Heeng Cultivation Project in India

Why in News

Scientists at **CSIR-Institute of Himalayan Bioresource Technology (IHBT), Palampur** are on a **mission to grow heeng** (asafoetida) in the **Indian Himalayas.**

- IHBT is the only laboratory of the **Council of Scientific and Industrial Research (CSIR)** in Himachal Pradesh.

Key Points

- **Heeng:**
    - It is a **herbaceous plant** of the umbelliferae family. It is a **perennial plant** whose **oleo gum resin** is extracted from its **thick roots and rhizome.** The plant stores most of its nutrients inside its deep fleshy roots.
    - It is **endemic to Iran and Afghanistan,** which are also the **main global suppliers of it.** It is very popular in India and is used in cooking.
    - **Climatic Condition:** It thrives in dry and **cold desert conditions.** The plant can withstand a maximum temperature between 35 and 40 degree, whereas during winters, it can survive in temperatures up to minus 4 degree.
        - Regions with sandy **soil, very little moisture** and **annual rainfall of not more than 200mm** are considered conducive for heeng cultivation.
        - During extreme weather, the plant can get dormant.
    - **Properties:** It has **medicinal properties,** including relief for digestive, spasmodic and stomach disorders, asthma and bronchitis.
        - The herb is used to help with painful or excessive bleeding during menstruation and premature labour.
- **India's Heeng Cultivation Project:**
    - Heeng is **not cultivated in India. India imports** about 1,200 tonnes of raw heeng worth Rs. 600 crore **from Iran, Afghanistan and Uzbekistan.**
    - In 2017, IHBT approached the **National Bureau of Plant Genetic Resources (NBPGR)** with an **experimental project idea** to cultivate heeng in the Indian Himalayas.
    - In June 2020, the **IHBT inked a Memorandum of Understanding with the agriculture ministry of Himachal Pradesh** to jointly cultivate the heeng.
        - The agriculture ministry has identified **four locations in the Lahul-Spiti valley** and has distributed heeng seeds to seven farmers in the region.
    - However, the **challenge** for the scientists is that heeng **seeds remain under a prolonged dormant phase** and the rate of **seed germination is just 1%.**

Source: IE