

Evaluation Study on Rapid Assessment of Madhuvana and Apiculture Scheme

Department of Horticulture

Executive Summary

I. Findings of the Study

1. Karnataka Evaluation Authority has assigned TECSOK for Rapid Assessment of Apiculture Scheme for the year 2011-12 (Suvarna Bhoomi Yojana) & 2012-13 (Madhuvana & Apiculture Development Scheme of District & State Sector) in Karnataka.
2. The sample size of 605 beneficiaries and 50 stakeholders (Societies, Manufacturers, Officials & others) has been covered from 10 Agro Climatic Zones during the field survey.
3. Majority of beekeepers throughout the State practice Apis cerana beekeeping activity. It has black & red variety.
4. Majority beekeepers in the State practice stationery beekeeping with 4 – 8 bee boxes. Migration of bee colonies and its benefits are not known to the beekeepers and farmers to avail the economic benefits.
5. Apis mellifera is less known in the State except few beekeepers in coastal districts due to climatic factor. Stationery beekeeping practices for Apis mellifera is not feasible due to lack of nectar during lean flowering season.
6. The scheme targets have been achieved by training beneficiaries and providing bee boxes with colonies. The Department organised Madhu Mahothsavas, distributed pamphlets / booklets about beekeeping to beneficiaries & public. Institutions concerned to Apiculture have imparted knowledge in respective fields to the beneficiaries during training programme and in field demos.
7. Field observation indicates that, very few beekeepers have taken beekeeping seriously as economical / commercial activity. Majority of beekeepers are hobby

beekeepers and not worried about the bee colony, propagation, expansion, yield, quality, and branding, marketing & other aspects for overall development.

8. Honey collection from the comb is partly manual by squeezing and mainly by using mechanical centrifugal extractor. The honey collected from bee boxes is sold in the raw form locally without label / brand name in the price range of Rs.350/kg to Rs.650/kg. Honey collected during specific flowering season fetches Rs.850/kg to Rs.900/kg (Atla Honey / Soap nut Honey).
9. Beekeepers do not sell honey to local societies due to low procurement price ranging from Rs.120/kg to Rs.170/kg.
10. Beekeepers Co-operative Societies at Sakleshpur, Madikeri are mainly processing wild honey from the forest (*Apis dorsata*) collected by tribals, who sells at low price. The processed honey is priced in the range of Rs.220/kg to Rs.250/kg.
11. LAMP societies in B R Hills, Madikeri and in other places are procuring wild raw honey and selling in bulk to the Ayurvedic & Pharmaceutical companies within and outside the State. These societies are also procuring other forest produces in addition to honey.
12. Awareness among officials, farmers – Agriculture & Horticulture is lacking. The concentration among the trained candidates by the department is limited to beekeeping for honey collection. Knowledge about collection of other bee products - pollen, wax, propolis, bee venom, royal jelly, etc., is lacking. The increase in crop yield is not much appreciated by the farmers due to lack of quantification, education and awareness.
13. Employment generation in rural areas from beekeeping is limited due to less than 10 bee boxes maintained by each beekeeper. If, commercial beekeeping is taken up and migratory beekeeping practices are adopted, the employment generation will be very large among rural youths and women.

14. Average honey yield from Apis cerana colonies is 7 kg/box/year. There are few beekeepers, who collect as much as 20 kg to 25 kg/box/year. In a year, each colony may be divided into 3. These divided colonies are being sold at a price fixed by the department to other farmers for Apiculture. The crop yield is an additional income which is difficult to quantify. The economics of beekeeping gives net revenue of Rs.8,050/box/annum.
15. The honey is mainly sold in the raw form without brand name or label. Only few societies – Madikeri, B R Hills and Sakleshpur are selling processed honey with brand name. Very few beekeepers sell the honey in their own brand name, which are Giridarshini from B R Hills, Nisarga Honey, Cauvery Honey, etc.
16. The beekeeping activity in dry areas of the State in first 6 Agro Climatic Zones is required to be given serious effort for development and expansion. These areas are in need of Apiculture activity for increasing crop yield especially oil seeds. The hilly and forest areas have floral feed available throughout the year. So, stationery beekeeping activity sustains by itself. Honey yield is very low due to lack of flowering plants in coffee plantation areas.

II. Suggestions

Short Term - Capacity building

1. Provide intensive training programme at different levels including focus on importance of migratory beekeeping.
2. Propagating beekeeping activity as an entrepreneurial venture rather than a supplementary activity.
3. Officers of the Department need to be trained in creating awareness about the importance of Floral Mapping for providing boost to Apiculture Sector in the State.
4. Arranging frequent visits of beneficiaries and progressive farmers to major beekeeping regions across the Country.
5. Creating wide awareness about the economic & environmental benefits of beekeeping among all the stakeholders in the beekeeping.

6. Organising awareness programme to the Bankers, Insurance Companies regarding the importance of Apiculture as an income generating activity in order to provide loans for the activity.
7. The Department should take initiative to fill up the existing vacancies and appoint additional staff for giving thrust to Apiculture activity in the northern part of Karnataka where the activity is essential for crop yield but lagging behind to a large extent due to lack of staff.
8. Intensive awareness at all levels need to be created among farmers & horticulturists regarding the benefits and importance of Apiculture in increasing crop yield, improving quality of agriculture & horticulture produce, medicinal importance of honey, economic importance of other bye-products, etc.

Long Term - Strengthening the Institutional Framework

1. Facilitate beekeepers to form SHGs in the similar line existing in dairy sector.
2. Encourage SHGs to have network with the other similar SHGs in beekeeping in the region to enable operating, collection & marketing of honey & other products in large scale on commercial footing.
3. The existing Madhuvanas may be handed over to the interested progressive beekeepers to manage the activities under the supervision of Horticulture Department.
4. Integrate different schemes intended for development of apiculture viz. S-25, S-21, Madhuvana & SBY of State sector and National Horticulture Mission & RKVY of the Central sector in addition to ZP scheme. There should be a common guideline in order to avoid the confusion at the field level due to multiplicity of scheme.
5. Strengthen & upgrade the existing Beekeeping Training Institute at Bhagamandala, which is of tourist destination for foreigners (marked on the World Map). The training facilities attached to Madhuvanas at Chickmagalur, Dharwad, Gulbarga and other places may be upgraded with present infrastructure facilities.

6. Madhuvanas may also act as a Common Facility Centre for the beekeepers in & around the region for providing necessary facilities in the field of basic low cost honey processing units, basic quality control testing facilities, guidance cell, etc.
7. Establish Karnataka Beekeeping Board (KBB) in similar line with National Beekeeping Board (NBB) with the following salient features:
 - a. The proposed KBB may be established in Public Private Partnership mode.
 - b. The objective of KBB is overall development of beekeeping by popularizing state of art technologies relating to nucleus stock production, capacity building and training of bee breeders and beekeepers, processing and quality control of bee products, etc.
 - c. Promotion of scientific beekeeping and serve as advisory body to the Government on the subject.
 - d. The Board may comprise of 10 - 15 members representing various stakeholders including beekeepers, beekeepers societies, NGOs promoting beekeeping activity, representatives of Horticulture Department, processing units, marketing agencies, etc. An officer in the rank of Additional Director, Horticulture Department may be appointed as Ex-officio Executive Director.

III. Policy changes in the Scheme

1. Extend Interest Subsidy to the beekeepers / SHGs, who avail loan assistance from Banks / Financial Institutions for Apiculture.
2. Introduce necessary changes in the scheme to take up activities like management of Madhuvanas, migratory beekeeping, providing common facility centre covering testing, grading, quality control & packaging of honey and honey products on PPP model.
3. Linking supply of bee colonies with boxes through progressive beekeepers at a subsidized rate.
4. Integrating the various existing schemes for development of Apiculture and implement single programme for effective implementation of the scheme.

5. Certification & Brand Registration may be encouraged for export of honey to various overseas countries.
6. Dovetail existing schemes in Agriculture & Horticulture Department for creating awareness for Apiculture among the farmers and other beneficiaries (non-Apiculturists) in all the activities of the Department.

Recommended Policy Changes in the Scheme

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