Two Wetlands in Bihar Recognised as New Ramsar Sites

Gokul Reservoir and **Udaipur Lake** in Bihar have been designated as new Ramsar Sites.

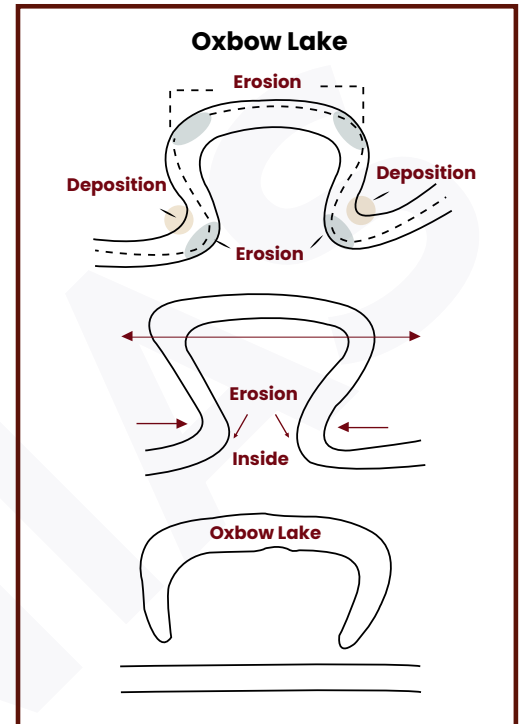- With these additions, India now has 93 Ramsar sites. They cover total area of 1,360,719 hectares.
- Bihar already had **three Ramsar sites – Kabar Jheel (Kabar Taal)** in Begusarai and **Nagi** and **Nakti bird** sanctuaries in Jamui district.

About New Wetlands
- Both Wetlands are **oxbow lake.**
  - An **oxbow** is a crescent-shaped lake lying **alongside a winding river.**
- **Gokul Reservoir** (Buxar district) is located on the southern edge of the **Ganga River.**
- **Udaipur Lake** in West Champaran district is surrounded by the **Udaipur Wildlife Sanctuary.**
  - It is an important wintering ground for many migratory bird species, including pochard (Aythya ferina).

About Ramsar Convention (Convention on Wetlands)
- Adopted in 1971.
- An intergovernmental treaty under **UNESCO.**
- **Objective:** Provides the framework for the conservation and wise use of wetlands and their resources.
- **Criteria:** A wetland must meet at least 1 of 9 criteria such as regularly supporting 20,000 or more water birds, or conserving biological diversity, etc.
- India ratified the Convention in 1982.

Oxbow Lake

India's Cold Desert Biosphere Reserve included in UNESCO's World Network of Biosphere Reserves

UNESCO designated the Cold Desert Biosphere Reserve in India – as part of 26 new sites – to UNESCO's World Network of Biosphere Reserves (WNBR).
- This designation brings India's total to **13 UNESCO Biosphere Reserves,** joining a global **network of 785 sites.**
- Also, **São Tomé and Príncipe** – a Central African island nation – becomes the **first State to have its entire territory designated as a biosphere reserve.**

About Cold Desert Biosphere Reserve
- **Location:** This is India's first high-altitude cold desert biosphere reserve and **one of the coldest and driest ecosystems in UNESCO's WNBR.**
- It is located in **Himalayas** and stretches from **Ladakh** (comprising Leh and Kargil Districts) in north **to Kinnaur** (Spiti valley and Kinnaur district in Himachal Pradesh) **in South.**
- **Protected Areas:** It covers the **Pin Valley National Park** and its surroundings, **Chandratal and Sarchu & Kibber Wildlife Sanctuary.**
- **Biome:** It constitutes a **Cold Desert biome** with harsh climatic conditions, attributed to **two factors** – location on leeward side of Himalayas (making it a rain-shadow zone) and very high elevation.
- **Culture:** Distinct Buddhist culture dominates the region with presence of:
  - **Gompas** (Buddhist monasteries), **Chorten** (remarkable type of stupas) and **Mani Walls** (long and thick platform like row of stones).
  - **Buddhist Chanting of Ladakh,** inscribed on UNESCO's Representative List of the Intangible Cultural Heritage of Humanity.
- **Fauna:** Snow Leopard, Himalayan Ibex, Blue Sheep, Himalayan Wolf, Golden Eagle, etc.

About WNBR
- Launched in 1976, WNBR is **managed by the Man and the Biosphere (MAB) Programme of UNESCO.**
  - Launched in 1971, **MAB is an intergovernmental scientific programme** aiming to establish a scientific basis for enhancing the relationship between people and their environments.
- Network promotes **synergies between human societies and natural ecosystems,** facilitating sustainable development.

National Capital Region (NCR) has highest Ozone pollution levels

In its report, CPCB found that Delhi-National Capital Region (NCR) is the **worst impacted** in the country by high Ozone (O3) pollution, followed by Mumbai Metropolitan Region (MMR).

About Ozone

- **Ozone (O3)** is a variant of oxygen composed of three oxygen atoms. It occurs in two layers of the atmosphere: the **stratosphere (upper layer)** and the **troposphere** (ground level up to 10km).
  - In the **stratosphere**, ozone protects life on Earth from the sun's **ultraviolet radiation.**
  - In the **troposphere,** it is an **air pollutant.**
- The **safe eight-hourly ozone** standard is set at **100 micrograms** per cubic metre (μg/m³), while the one-hour limit is 180μg/m³.

Ground-level Ozone (GLO)

- GLO is a secondary, short-lived pollutant that remains in the atmosphere for only hours to weeks.
- **Factor Responsible:** Created by chemical reactions between **oxides of nitrogen (NOx)** and **volatile organic compounds (VOC).**
  - **Anthropogenic sources:** Transportation, power plants, **residential, agricultural activities**, etc.
  - **Natural sources:** Soil-based emissions of NOx, and wildfire-induced CO and biospheric methane emissions.

Impact of Ground-level Ozone (GLO)

- **Health:** Worsen bronchitis, trigger asthma, etc.
- **Climate:** Absorbs radiation and consequently may acts as a strong greenhouse gas.
  - It is also a major component of **smog.**
- **Agriculture and Ecosystem Impacts:** Interferes with photosynthesis and stunts overall growth of some plant species.

India marked a milestone with launch of first fully indigenous 4G (5G-ready) network

India's first fully indigenous 4G (5G-ready) network has been **deployed by BSNL** and developed through collaboration between C-DOT, Tejas and TCS.

- This provides India the capability to quickly develop technologies for **fast tracking adoption of 5G and laying foundation for 6G.**

Significance of indigenous 4G Stack

- **Strategic Autonomy:** Empowers India to control its telecom infrastructure, therefore reducing dependency on foreign technologies and foreign vendors, and enhancing national security.
- **Cloud Native:** Enables rapid upgrades, scalability and easier future migration path to 5G.
- **Improving Accessibility:** Expected to benefit tribal regions, remote villages, and hilly areas by providing access to quality digital services.
- **Supply Chain Development:** Localised manufacturing and deployment are creating employment, strengthening supplier ecosystems, and nurturing a skilled domestic workforce.
- **Technological Capability:** With this, India is now among the **select five nations globally** with the capability to launch fully indigenous 4G services.

5G and 6G Technologies in India

- Launched in 2022, **5G network has been rolled out in all states and UTs** and is available in most of the districts across the country.
- Currently, **6G technology is under development phase** is expected to be available by 2030.
  - For rapidly rolling out 6G, government has taken initiatives like Bharat 6G Vision, establishment of 100 5G labs at academic institutions, and facilitating Bharat 6G Alliance.

Stampede occurred at a political Rally in Karur, Tamil Nadu

About Stampede
- It's an **impulsive mass movement of a crowd that often results in injuries** and **deaths**
- **Stampedes in India:**
  - Nearly **4,000 stampede events** were recorded in last 3 decades.
  - 3,074 lives were lost in stampedes (2000-2022).
  - Studies show majority stampedes in India took place in religious gatherings.

Causes and Triggers for Crowd Disasters
- **Human Behaviour:**
  - **Breakdown of Cooperation (Mintz's Theory):** In panic situations, cooperation works only until it breaks—once disturbed, it collapses and worsens panic.
  - **Craze (Smelser's Theory):** He defined "craze" as rush of people, where the pursuit of something gratifying can make crowds act against their own interests.
- **Structural Cause: E.g.,** Blocked exits or evacuation routes or lack of light.
- **Management Flaws:**
  - **Miscommunication:** E.g., In **Tirupati (2025)**, people rushed because they mistakenly thought ticket counters had opened.
  - **Others:** Crowd flow not being divided for different groups, etc.

> **NDMA Guidelines on Crowd Management**
> - **Capacity Planning:** Monitoring visitor flow, ensuring basic facilities (water, rest), using multiple routes, etc.
> - **Risk and Vulnerability Analysis:** Assessing threats and risks at mass gatherings to plan ahead and support efficient rescue and relief.
> - **Develop a Course of action: By outlining options, required** resources, and matching them with availability.

At UNGA week, India hosts "high-level meeting of like-minded Global South countries"

India pitched for more consultations between countries of the global south and a joint push for UN reforms.
- The concept of the Global South encompasses regions in Latin America, Africa, Asia, and Oceania, **representing developing nations with shared historical contexts of colonization and economic marginalization.**

Role of Global South in Emerging World Order
- **Multilateral Reforms: Advocates for reform of global governance institutions** like UN Security Council, World Bank, WTO for a fairer and more equitable world order.
- **Economic Power:** Command a majority of global GDP growth, have large consumer markets and younger workforces.
- **Strengthening Multipolarity:** By developing alternative institutions like New Development Bank, African Union, BRICS, etc.
- **Sustainable Development:** Promotes sustainable development through **South–South cooperation** and partnerships in critical areas like poverty alleviation, food security, environmental conservation, etc.

India's Engagement with the Global South
- **Economic Cooperation:** Increasing trade relations, particularly with African and Latin American countries, significant investments in sectors like telecommunications, pharmaceuticals, etc.
- **Development Assistance:** Infrastructure development, lines of credit, capacity building programs and technical assistance.
- **Multilateral Engagements:** Through leadership in forming multilateral organizations like International Solar Alliance, Coalition for Disaster Resilient Infrastructure, and partnerships such as India-Africa Forum Summit, etc.
- **Diplomatic Bridge:** India maintains a policy of strategic autonomy, engaging with both the West and Global South to bridge the divide on critical international issues like climate change, trade, and security.

Also In News

Astrosat

India's first dedicated Space Astronomy Observatory, AstroSat completes a decade of operations.

About Astrosat
- AstroSat is the first dedicated Indian astronomy mission aimed at **studying celestial sources in X-ray, optical and UV spectral bands** simultaneously.
- It enables the **simultaneous multi-wavelength observations** of various astronomical objects with a single satellite.
- It was launched into a **650 km orbit by PSLV-C30** from Sriharikota.
- **Scientific Objectives of Mission:**
  - Understand high-energy activities in binary star systems with neutron stars and black holes.
  - Study star birth regions and high energy processes in star systems.
  - Detect new briefly bright X-ray sources in the sky.

PM E-Drive Scheme

Ministry of Heavy Industries issued operational guidelines for deployment of EV public charging stations under the PM E-DRIVE scheme.

About PM E-DRIVE (Electric Drive Revolution in Innovative Vehicle Enhancement) scheme
- **Ministry -** Ministry of Heavy Industries (MHI).
- **Objective:** To accelerate Electric Vehicles (EV) adoption and establish essential charging infrastructure across the country, promoting cleaner and more sustainable transportation.
- **Major Component:**
  - **Subsidies/Demand Incentives** for **e-2Ws, e-3Ws,** e-ambulances, e-trucks, e-buses and other emerging EVs.
  - **Grants for Creation of Capital Assets:** Funding for acquisition of e-buses, establishment of network of charging stations, and upgrading testing facilities of MHI.

National Security Act (NSA) 1980

Sonam Wangchuk, who was leading the movement seeking statehood and protections under Sixth Schedule for Ladakh, has been detained under NSA.

NSA, 1980
- **Empowers Centre & States to detain individuals** to prevent them from acting in a manner "prejudicial to the defence of India, relations with foreign powers, the security of India, or the maintenance of public order or essential supplies".
- **Authorities:** District Magistrates (DMs) and Police Commissioners can issue detention orders with authorization.
- Act mandates that **grounds of detention must be communicated to detainee within 5 days** (up to 15 days in special cases).
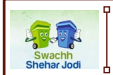
Acoustic Vehicle Alerting System (AVAS)

Recently, **Ministry of Road Transport and Highways** mandated in a draft notification that all new private and commercial electric vehicles (EVs) are to be fitted with AVAS from October 1, 2026.
- This move is aimed at **alerting pedestrians** about approaching EVs which do not emit any sound and sometimes result in accidents.

About AVAS
- It is a safety feature in EVs that emits varying sounds with varying speeds using external speakers to alert pedestrians about their presence.
- Countries like the US, Japan and some EU nations have already mandated uses of AVAS in hybrid vehicles.

Swachh Shehar Jodi

The **Ministry of Housing and Urban Affairs (MoHUA)** has launched the Swachh Shehar Jodi (SSJ) initiative.
- It will be **implemented** under the **Swachh Bharat Mission- Urban (SBM-U).**

About SSJ initiative
- It is a **structured mentorship and collaborative action** program involving 72 mentor cities and around 200 mentee cities.
  - The mentee cities will get direct exposure to well performing cities to replicate their best practices.
- **Aim: Foster knowledge and experience sharing, peer learning and transforming best practices** in sanitation and waste management across urban India.

SODAR (Sound Detection and Ranging) System

SODAR (Sound Detection and Ranging) system facility has been inaugurated at India Meteorological Department (IMD), Delhi.
- It is designed & developed by CSIR–Advanced Materials and Processes Research Institute (AMPRI), Bhopal.

About SODAR
- **Function:** SODAR works by sending sound pulses and subsequently monitoring the intensity and frequency of the returned signal.
  - Specifically, it determines the lower-atmosphere wind profile and temperature structure.
- It provides information on height of inversion, height of fog layer, strength of turbulence, etc.

NASA-ISRO Synthetic Aperture Radar (NISAR)

NISAR satellite sends first radar images of Earth's surface.

About NISAR
- It is the world's first Earth observation satellite to carry dual-frequency synthetic aperture radars—**L-band** and **S-band,** on a single platform.
- Placed in a **Sun-synchronous orbit.**
- It will deliver high-resolution, all-weather, day-and-night imagery of Earth's land and ice surfaces, revisiting each location every 12 days.
- **Applications:** Disaster management, climate monitoring, etc.
- It was launched aboard **ISRO's GSLV-F16:**
  - This was the first time GSLV vehicle successfully placed a satellite into a Sun-synchronous Polar Orbit.

Ways and Means Advances (WMA)

The RBI has recently set the WMA limit for the Central Government for the second half of the 2025–26 financial year.
- WMA limit is decided by RBI in consultation with the Central government.

About WMA
- It is a **temporary advance** given by the **RBI** to the central to cover any mismatch in receipts and payments.
  - Unlike ad hoc Treasury Bills, the instrument of WMAs is **not a source of financing fiscal deficit.**
  - WMA is also available for state governments and Union Territories.
- **Legal Framework: RBI Act, 1934** authorises the central bank for WMA
- **Interest Rate:** Interest rate on WMA is the RBI's repo rate
  - However, interest on **overdraft** (amounts in excess of their WMA limits) is 2 % above the repo rate.
- **Duration:** It shall be fully paid off within 3 months from the date of making the WMAs.

Personality in News   📰 Rani Rashmoni

PM paid tribute to Rani Rashmoni on her birth anniversary.

About Rani Rashmoni (1793 - 1861)
- Born in Kona village, in present-day North 24 Parganas.
- **Contributions:**
  - **Cultural Contribution:** Established the Dakshineswar Kali temple in Bengal and patronized Sri Ramakrishna Paramahansa.
  - **Social Contribution:** Raised her voice against social ills like **polygamy, child marriage** and **sati.**
    - Also submitted a draft bill against **polygamy** to the **East India Company.**
    - Supported social reformers like Ishwar Chandra Vidyasagar.
- **Values:** Empathy, compassion, etc.

AHMEDABAD BENGALURU BHOPAL CHANDIGARH DELHI GUWAHATI HYDERABAD JAIPUR JODHPUR LUCKNOW PRAYAGRAJ PUNE RANCHI