

A STUDY ON BEE KEEPERS IN KANYAKUMARI DISTRICT

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ABSTRACT

Bee keeping is principally dealing with the management of bees and processing of bee products from natural forests, plantations, agricultural land and other habitats. It is an important income generating activity with high potential for improving incomes, especially for communities living close to forests and woodlands. It is a source of employment, provides income to the people, a source of recreation, ecotourism and foreign exchange earnings. Sideline beekeepers attempt to make a profit keeping bees, but rely on another source of income.

Key words: Bee keeping, bees, employment, income, bee keepers, agriculture, forests.

I. INTRODUCTION

India is an agricultural country. The majority of the people in India depend on agricultural activities for their livelihood. India has achieved self sufficiency in food grains production and now India is fourth largest grain producer in the world.

After independence India launched massive programs for rapid industrialization. Special efforts were also made to develop various agro-based industries like dairy farming, fish farming, poultry farming, sericulture and beekeeping. Compared to dairy farming, fish farming, poultry farming and sericulture, beekeeping industry received inadequate attention resulting into stagnation in the production of honey. Although human beings since know honey and honey bees time immemorial. Unlike several other industries beekeeping is not a traditional industry in India.

1.1. Bee keeping

Bee keeping is an interesting and stimulating activity. Bee keepers often become so fascinated that they devote increasing interest to their activity. In this way they learn more about bees and the environment and also about their own abilities as producer and entrepreneurs.

1.2. Significance of bee keeping

Bee keeping refers to the domestication of honey bees for the purpose of obtaining honey and other useful products such as wax, pollen and royal jelly. Bee keeping is a low cost technology with high potential for economic returns. Farmers and other workers who generally take part in agricultural operations are mainly engaged in beekeeping.

Beekeeping is regarded as an agricultural venture that requires little or no land except a space to stand or hang a hive, very little labor, almost no capital, and most of the other inputs are considered to be locally available. Beekeeping is often promoted as being a pro-poor income generating activity because it is accessible to marginalized members of local communities. It constitutes a resource of sustainable income generation for the rural and tribal population.

1.3. Honey bees – different species in India

Five important species of honey bees are as follows.

- The Rock bee, *Apis Dorsata*
- The Indian hive bee, *Apis Cerana Indica*
- The little bee/ dwarf bee, *Apis florea*
- The European or Italian bee, *Apis Mellifera*
- Dammer bee or stingless bee, *Melipona irridipennis*

1.4. Importance of bee keeping

The importance of bee-keeping is analyzed in respect of importance to bee-keepers; importance to traders; importance to the Government; and importance to the customer.

1.5. Constraints faced by the bee keeping industry

The Indian economy largely depends upon agriculture and allied industries. Experience has shown that cereal based agriculture is no more self sustaining and remunerative, as it is leading to several problems of ecological nature. Enterprises like poultry, piggery, dairy, mushroom growing etc., require higher initial costs than bee keeping. Due to its low cost farmers prefer beekeeping as an important subsidiary occupation, which provide high returns as honey. Royal jelly, Bee wax, Bee venom, propolis etc.

1.6. Production problems

Eighty percentage of the honey produced in Kanyakumari District fails to get the special grade quality. The reason for this is that it contains more than 22 percent moisture. Some of the bee keepers are using camphor in smokers. This affects honey production, because it reduces the livestock in the hive.

1.7. Problems of marketing

The price of honey prevailing in the market is not at all favourable to the bee keepers. The agencies are enforcing strict quality control measures and unfair trade practices against non-members. The grants and subsidies given by the Government under its different schemes are not given much publicity. The individual bee keepers must get a honey grading license. The license can be obtained from the marketing Directorate of the Government of India. But small bee keepers are unaware of the subsidies given by at all a fair price to the bee-keepers. Lack of transport facilities for migrating bee colonies and taking back extracted honey to the market is a serious problem faced by the bee keepers in Kanyakumari district. They suffer much due to the non availability of expertise in the marketing of their product.

1.8. Marthandam bee keepers co-operative society

Marthandam Bee keeper's co-operative society was registered on 19-03-1937, and started to work on 14-04-1937. The area of operation of the society was confined to Kalkulam and Vilavancode taluks of Kanyakumari District, excluding Thiruvattar and Killiyoor panchayats of Union areas. The main objective of the society was the improvement of the bee keeping industry and the economic conditions of the bee keepers.

The honey purchased by the society is processed Agmarked, ('A' Grade) and supplied all over India in bottles and tins in retail and bulk. The production of honey is seasonal according to climatic condition i.e., February to April every year. The society gives employment opportunities to more than 10,000 individuals and their families are benefited.

II. RESEARCH METHODOLOGY

2.1. Scope of the study

The role of beekeepers in Kanyakumari District is purely exploratory in nature. It discusses in detail the reason for the beekeepers involvement in production and marketing problems transport, selling, saving, family expenditure pattern, sources of income, indebtedness and possession of assets. The demographic, socio and economic conditions of honey producers in Kanyakumari District forms a major part of this study. The production and marketing of honey is analyzed by using various statistical techniques.

2.2. Objectives of the study

The specific objectives of the study are

1. To study the socio-economic conditions of bee keepers in the study area.
2. To find out the performance of bee keepers in Kanyakumari District.
3. To find out the problems of honey production in Kanyakumari District.

2.3. Statistical tools and techniques used

The data collected through interview schedule checked thoroughly. Then the data were property lined and placed in the master table and it has been classified tabulated for further analysis. The variable were analyzed with the help of percentages.

2.4. Limitations of the study

1. All the secondary data are collected only from the published source.
2. Some of the respondents may furnish incorrect information due to psychological fear.
3. It is very difficult to get the accurate data from the income, expenditure, savings and borrowing patterns of their households during data collection.

III. DATA ANALYSIS

3.1. Sex

Among the sample respondents of 60, as high as 93.33 per cent are males while the remaining 6.67 per cent are females.

Table 1- Distribution of sample respondents by sex

Sl. No.	Sex	No. of Respondents	Percentage
1	Male	56	93.33
2	Female	4	06.67
	Total	60	100.00

Source: Computed from Primary Data.

Thus from the analysis it can be concluded that a majority of the sample respondents engaged in apiary activity are males.

3.2. Age

Age is an important factor determining the profile of the farmers. Among the sample respondents, 30 per cent of the sample respondents are in the age group of 35-45 years. Another 25 per cent each are either in the age group of 25-35 years or in the age group of 45-55 years. While 15 per cent of the sample respondents are in the age group of less than 25 years, the remaining five per cent are in the age group of above 55 years.

Table 2- Distribution of sample respondents by age

Sl. No.	Age (in years)	No. of Respondents	Percentage
1	Less than 25	9	15.00
2	25-35	15	25.00
3	35-45	18	30.00
4	45-55	15	25.00
5	Above 55	23	5.00
	Total	60	100.00

Source: Computed from Primary Data.

Thus from the analysis it can be concluded that a majority of the sample respondents are in the age group of 35-45 years.

3.3. Level of education attainment

Among the sample respondents, the highest share of 28.19 per cent of the sample respondents are primary level education completed. Another 25.05 per cent are middle level education completed. There are 13.36 per cent sample respondents who are just literatures. Another 11.69 per cent respondents are secondary level education completed. Another 10.02 per cent of the respondents are illiterates. 6.68 per cent respondents who are higher secondary level education completed. While 3.34 per cent of the sample respondents are graduates- the first generation graduates, the remaining 1.67 per cent of the respondents are other level education namely, diploma, certificate level education completed.

Table 3- Distribution of sample respondents by education attainment

Sl. No.	Education Level	No. of Respondents	Percentage
1	Illiterate	6	10.02
2	Literate	8	13.36
3	Primary	17	28.19
4	Middle	15	25.05
5	Secondary	7	11.69
6	H. S.C.	4	6.68
7	Graduation	2	3.34
8	Others	1	1.67
	Total	60	100.00

Source: Computed from Primary Data.

Thus from the analysis it can be concluded that a majority of the sample respondents are primary level education completed.

3.4. Marital status

Almost all societies recognize four marital statuses such as Single (never married), Married, Widowed and Divorced. The marital status composition of the population would influence peoples' life in many ways. Marital status affects the labor force participation, school attendance, urban-rural residence etc. Economic, religious and legal factors also affect marriage process. Based on the above views in the present paragraph it is attempted to examine the marital status of the sample respondents.

Table 4- Distribution of sample respondents by marital status

Sl. No.	Marital Status	No. of Respondents	Percentage
1	Single	8	13.36
2	Married	42	70.14
3	Widowed	6	10.02
4	Divorced/Separated	4	6.48
	Total	60	100.00

Source: Computed from primary data

Among the sample respondents, the highest share of 70.14 per cent is married. Another 13.36 per cent are single. While 10.02 per cent are widowed, the remaining 6.48 per cent are divorced or separated.

Thus, from the analysis it can be concluded that a majority of the sample respondents are married.

3.5. Beekeepers in Kanyakumari District

Table 5 - Number of bee keepers in Kanyakumari District

Year	No. of Bee-keepers
2011-12	21846
2012-13	22018
2013-14	22190
2014-15	22362
2015-16	20423

SOURCE: KVIC, Chennai, 2016.

Table shows the number of beekeepers in Kanyakumari District during the period from 2011-12 to 2015-16. In the year, 2011-12 the number of beekeepers was 21,846 in Kanyakumari District. It declined to 20423 in the year 2015-16. Given the trends, the average level of beekeepers for the entire study period stood at 21767.8.

3.6. Production of honey in Kanyakumari district

Table - Production of honey in Kanyakumari district

Year	Total Production (inLaksKgms.)
2011-12	314
2012-13	324
2013-14	333
2014-15	342
2015-16	232.52

Source: KVIC, Chennai, 2017.

Table shows the production of honey in Kanyakumari District during the period from 2011-12 to 2015-16. In the year 2011-12 the production of honey was 314 lakh kilogram. It decreased to 232.52 lakh kilogram in 2015-16.

3.7. Average productivity of honey per bee keeper

Table- Average productivity of honey per bee keeper

Year	No. of Bee-keepers	Total Production (inLaksKgms.)	Average production Per Bee-Keeper (kilograms per bee keeper)
2011-12	21846	314	1437.33
2012-13	22018	324	1471.52
2013-14	22190	333	1500.68
2014-15	22362	342	1529.38
2015-16	20423	232.52	1138.52

Source: KVIC, Chennai, 2017.

Given the trends in the growth of bee keepers and the production of honey, an examination of the productivity of honey indicates that it was 1437.33 kilograms per keeper in the year 2011-12 and this increased considerably to reach 1138.52 kilograms per bee keeper in the year 2015-16.

Conclusion and Recommendations

Bee keeping can become a rewarding occupation for many people, particularly for under-privileged, landless and low-income groups. It requires minimal start up investment and generally yields profits within the first year of operation. A large number of people are already involved in bee keeping, honey collection, processing and marketing of honey and other bee products offer great potential for value addition and product diversification.

Farmer should be made aware regarding apiculture and pollination. Bee keeping should be made an integral part of agricultural and horticultural techniques. The knowledge on additional income generation from bee keeping, especially on aspects like pollen marketing etc., may also add a new dimension to bee keeping and honey industry. Promotion of bee keeping as an employment generation activity is the need of hour. Government should pay attention towards marketing of hive products and encouraging apiculture.

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