1. **BIMSTEC:** At the 6th BIMSTEC Summit held in Bangkok, the Prime Minister of India unveiled a 21-point Action Plan to strengthen regional cooperation and announced the setting up of a Centre of Excellence for Traditional Medicine to foster research and dissemination in the sector.
   - **About the recent key initiatives:**
     - **Business & Trade**: Set up a BIMSTEC Chamber of Commerce
     - **Information Technology**: Pilot study to assess Digital Public Infrastructure (DPI) needs and enable UPI payment connectivity across member nations.
     - **Disaster Management**: Establish a Centre of Excellence in India and conduct the 4th joint disaster management exercise
     - **Space Cooperation**: Develop ground stations for training and remote sensing and promote **Nano Satellite manufacturing** and **launching**
     - **Capacity Building & Training**: Launch the **BODHI Initiative** (training 300 youth/year)
     - **Youth Engagement**: Organize BIMSTEC Young Leaders' Summit and launch BIMSTEC Hackathon & Young Professional Visitors Programme



   - **About BIMSTEC:** It is a regional multilateral organization that connects South Asia and Southeast Asia, established in 1997 through the Bangkok Declaration.
     - **Member Countries: South Asia** - Bangladesh, Bhutan, India, Nepal, Sri Lanka & **Southeast Asia -** Myanmar, Thailand.
     - **Key Features:** Acts as a bridge between South and Southeast Asia, linking the Himalayan region with the Bay of Bengal → Focuses on sectors like economic growth, trade, technology, energy, security, and connectivity → Serves as an alternative to SAARC for promoting regional cooperation.
2. **Inter-Parliamentary Union (IPU):** The Speaker of the Lok Sabha will head a parliamentary delegation to attend the 150th Assembly of the Inter-Parliamentary Union (IPU) in Tashkent, Uzbekistan.
   - **About Inter-Parliamentary Union (IPU):** It stands as the world's first multilateral political organization, formed to promote dialogue and peace through parliamentary channels which was established in 1889.

- Serves as a global platform for cooperation among national parliaments, fostering mutual understanding and democratic practices across borders.

- **Aim**: To advance democracy by supporting **transparent, accountable, inclusive, and representative parliamentary systems** worldwide.
- **Key Objectives**: Encourage **collaborative action** on pressing global issues like **sustainable development**, **human rights**, **gender equality**, and **global peace**.
- Strengthen the capacity of national parliaments, making them more **resilient, effective, and people-centric**.
- **HQ:** Geneva, Switzerland

3. **Vibrant Villages Programme-II (VVP-II**): Recently, the Union Cabinet, chaired by Prime Minister, has approved the launch of **VVP-II** for the financial years 2024–25 to 2028–29**.**
   - **About VVP:** Introduced in the Union Budget 2022–23 (for implementation till 2025–26), is a **Centrally Sponsored initiative** aimed at developing villages along the northern border to enhance the living standards of residents in designated border areas.
   - **Coverage:** Select strategic villages in border areas of 18 States/UTs, including: Arunachal Pradesh, Assam, Bihar, Gujarat, J&K, Ladakh, Manipur, Meghalaya, Mizoram, Nagaland, Punjab, Rajasthan, Sikkim, Tripura, Uttarakhand, Uttar Pradesh, and West Bengal.
   - **Key Objectives:** Improve livelihoods and living standards in border villages.
     - Enhance internal security by integrating border populations as partners in surveillance.
     - Tackle trans-border crimes and boost national unity.
     - Promote cultural integration and national pride in remote villages.
4. **DEEPFAKES**: As Artificial Intelligence (AI) continues to advance rapidly and becomes increasingly integrated into digital platforms, the Government of India is taking proactive measures to address the growing threat of deepfakes.
   - **About Deepfakes:** It refer to synthetic media, which includes videos, images, or audio recordings generated and altered using advanced artificial intelligence techniques, particularly deep learning algorithms.
   - **Steps taken by the GOI:**
     - **Information Technology Act, 2000 (IT Act):** It includes penalties for identity theft, privacy

-violations, sharing obscene or child abuse content, and other unlawful digital activities.
  - **IT Rules, 2021 & Amendments:** Intermediaries must follow due diligence, promptly remove unlawful content when flagged, and prevent content that promotes hate, threatens national integrity, misleads users, or spreads misinformation like deepfakes.
  - **Indian Computer Emergency Response Team (CERT-In)**: It include deepfake advisories, Cyber Swachhta Kendra, CSIRT-Fin, and cyber hygiene awareness, along with campaigns like Cyber Security Awareness Month, Safer Internet Day, and Cyber Jagrookta Diwas.
  - **Ministry of Home Affairs (MHA)**: **Set up the** Indian Cyber Crime Coordination Centre (I4C)**, the** National Cyber Crime Reporting Portal**, and a** toll-free helpline 1930 **for reporting cyber frauds, including deepfakes.**

5. **Ottawa Convention:** NATO members Poland, Finland, and all three Baltic states have recently announced their withdrawal from the Ottawa Convention, citing growing military threats from Russia and increases concern over civilian casualties from anti-personnel landmines.
   - **About Ottawa Convention:** It is the global landmine treaty aimed at eliminating anti-personnel mines.
     - Anti-personnel landmines are hidden in the ground and detonate when someone steps on or nears them.
   - It bans the **use, production, stockpiling, and transfer** of anti-personnel landmines.
   - It includes provisions for **victim assistance**, especially for those who have lost limbs or suffer permanent disabilities.
   - Countries **not part of the Ottawa Treaty** include **Russia, US, China, India, and Israel**.
   - **Recent Status:** According to the International Committee of the Red Cross (ICRC), more than 80% of mine victims are civilians.
     - As of August 2024, the UN reported 1,286 civilian victims of mines in Ukraine, making it the most mined country in the world.
6. **Green Tug Transition Programme (GTTP):** The Union Minister of Port Shipping and Waterways was recent launched the Standard Operating Procedure (SOP) for Green Tug Transition Program (GTTP).
   - **About:** GTTP was launched on May 22, 2023, as a key initiative under the '**Panch Karma Sankalp'**.

- It aims to phase out conventional fuel-based harbour tugs operating in Indian Major Ports and replace them with green tugs powered by cleaner and more sustainable alternative fuels.
- **Implementation Phases:** Phase 1 will begin on October 1, 2024, and continue until December 31, 2027.
- During this phase, four Major Ports — Jawaharlal Nehru Port Authority, Deendayal Port Authority, Paradip Port Authority, and V.O. Chidambaranar Port Authority — will procure or charter at least two green tugs each, based on standardized designs and specifications issued by the Standing Specification Committee (SSC).
- **Nodal Agency:** The National Centre of Excellence in Green Port & Shipping (NCoEGPS) will act as the nodal entity for this programme.
- **Aim:** India aims at becoming a 'Global Hub for Green Ship' building by 2030.
- The 'Green Hybrid Tugs' will be powered by Green Hybrid Propulsion systems, and will subsequently adopt non-fossil fuel solutions like Methanol, Ammonia, and Hydrogen.

7. **Zoonotic diseases & One Health Approach:** India is set to launch a first-of-its-kind inter-ministerial scientific study to address zoonotic spillover risks at the human-wildlife-environment interface, focusing on bird sanctuaries and wetlands across Sikkim, Maharashtra, and Tamil Nadu.
   - **About:** The study was launched at the Indian Council of Medical Research (ICMR) headquarters and aims to develop a real-time surveillance model using the One Health approach to detect and diagnose zoonotic diseases in bird sanctuary workers and nearby residents.
     - The study aims to establish India's first early warning system for zoonotic spillovers, enhancing preparedness for potential public health threats.
   - **About:** Zoonotic diseases (also known as zoonoses) are caused by germs that spread between animals and people.
     - Some people are more likely to get really sick after being infected with certain diseases.
     - There are simple ways to help protect yourself and your family from zoonotic diseases
   - **About One Health Approach:** It integrates wildlife health, environmental science, and human health to anticipate and mitigate public health risks.
     - The National One Health Mission (NOHM) reflects the Government of India's commitment to leveraging cutting-edge science in real-world settings.

- The project involves collaboration between the Ministry of Environment, Forest and Climate Change, Ministry of Health and Family Welfare, and Ministry of Agriculture.

8. **Pope's pit viper:** A new study has uncoded the mysteries of how the venom of Pope's Pit Viper, a snake species native to northern and northeastern parts of India, works.



- **About Pope's Pit Viper:** It is "Big Four" venomous snakes—Russell's Viper, Saw-Scaled Viper, Spectacled Cobra, and Common Krait—have undergone considerable research.
  - The venom composition of Pope's Pit Viper (Trimeresurus popeiorum), an arboreal, nocturnal serpent indigenous to the dense forests of Northeast India, remains unexamined until now.
- **Key findings:** The study can help establish the foundation for venom toxicity, pharmaceutical advancements, and enhanced -antivenom compositions. It was recently published in the International Journal of Biological Macromolecules.
  - Contemporary label-free quantitative proteomics identified 106 proteins in the venom, categorized into 12 toxin families.
  - 60% of its venom comprises enzymes that break down proteins, damage tissue, interfere with blood coagulation, and induce local haemorrhage.
  - The venom's harmful components are mostly toxic enzymes, demonstrating their deleterious effects on the victim.
  - By comprehending the proteomic complexity of Pope's Pit Viper venom, researchers have established a foundation for venom toxicity, pharmaceutical advancements, and enhanced antivenom compositions.
  - As India endeavours to decrease snakebite mortality by 50% by 2030, such innovative research would facilitate transforming venom studies into life-saving medical treatments.