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| **Info-Tech** | 1. **Zone and Definition**
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| **Beekeeping.****General Process Overview** | Agro-ecological zone: all agro-ecological zones.Keeping of bee colonies, commonly by using hives with ease of management for the production of honey and wax, either by improved traditional or modern methods.  |
| **2) Objective**  |
| To produce honey and wax to generate additional income and to improve food and nutrition for households. Beekeeping also increases the number of pollinators, which increases yields of nearby crops, fruit trees and other useful plants in the natural environment. |
| **3) Suitability and Adaptability Based upon Local Knowledge** |
| A sufficient area of honey flora and water sources must exist close to the hives. This makes rehabilitated land with improved vegetation cover ideal for beekeeping. Most indigenous trees and shrubs in the region are sources of pollen for honeybees and bloom in different seasons throughout the year, depending on rainfall and available water sources. Installation of beehives should be away from densely populated living areas or agricultural land with chemical application and should be protected from disturbance by livestock. Agro-pastoralists have experience in harvesting honey from wild bees, with some households practicing traditional beekeeping. Existing knowledge will help in adopting improved/modern methods that allow for improved yield and quality. |
| **4) Target Beneficiaries**  |
| Target beneficiaries are co-operatives, especially those that manage rehabilitated land, women’s and youth groups as well as individual families that have a stable home base.  |
| **5) Yield and market demand** |
| The estimated average production per harvest and hive is 7 kg of honey and 2 kg of wax with up to two harvests per year. Honey and wax can be marketed locally. The expected minimum income per year and hive amounts to ETB 4,900, depending on fluctuating demand and market prices. Usually, there is a solid demand for quality honey and wax. |
| **6) Periods and Phases of Implementation** |
| Can be implemented during the whole year if sufficient water and flora is available. Transfer of bee colonies, and therefore also the technical training of the bee-keepers, is most favourable at the end of the main rainy season. Cooperative set-up and negotiation of implementation arrangements should happen 2-3 months before that. |
| **7) Planning and Implementation Arrangements** |
| Awareness creation:* Establishment of interest in the community: presentation of modern hives, quality of honey, exchange with other local bee-keepers;
* Assist establishment of beekeeping user group (10 users, half and half male and female recommended or youth groups, optional also ‘female-only-groups’): facilitate meetings, explain all necessary activities, organizational options, roles played by individuals, make aware of typical mistakes made by new groups, etc.
* Assist beneficiaries in negotiating cooperation conditions with the supporting organisation offering initial inputs such as hives, bee colonies, equipment, etc. Determine beneficiary contributions in cash, kind and labour;
* Training for beneficiaries on site selection and general overview of improved beekeeping management, harvest and post-harvest management of honey, packaging and marketing;
* Agreement with user group members on plot location;
* Assist in assigning specific tasks to user group members. For quality insurance, responsibilities must be individually assigned, possible in a rotation. No general responsibilities to inspect the beehives regularly;
* Establishment of a beekeeping fund (either stand alone or as a part of the cooperative fund; collaborate with Woreda specialists). All members must contribute to fund an agreed amount in ETB to receive beehives and other materials;
* Assist agreement within user group on use of revenue: a certain percentage should go to cooperative fund to support the growth of the beekeeping activity and finance repair and replacement of materials. Cross-funding of other activities only when user group insists, otherwise danger of reducing incentive to continue with bee-keeping activity.
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| **8) Work Steps and Input Requirements** |
| Input for awareness creation and implementation:* Demonstration hives, wax and honey; travel for peer exchange
* Visualisation and training materials
* Training of selected members in different skills, but never just one person: transport of colony, building of modern hives, securing site, honey and wax harvest, inspection of harvest and hives, treatment of honey, packing, marketing;
* Assist in building hives and establishing colonies;
* Monitoring of site and activities;
* Assistance with potential pest attacks;
* Assistance during first harvest of honey and wax;
* Assistance in organising use of honey: packaging, marketing.
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| **9) Risks, Constraints and Limitations** |
| * Pests, diseases and wild animals attacking bee colony;
* Droughts leading to lack of bee forage, drinking water shortage and perishing of colony;
* Lack of maintenance due to weak organisations, lack of funds, lack of incentives for persons made responsible for maintenance, resulting in low productivity or abandonment.
* Alternative implementation: Beekeeping user group for trainings and joint activities like honey harvest while the beehives are becoming individual property.
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