked by people as well as by bees (for example, cement, plastic, metal, iron sheets, etc.), and materials suitable for storing honey (recycled bottles, jars, plastic bags, etc.) should be integrated if input costs allow.
- Hives must be installed where bee pastures are best and where bees like to live to guarantee high occupation rate, high yields and a minimum of absconding.

- Hive products (comb honey, bottled honey, wax, pollen, etc.) should be used to satisfy the local market first before other markets are addressed.

If these points are respected before and during project implementation, people will be mobilised to keep bees. It is important that people are successful from the start at owning bees, and producing and selling honey. If they are convinced that beekeeping fits them, they will become beekeepers, and the development of techniques, management methods and the integration of environmental aspects will follow automatically.