

Status and Scope of Beekeeping in South East Vidarbha Region, Maharashtra, India

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ABSTRACT: South East Vidarbha region constitutes tribal and undeveloped districts of Gadchiroli & Chandrapur. Departmental studies and surveys were conducted to know the status of Beekeeping in South East Vidarbha region at College of Agriculture, Sonapur Gadchiroli. The forest area covers more than 79.36 per cent of total geographical area of the district. The district is famous for Bambu & Tendu leaves. The tribal community population that resides in the district is 38.3 per cent. Small projects such as Beekeeping plays an important role in developing rural economy. By seasonal management of the bees, problems of rearing bees in summer and rainy season can be solved. There is tremendous scope for increasing beekeeping in Chandrapur and Gadchiroli districts. At present there are 430 beekeepers are working in the region. Efforts must be directed in training of small and marginal farmers, tribals in scientific way of harvesting honey from rock bee *Apis dorsata* and rearing *Apis indica* in bee hives. It will provide food and cash income, solve social and environment problems, helps in overcoming the problems of malnutrition and health in rural areas and will enhance the productivity of Agricultural and forest crops.

Keywords: Beekeeping Industry, Beekeepers, *A. cenrana indica* *A. dorsata*.

INTRODUCTION

The beekeeping plays an important role in rural economy. The climate of Gadchiroli and Chandrapur district is variable. Chandrapur is known for its hot and humid climate, where as Gadchiroli is also having similar climate but with little variations. The average annual rainfall in Gadchiroli is 1400 to 1500 mm and that of Chandrapur is 1200 to 1300 mm. (Anonymous 2013) Paddy is the main crop in eastern and southern part of the region, whereas, different types of crops like cereals, pulses, oilseeds, vegetables are cultivated in the region. However, many forest plant species providing flora throughout the year. (Chandore & Neharkar, 2003).

There is no large scale industry in the entire Gadchiroli district except the paper mill at Ashti in Chamorshi taluka and Paper pulp factory at Desaiganj. The region is very rich in mineral wealth such as iron ore, limestone and coal. Many cement factories are located in the Chandrapur district. Due to large number of coal mines present around Chandrapur city, it is known as 'The city of Black Gold'. Gadchiroli district has a population of 10,71,795 roughly equal to the nation Cyprus or Rhode Island

of US State (Anonymous 2012). Seasonal Management of honey bees in the rainy and summer season plays an important role in boosting Beekeeping in South East vidarbha region. (Chandore & Neharkar, 2005)

METHODOLOGY

The methodology adopted was surveys, data collection, training's and awareness programmes by various NGO's and Agriculture College, Gadchiroli. There are few beekeepers in South East Vidarbha region who are rearing *Apis cerana indica* beehives. Due to constant individual as well as institutional efforts of Agriculture College Gadchiroli, forest department , Agriculture department, Bhrtiya Samaj Prabodhan Sanstha (BSPS) Warora, Ami Amchya Arogyasathi Kurkheda, etc. The interest of beekeepers and workers of NGO'S about beekeeping is increasing day by day.

RESULTS

There are large number of colonies of *Apis dorsata* in the forest areas in South East Vidarbha region. Number of colonies noticed on a single tree ranges from 40 to 80. Tribals are harvesting the honey by crude and destructive methods. Destruction of rock

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bee colonies by honey gatherers who used fire torches to drive away and burn bees on the combs, caused serious losses to rock bee populations. There is a need to create awareness among the farmers and tribal people about wild honey bees, their role in agriculture & forest ecosystem and their importance in intensive agriculture. Research work carried out by centre science for villages, Dattapur, centre for bee development, Nalwadi and Dharamitra, Wardha (M. S.) evolved an eco-friendly technology of scientific collection of honey and wax from these beehives without rendering much disturbances to the bees and comb. Repeated extraction of honey from the same comb is possible. This technology should be disseminated to tribal honey gatherers. At present there are only five honey collection centers. This will be good source of income to tribal community. It will generate employment and uplift rural economy.

Table 1
Survey Report of Rock Bee *Apis dorsata* (2012-13) in South East Vidarbha region

1 Villages covered	85
2 No. of colonies	9095
3 No. of Bee keepers	405
4 Production of Honey	540 quintals
5 Annual Income through sale of honey & wax	15.80 lakhs

Source: Agriculture College Sonapur-Gadchiroli and "Amhi Amchya Arogyasathi" Kurkheda Distt. Gadchiroli, approximate picture of *Apis dorsata* (Rock, Bee).

As per the survey conducted by Agriculture College Sonapur-Gadchiroli and "Amhi Amchya Arogyasathi" Kurkheda Distt. Gadchiroli, for Rock Bee *Apis dorsata* 2012-13 (Table 1) shows that the number of villages covered were 85 with 9095 number of bee colonies and 405 bee keepers. The production of honey was 540 quintals with 15.80 lakhs annual income through sale of honey and wax. It indicates that the production and annual income generated from this activity is very low even though it is a forest area and livelihood of these farmers and/or tribals depends on forest products. One of the reason of low productivity is less awareness, no proper training to beneficiaries and so far less involvement of NGO'S and government agency.

As per the survey conducted by Agriculture College Sonapur - Gadchiroli and Bharti Samaj Prabodhan Sanstha (BSPS), Warora, regarding Rock Bee *Apis cerana indica* 2012-13 (table 2) shows that the number of villages covered were 12 with 85 number of bee colonies and 25 bee keepers. The production of honey was 475 kg. with Rs. 95000 annual income

Table 2
Survey Report of Indian Bee *Apis cerana indica* (2012-13) in South East Vidarbha region.

1 Villages covered	12
2 No. of colonies	85
3 No. of Bee keepers	25
4 Production of Honey	475 Kg.
5 Annual Income through sale of honey & wax	95,000

Source : Agriculture College Sonapur - Gadchiroli and Bharti Samaj Prabodhan Sanstha (BSPS), Warora, approximate picture of *A. cenrana indica* (Indian Bee) in South East Vidarbha region.

through sale of honey and wax. This is a completely bee keeping programme by the farmers and/or tribals. The technical knowhow regarding bee keeping is not thoroughly provided by the various agencies, still some NGO'S and government organizations are working for them. The environment and the climate is very suitable for bee keeping and farmers and/or tribals are required to be trained and aware in this programme. As it is seen from the comparison of table 1 and 2 that the production of honey from Indian Bee *Apis cerana indica* is comparatively less than the *Apis dorsata*. Further more because of less awareness among the farmers, bees were also affected by wax moth, some bee parasites and predators etc .

There are only few beekeepers in South East vidarbha region who are rearing *Apis cerana indica* in beehives. Due to constant individuals as well as institutional efforts (Agriculture College, Gadchiroli, Anand Niketan College of Agriculture, Anandwan, Warora, Dist. Chandrapur & Bharti Samaj Prabodhan Sanstha, Warora, Dist. Chandrapur) of beekeepers interest in beekeeping is increasing. Number of unemployed youths are coming forward to know innovative techniques in Bee Keeping of *A. indica* and *A. dorsata*. Several training and awareness programmes were organized by Bharti Samaj Prabodhan Sanstha, Warora (BSPS) through Central Bee Research and Training Institute, Pune (CBRTI) and Khadi and Village KVIC, Pune in which different aspects of training on *A. dorsata*, *A. cenrana indica* & *A. florum* were given.

Commonly occurring bee florum in South East Vidarbha region are cereals, pulses, Oil seeds, Fruits, Vegetables, Trees and forest plants.

CONCLUSIONS

There is tremendous scope for increasing beekeeping in South East Vidarbha region. Efforts must be directed in training small and marginal farmers, tribals etc. in scientific way of harvesting honey from



Honey Bee colonies, *A. cerena indica* (Apiry in South East Vidarbha region, M.S. India)



Honey Bee Training to Farmers at KVK ,Gadchiroli



Queen Bee with workers & Drones



Observation of Swarm



Swarm collection

rock bee *A. dorsata* and rearing *A. cerena indica* in bee hives. It helps in overcoming the problems of malnutrition and health in rural areas and will enhance the productivity of agricultural and forest crops and increase the overall income of the farmers in South East Vidarbha region of Maharashtra (India).

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