

## SHORTNEWS:

### 1.THE DRUM APP

**NEWS:** A team from IIT Kharagpur has recently launched an app named, “The Dynamic Route Planning for Urban Green Mobility (or DRUM)” allowing commuters to **pick routes based on air quality and energy efficiency.**

#### About the DRUM App

- The DRUM app is **designed as a navigation app** like Google Maps but with the **added feature of allowing users pick green routes based on air quality** and energy efficiency data.
- **Objective:** To provide the users with an **option of alternative routes** which can reduce **their overall consumption of air pollutants.**
  - **Example:** Ambient air pollution is responsible for 7.2% of deaths in major Indian cities every year.
- **Route Options:** DRUM gives **users five route options ie,**
  - **Shortest, fastest, least exposure to air pollution (LEAP), least energy consumption route (LECR),** and a combination of all four factors called the suggested route.
- **Data Collection:** **Real-time live air and traffic data** is collected from the **CPCB and the World Air Quality Index.**
  - Routes are determined using **GraphHopper (a Java-based routing library)** while fetching real-time traffic updates **from Mapbox**

### 2.DISCOVERY OF NEW WASP SPECIES IN INDIA

**NEWS:** A new species of **parasitic wasp, *Losgna occidentalis***, has been **discovered in Chandigarh**, marking the **rediscovery of the genus *Losgna* in India after nearly six decades.**

#### Key Points

- The newly discovered species ‘*Losgna occidentalis*’ was found in an **urban dry scrub forest in Chandigarh in winter 2023–24.**
  - It is the **first insect species formally described from Chandigarh.**
  - Belongs to the family **Ichneumonidae (parasitic wasps)**, known for their role in biological pest control.
- The genus ***Losgna*** was **last recorded in India in 1965** and has no documented presence since then.
- ***Occidentalis* signifies its status as the westernmost occurrence of the genus**, previously known only from eastern India and Southeast Asia.

#### About Parasitic Wasps

- Parasitic wasps, also known as Parasitoids, are a distinct group that **doesn’t typically live in colonies or build hives** like honeybees.
- Adult parasitoids typically **feed on pollen and nectar.**

- They are **solitary and lay their eggs inside other insects or spiders**, using them as hosts for their larvae.
- The wasp **larvae may manipulate the host's physiology and behavior to ensure its own survival and development**. This can include causing **paralysis, developmental arrest, or immune suppression**.
- The parasitoid larva **eventually consumes and kills the host, completing its development**.

### 3. HEENG CULTIVATION IN INDIA

**NEWS:** Recently, CSIR-IHBT reported the first successful flowering of heeng in Palampur, proving that heeng can **grow and thrive in Indian conditions**.

#### About Heeng

- **Scientific name:** *Ferula assa-foetida*.
- **Raw asafoetida** is extracted from the **fleshy roots of *Ferula assa-foetida*** as an **oleo-gum resin**.
- **Benefits:** Digestion, relieving abdominal pain, and enhancing taste.
- **Natural Habitat & Growth Conditions**
  - Heeng thrives in **cold, dry climates**, mainly in **Iran, Afghanistan, and Central Asia**.
  - It prefers **sandy, well-drained soil** with **low moisture**.
  - **Ideal rainfall: 200 mm or less**; tolerates up to **300 mm** in cultivated regions.
  - **Temperature range: 10-20°C**, withstands extremes from **-4°C to 40°C**.

#### Heeng in India

- **Heeng is a widely used spice** in Indian cooking
- In India, we do not have ***Ferula assa-foetida***, but other species *Ferula jaeschkeana* is reported from the **western Himalaya (Chamba, HP)**, and *Ferula narthex* from **Kashmir and Ladakh**.
- **Since**, heeng plant prefers **cold and dry** conditions for its growth, **cold desert** areas of the **Indian Himalayan** region are suitable for cultivation of asafoetida.
- **Himachal Pradesh** is the primary **state producing heeng** in India
- **Import statistics:** India imports about 1200 tonnes of raw asafoetida annually from **Afghanistan, Iran and Uzbekistan** and spends approximately **100 million USD per year**.
- **Hathras Hing** received the GI tag in **2023**.

### 4. REFORMS IN THE SPECIAL ECONOMIC ZONES (SEZ) RULES

**NEWS:** The **Department of Commerce** has notified **reforms in the Special Economic Zones (SEZ) rules** to address the **specialized needs of semiconductor and electronics component manufacturing** sectors

### About the Amended Rules

- **Rule 5 of SEZ Rules, 2006:** An SEZ set up exclusively for the sector will require a minimum contiguous land area of 10 hectares, reduced from 50 hectares.
- **Rule 7 of SEZ Rules, 2006:** The Board of Approval for SEZs are allowed to relax the condition requiring SEZ land to be encumbrance-free in cases where it is mortgaged or leased to the Central or State Government or their authorized agencies.
- **Rule 53:** It will allow the value of goods received and supplied on a free-of-cost basis to be included in Net Foreign Exchange (NFE) calculations and assessed using applicable customs valuation rules.
- **Rule 18 of the SEZ Rules:** It allow SEZ units in both sectors to supply domestically into the Domestic Tariff area as well after payment of applicable duties.

### Significance of The Amendments

- It will **boost high-tech manufacturing** in the country and spur the growth of semiconductor manufacturing ecosystem
- The amendment will also result in the **creation of high skilled jobs in the country.**

### About Special Economic Zones

- SEZs are **designated areas within a country** that have **different business and trade regulations** compared to the rest of the country
- **Act:** The **Special Economic Zones Act of 2005**, supported by the **SEZ Rules of 2006**, came into effect in 2006, providing for single-window clearance and simplified procedures.
- **Aim:** SEZs aim to **promote economic growth, increase exports, attract foreign investment, and create employment opportunities.**
- **Operational SEZs:** India currently **has 276 operational SEZs** with 6275 units operating, employing approximately 3.19 million people.

## 5.INDRAVATI NATIONAL PARK

**NEWS:** Recently, Security forces have recovered the **bodies of five more Maoist cadres** during the ongoing anti-Naxal operations in the **Indravati National Park area of Bijapur district** in Chhattisgarh.

### About Indravati National Park

- **Location:** Situated in **Chhattisgarh's Bijapur district**, Designated as a **national park in 1981** and a **tiger reserve in 1983** under Project Tiger initiative.
  - Named after the **Indravati River**, which runs along its **northern border**, separating it from **Maharashtra**.
- **Topography:** **Hilly terrain**, with elevations varying **from 177 to 599** meters above sea level.
  - It serves as an important ecological corridor, linking it to other tiger reserves like **Kawal (Telangana), Tadoba (Maharashtra), and Kanha (Madhya Pradesh).**
- **Vegetation:** Mainly of the **tropical moist and dry deciduous type.**

- **Flora:** Common plant species include **teak, achar, karra, kullu, shisham, semal, haldu, arjun, bel, and jamun.**
- **Fauna:** The reserve home to one of the **last populations of rare wild buffalo.**
  - Other wildlife includes **tigers, leopards, gaurs, sambar deer, chital, sloth bears, nilgai, and blackbucks.**