

GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURE, COOPERATION AND FARMERS WELFARE

LOK SABHA
UNSTARRED QUESTION NO.1497
TO BE ANSWERED ON THE 25TH JULY, 2017

PROMOTION OF APICULTURE

1497. SHRI RABINDRA KUMAR JENA:

Will the Minister of AGRICULTURE AND FARMERS WELFARE कृषि एवं किसान कल्याण मंत्री be pleased to state:

- (a) the details of the economic impact of apiculture (beekeeping), nationally and State-wise;
- (b) whether the Government has proposed any schemes to support the apiculture industry including but not limited to tribal beekeeping initiatives and if so, the details and the outcome thereof;
- (c) whether research has been conducted on the cause of Colony Collapse Disorder, its effect on agricultural output and its impact on economic welfare of farmers and beekeepers and if so, the details thereof;
- (d) whether the Government has considered further measures to promote apiculture particularly through the mitigation of Colony Collapse Disorder; and
- (e) if so, the details thereof and the action taken by the Government in this regard?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE AND FARMERS WELFARE

कृषि एवं किसान कल्याण मंत्रालय में राज्य मंत्री (SHRI PARSHOTTAM RUPALA)

- (a): As such, no study on economic impact of apiculture (beekeeping), has been conducted.

However, it is mentioned that apiculture/ beekeeping contributes a lot by way of income generation through production of honey & other beehive products, enhancing yield of various crops by pollination support, generating employment, maintaining, environment sustainability & bio-diversity and by adopting as a source of livelihood, etc. by rural mass.

- (b): Khadi and Village Industries Commission (KVIC) has planned for trainings and distribution of honey bee colonies in bee hives for which an amount of Rs. 6.00 crores earmarked under Prime Minister Employment Generation Programme (PMEGP). The unemployed youth can avail the benefit of PMEGP scheme, under which 15 to 35% credit linked subsidy upto the project cost of Rs.25.00 lakhs is available. Under Khadi Reforms Development Programme and Revamped SFURTI scheme, NGOs can also develop beekeeping clusters.

Contd...2/-

The Department of Agriculture and Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare (MoA&FW), Government of India, is implementing Mission for Integrated Development of Horticulture (MIDH) for overall development of horticulture in the country. Under MIDH, among others, to promote beekeeping in the country, assistance is provided for various capacity building programmes (trainings & exposure visits of farmers/beekeepers, officers/field workers etc., seminars/ workshops, etc.), production of nucleus stock of honeybees, developing bee breeders, distribution of honeybee colonies, beehives, supers, etc. and complete set of beekeeping equipments under the component of "Pollination support through Beekeeping". The State Departments of Horticulture/Agriculture are the implementing agencies for implementation of the Mission's programmes/components in the field. National Bee Board (NBB), a Society registered under Societies Registration Act, XXI of 1860, has also been designated as National Level Agency (NLA) for implementation of various activities/components for development of scientific beekeeping under MIDH.

ICAR – AICRP (HB&P) having research plans to increase the genetic diversity of the existing stock of *Apis mellifera* to breed more efficient strains.

Outcome of the above efforts, specially after restructuring of NBB under the chairmanship of Secretary (AC&FW), DAC&FW in 2006 has been adoption of Scientific Beekeeping in a big way in the country and there has been a jump in number of honey bee colonies (about 10 lakhs in March, 2005 to about 30 lakhs in March, 2017), honey production (32,000 tones in March 2005 to 94,500 MTs in 2016-17), honey processing/export units (4 in March 2005 to about 20), Export of honey (9,000 tones in March 2005 to about 45,000 tones upto March, 2017), training of beekeepers in the technologies of production and various high value beehive products like royal jelly, bee venom, comb honey, pollen, propolis, etc. The awareness about the role of honeybees/beekeeping in pollination support of various crops also created, etc.

ICAR – AICRP (HB&P) has also organized 18 training programmes in modern beekeeping for tribals under Tribal Sub Plan. This resulted adoption of beekeeping/ hiring of honeybee colonies for pollination of Apple orchards in Himachal Pradesh and increase of yield by 19.44 per cent and earning of additional income of 17496/- per farmer.

(c): Colony Collapse Disorder (CCD) is the phenomenon that occurs when the majority of worker bees in a colony disappears and leaves behind a queen, plenty of food and a few nurse bees to care for the remaining immature bees and the queen. CCD as reported in the western countries like USA, Germany etc. is not reported from any part of the India. The research around the world attributed colony collapse disorder to multitude of factors including loss of habitat, indiscriminate use of pesticides, outbreak of pests and diseases and climate change. Large scale use of neonicotinoids is believed to be one of the major factors behind the colony collapse disorder but the studies are yet inconclusive. Outbreaks of pests and diseases are the major factor for the decline of bee population in India but it cannot be termed as colony collapse disorder as observed in other countries. The effective bee disease surveillance by ICAR – AICRP (HB&P) is helpful in adopting effective timely control measures in mitigating the large scale loss of bee colonies.

(d)&(e): Yes. Though CCD is not reported from India. However, as preventive measure, the MoA&FW, Government of India has recommended multi institutional and multi location study on evaluating the impact of neonicotinoids on Pollinators with funds from the registrants of neonicotinoids. ICAR – AICRP (HB&P) is the nodal agency for implementing the project. Nine Research centres in different states representing different agro-climate conditions were selected for conducting the studies. The main objectives of the studies are to evaluate the:

- Toxicity of the neonicotinoids to foraging bees under field and semi tunnel trials
- In vitro toxicity of neonicotinoid molecules to brood and adult bees
- Pesticides residues in pollen, nectar , honey and wax

The decline in the population of wild pollinators can be mitigated by:

- Promotion of organic agriculture and judicious use of pesticides.
- Habitat management like planting of flowering plants, provision of artificial nesting sites for pollinators etc., for conservation and promotion of pollinators
- Awareness programmes under National Agricultural Innovation Project (NAIP) project on scientific and non destructive methods of extraction of wild honey and avoiding destructive method that kills thousands of rock bee, *Apis dorsata* workers.

Further, NBB, DAC&FW has decided to set up Integrated Beekeeping Development Centres (IBDCs)/Centres of Excellence (CoEs) on Beekeeping in the country. 10 IBDCs/CoEs as role model for beekeeping have been commissioned by NBB, DAC&FW up to March, 2017 in 10 States, one each, in Haryana, Delhi, Bihar, Punjab, MP, UP, Manipur, Uttarakhand ,J&K and TN. Honey bee Disease Diagnostic Labs are one of the components/ activities in these centres (IBDC).
