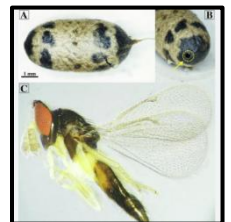


09th October 2025

1. **Nobel Prize in Chemistry:** Recently, the 2025 **Nobel Prize in Chemistry** was awarded jointly to Susumu Kitagawa (Japan), Richard Robson (UK/Australia), and Omar M. Yaghi (USA/Jordan) for their pioneering research on **metal-organic frameworks (MOFs)**.
 - **About MOFs:** Materials that combine **metals and organic molecules** in a stable, porous structure.
 - **Scientific Breakthrough:** MOFs bridge **metals and organics**, two chemical realms once thought incompatible.
 - Structures have **immense internal surface area** and **tunable pores**, enabling selective gas and molecule storage.
 - Marked a **paradigm shift in materials chemistry**, blending rigidity with flexibility.
 - **Applications:** Capture of **carbon dioxide** and removal of Per- and Polyfluoroalkyl Substances (PFAS) and pollutants.
 - MOFs can **harvest water vapor** even from dry desert air.
 - Potential in **gas storage**, **fuel cells**, and **drug delivery**.
 - Chemists now use AI for **rational MOF design** tailored to specific problems.
2. **PM-KUSUM and PM Surya Ghar:** Recently, India announced plans to promote its flagship **PM-KUSUM and PM Surya Ghar schemes** across African and island nations.
 - **Key Highlights:** The initiative will be showcased through the **International Solar Alliance (ISA)** platform.
 - **Aim:** Help countries with **poor electricity connectivity** adopt solar-powered solutions.
 - **About PM-KUSUM (Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhiyan):** Launched: 2019
 - **Objective:** To promote **solar energy use in agriculture** and provide **energy security to farmers**.
 - **Targets:** Set up **100 GW solar power capacity on farmer-owned land**.
 - Install **14 lakh standalone solar pumps**.
 - **Solarise 35 lakh grid-connected** agricultural pumps.
 - **About PM Surya Ghar Muft Bijli Yojana:** Launched: February 15, 2024
 - **Objective:** Provide **free electricity to households** through **rooftop solar installations**.
 - **Subsidy Details:** **60% subsidy** for solar units **up to 2 kW**.
 - **40% subsidy** for **additional capacity between 2–3 kW**.
 - **Subsidy cap: 3 kW** maximum.
 - **Special Components:** **Model Solar Village** to be developed in **every district**.
 - **Incentive to Local Bodies:** ₹1,000 per rooftop solar installation for **ULBs and PRIs**.
3. **Nesolynx Banabitanæ:** Recently, a new wasp species named **Nesolynx banabitanæ** was discovered in Central Park (Banabitan), Salt Lake, West Bengal.
 - **About Nesolynx Banabitanæ:** The species was named in honour of **"Banabitan,"** the local name of Central Park, where it was first identified.
 - **Scientific Name:** *Nesolynx banabitanæ*
 - **Family:** **Eulophidae** – A diverse group of wasps known for their **parasitic behaviours**.
 - **Ecological Role:** The species is a **hyperparasitoid**, meaning it **parasitises other parasitoid wasps**.
 - Specifically, it parasitises the **ichneumonid parasitoid Charops aditya**, which itself attacks **caterpillars of the common palmfly and common castor butterflies**.
 - **Significance of the Discovery:** Marks the **seventh wasp species** to be identified in **India**.
 - Highlights the **rich biodiversity** of urban green spaces like **Salt Lake's Central Park**.
 - Reveals the **complex ecological interactions** within insect food webs and parasitic hierarchies.



4. **PM-SETU:** Recently, the Prime Minister of India introduced the **PM-SETU (Prime Minister's Scheme for Empowerment through Technology Upgradation)**.
 - **About PM-SETU:** A centrally sponsored flagship scheme launched to transform India's skill development ecosystem through technologically advanced and industry-driven **Industrial Training Institutes (ITIs)**.
 - The scheme promotes a "**Government-owned, Industry-managed**" model of vocational training to make India's workforce **globally competitive**.
 - **Nodal Ministry:** Ministry of Skill Development and Entrepreneurship (MSDE)
 - **Objectives:** To upgrade 1,000 government ITIs across India and align them with the **evolving skill needs of industries**.
 - To **bridge the gap** between classroom learning and real-world employability, ensuring Indian youth meet **global skill standards**.
 - **Significance:** Connects Indian youth with **international industry standards and global supply chains**.
 - Strengthens the ITI network to build a **digitally skilled, future-ready workforce**.
 - Supports **MSMEs and local industries** by providing **highly skilled manpower**, contributing to **Atmanirbhar Bharat**.

5. **Online National Drugs Licensing System (ONDLS) Portal:** Recently, 18 State Drug Control Authorities adopted the **Online National Drugs Licensing System (ONDLS) portal** to streamline the processing of drug-related licences.
 - **About ONDLS Portal:** A digital single-window platform for the **online processing of drug-related licences** across India.
 - **Developed By:** The Centre for Development of Advanced Computing (C-DAC) in collaboration with: **Central Drugs Standard Control Organisation (CDSCO)**
 - Directorate General of Health Services (DGHS)
 - Ministry of Health and Family Welfare
 - State/UT Drugs Regulatory Authorities
 - **Objective:** To ensure a **uniform, transparent, and accountable** system for **drug licensing** in all States and Union Territories.
 - **Expected Impact:** Streamlines the **drug licensing process** through digital integration.
 - Promotes **ease of doing business** in the pharmaceutical sector.
 - Enhances **regulatory transparency, accountability, and uniformity** nationwide.

6. **Digital Governance:** Recently, the **National e-Governance Division (NeGD)** under the Ministry of Electronics and Information Technology (MeitY) signed an MoU with the **National E-Governance Services Limited (NeSL)** to promote paperless, transparent, and real-time digital governance across India.
 - **Key Highlights: Integration:** **NeGD's Entity Locker** (cloud-based digital document management platform under DigiLocker) **integrated with NeSL's Digital Document Execution (DDE) platform**
 - **Purpose:** Enable **secure, real-time digital execution of contracts**, including **electronic bank guarantees (e-BGs)**.
 - **About NeGD (National e-Governance Division):** An independent division under **Digital India Corporation (MeitY)**.
 - Provides **technical and advisory support** for implementing **e-Governance programmes** across central and state governments.
 - **About NeSL (National E-Governance Services Ltd):** An **Information Utility** regulated by **Insolvency and Bankruptcy Board of India (IBBI)**.
 - Manages **financial information repositories** and **digital document execution** in **29 states**.
 - Its **DDE platform** offers **secure, paperless execution** for government and corporate documents.

7. **Invasive Alien Species:** Recently, India's conservation scientists raised concerns over the increasing threat of **invasive alien species**.
 - **About Invasive Alien Species:** Non-native species introduced **accidentally or deliberately** — through ornamental use, agriculture, aquaculture, or environmental projects — that **spread uncontrollably**, displacing native flora and fauna.
 - **Global Picture:** **37,000 alien species** introduced worldwide by human activity.
 - Around **3,500 (10%)** cause serious ecological and economic damage.
 - **India's Scenario:** Around **139 invasive alien species identified**, mostly **insect pests** affecting crops.
 - **626 alien aquatic species** recorded, mainly from **aquarium trade, aquaculture, and mosquito control**.
 - **Ecological and Socioeconomic Impacts:** Native species displaced or made locally extinct.
 - Alter **porosity, acidity, turbidity**, and nutrient cycles.
 - Transformation of grasslands, forests, and wetlands.
 - Shrinking habitats force wildlife into human areas.
8. **Common Municipal Solid Waste Management Facilities (CMSWMFs):** Recently, the Union Ministry of Environment, Forest and Climate Change (MoEFCC) proposed exempting **common municipal solid waste management facilities (CMSWMFs)** and common effluent treatment plants (CETPs) from the need to obtain prior environmental clearance.
 - **Key Highlights:** Recommendations made by the **Sectoral Expert Appraisal Committee (EAC) on Infrastructure Projects**.
 - The **EAC observed** that both CETPs and SWM facilities are already regulated under:
 - **Water (Prevention and Control of Pollution) Act, 1974.**
 - **Air (Prevention and Control of Pollution) Act, 1981.**
 - These laws have **comprehensive and stringent regulatory frameworks**, ensuring adequate environmental oversight.
 - **Solid Waste Management Facilities:** Categorised as **"Essential Environmental Services"** by the **Central Pollution Control Board (CPCB)** under the new industrial classification.
 - The **2017 Office Memorandum** had earlier clarified that **only facilities with landfills** required prior clearance.
 - **EAC's Updated Recommendation:** Exempt **all Common Municipal Solid Waste Management Facilities (CMSWMF)** from prior clearance.
 - **Value Addition:** These facilities contribute to the **circular economy** by producing **compost, energy, and secondary raw materials**.
9. **Stubble Management:** Recently, the Centre directed Punjab, Haryana, Uttar Pradesh, and Delhi to intensify their farmer awareness campaigns on **stubble management**.
 - **Key Highlights:** **Stubble collection and storage for industrial utilisation** (e.g., bio-CNG, ethanol, pellet, and compost plants).
 - **Direct seeding and crop diversification** to reduce residue burning.
 - **Community Involvement:** Panchayats, local representatives, and nodal officers must **actively engage farmers at the village level**.
 - **Machinery Promotion:** Encourage use of **rotavators, choppers, bio-decomposers, and mulching equipment** for residue management.
 - **Industrial Linkages:** Connect **bio-CNG plants, ethanol units, compost industries, and thermal plants** with **stubble collection systems**.
 - **Fund Utilisation:** States must ensure **efficient use of allocated funds** to avoid machinery shortages.
 - **Long-Term Measures:** Promote **crop diversification** to reduce dependence on paddy and curb future stubble generation.