

World Bee Day

For Prelims: World Bee Day, United Nations General Assembly, National Bee Board, Western Ghats, Indian black honeybee, Sweet Revolution

For Mains: Significance of Bees, Threats and Challenges Related to Bees, Status of Beekeeping in India, Sweet Revolution.

Why in News?

The Ministry of Agriculture and Farmers Welfare (MoA&FW), recently celebrated World Bee Day on May 20th, 2023 at Balaghat, Madhya Pradesh.

- The event aimed to **promote and popularise beekeeping nationwide** through the **National Beekeeping & Honey Mission (NBHM)** under the Atma-Nirbhar Bharat initiative.
- The Theme of 2023 is "Bee engaged in pollinator-friendly agricultural production".

What is World Bee Day and Why is it Important?

- About:
 - World Bee Day is an annual event that is celebrated on May 20th to raise awareness about the importance of bees and other <u>pollinators</u> for the environment, food security and biodiversity.
 - The date was chosen to commemorate the birthday of Anton Janša, a pioneer of modern beekeeping from Slovenia.
 - The <u>United Nations General Assembly</u> declared World Bee Day in 2017, following a proposal by Slovenia and the <u>support</u> of 115 countries.

Note: Pollinators are agents that assist in the process of pollination. Pollination is the transfer of pollen grains from the male reproductive organs (anthers) of a flower to the female reproductive organs (stigma) of the same or a different flower, leading to fertilization and the production of seeds.

- Significance of Bees:
 - Pollination:
 - Bees are vital for the survival of many plants and animals, as they pollinate about one-third of the world's crops and 90% of the wild flowering plants.
 - They also produce **honey**, **wax**, **propolis and other valuable products** that have nutritional, medicinal and economic benefits.
 - Tackling with Climate Change:
 - Bees help plants to grow faster and healthier, which increases their carbon uptake and storage. Bees also reduce the need for chemical fertilizers and pesticides, which emit harmful gases into the atmosphere.

• They are also indicators of the health of ecosystems, as they respond to changes in the environment such as climate change, pollution, habitat loss and pesticides.

Enhancing Crop Productivity:

- They help in enhancing crop productivity and quality by providing pollination services to various crops such as fruits, vegetables, oilseeds, pulses etc.
- It is estimated that bee pollination can increase crop yields by 20-30% on average.

Generating Employment Opportunity:

- Generating income and employment opportunities for rural households by producing honey and other bee products such as wax, propolis etc.
 - Honey is a high-value product that has a huge demand in domestic and international markets. It is also a source of nutrition and health for consumers.
- It can also help in empowering women and youth by involving them in beekeeping activities as entrepreneurs or self-help groups.

Threats and Challenges:

- Loss and fragmentation of natural habitats due to urbanization, agriculture and deforestation
- Intensive and monoculture farming practices that reduce floral diversity and expose bees to pesticides and herbicides
- Diseases, pests and invasive species that affect bee health and productivity
- Climate change that alters the flowering seasons, distribution and availability of
- he Vision Lack of awareness, knowledge and support for beekeeping among farmers and consumers

What is the Status of Beekeeping in India?

Production Statistics:

- India is one of the largest producers and consumers of honey in the world, with an estimated annual production of 1.2 lakh metric tonnes. India has a rich tradition and culture of beekeeping, dating back to ancient times.
- At present, about 12,699 Beekeepers and 19.34 lakhs honey bees colonies are registered with the **National Bee Board** and India is producing about 1,33,200 Metric tonnes of Honey (2021-22 estimate).
- In November 2022, a new species of endemic honeybee named Indian black honeybee (Apis karinjodian) was discovered in the Western Ghats after a gap of more than 200 years.

Exports:

- India is one of the major honey exporting countries in the World and has exported 74,413 MT of Honey during 2021-22.
- More than 50% of the honey production in India is being exported to other countries.
- India exports honey to about 83 countries. The major markets for Indian honey are the USA, Saudi Arabia, United Arab Emirates, Bangladesh, Canada, etc.

Honey Producing States:

 As per the National Horticulture Board (NHB), Uttar Pradesh, West Bengal, Punjab, Bihar, Rajasthan, Himachal Pradesh, Haryana, Uttarakhand, Madhya Pradesh and Karnataka were the top ten honey-producing states in 2021-22.

What is National Beekeeping & Honey Mission (NBHM)?

- The NBHM, implemented through the National Bee Board, focuses on promoting scientific beekeeping and entrepreneurship among small and marginal farmers.
- It encompasses infrastructure development for post-harvest management, support for research and development, and aims to achieve the goal of a "Sweet Revolution."
- The scheme is aligned with the **Atma-Nirbhar Bharat initiative** and plays a crucial role in increasing farmer incomes and enhancing agricultural productivity.



Way Forward

- Awareness Among Farmers: There is a need to create awareness among farmers about the benefits of beekeeping through mass media campaigns, demonstrations, field visits etc.
 - Also it's time to encourage farmers to adopt beekeeping as an integral part of their cropping system through incentives, awards etc.
- Strengthening the Supply Chain: There is a need to strengthen the supply chain of inputs such as bee colonies, hives etc. through public-private partnerships, cooperatives etc. Ensuring quality control of inputs through standardization and certification mechanisms such as BIS marks etc. Making inputs affordable to farmers through subsidies or vouchers etc.
- Developing Market Linkages: There is a need to develop market linkages for honey or other bee products through platforms such as e-NAM (National Agriculture Market), APEDA (Agricultural & Processed Food Products Export Development Authority) etc.
 - Also, value added products can also be promoted for honey or other bee products through processing units such as Honey Parks etc.

UPSC Civil Services Examination, Previous Year Questions (PYQ)

Prelims:

- Q. Consider the following kinds of organisms: (2012)
 - 1. Bat
 - 2. Bee
 - 3. Bird

Which of the above is/are pollinating agent/agents?

- (a) 1 and 2 only
- **(b)** 2 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Ans: (d)

Mains:

Q. Assess the role of National Horticulture Mission (NHM) in boosting the production, productivity and income of horticulture farms. How far has it succeeded in increasing the income of farmers? **(2018)**

