VISIONIAS INSPIRING INNOVATION

NEWS TODAY

27th & 28th July, 2025

India and Nepal have finalised the Agreement on Mutual Legal Assistance (MLA) in Criminal Matters

India and Nepal also have decided to expedite the revision of their 1953 **Extradition Treaty,** which is seen as outdated.

- In the absence of an updated Extradition Treaty, legal and administrative challenges have hindered smooth transfer of criminals between India and Nepal.

About Extradition

- **Definition:** An extradition is the surrender by **one State to another** of a person desired to be dealt with for **crimes which he has been accused of or convicted for** and which **are justifiable in the courts** of the **other states.**
  - **The Ministry of External Affairs (MEA)** is the **central authority.**

About India-Nepal Mutual Legal Assistance (MLA) Agreement

- **Mutual legal assistance (MLA) in criminal matters:** It help countries request evidence, share intelligence, and support investigations. India has signed such treaties **with 42 countries** including the **U.S. (2005), Israel (2015),** etc.
  - **The Ministry of Home Affairs** is the **central authority.**
- **Benefit of the Agreement:** It will **formalize** and **standardize** procedures for **cooperation in criminal matters.**
  - The officials will have a **clear legal mandate** to share **evidence and information.** This leads to **faster investigations and prosecutions.**

What were the Challenges Faced in the Absence of MLA Agreement

- **Open Border Exploitation:** India & Nepal share **an open border (1,751 km)** & Groups like the **Indian Mujahideen** used Nepal as a transit or hideout route, with operatives fleeing India via Nepal to third countries.
- **Criminal Safe Havens:** Nepal until now has been the only **neighboring country (aside from Bhutan)** without an **MLA with India,** which inadvertently **made it attractive** to **criminals as a safe haven.**
  - **E.g.,** Nepal have occasionally arrested Pakistani nationals involved in fake Indian currency rackets.
- **Reciprocity Uncertainty:** Without a binding treaty, cooperation often relied on assurances of reciprocity and there were no guarantees.

In a first, Uttarakhand to assess 'Tourist Carrying Capacity' in Nainital District

The survey aims **to formulate a long-term strategy** to protect the popular hill towns in the district from **increasing pressure due to unregulated tourism, mounting vehicular traffic, population pressure,** among others.

- Previously, in September 2024, **National Green Tribunal** directed the state government to classify the Nainital district based on **carrying capacity and environmental sensitivity.**

What is Carrying Capacity?

- It refers to the **maximum threshold of population** an **area** can bear in **relation to the available resources.**
- It depends on both **biotic (e.g. vegetation, hydrology)** and **abiotic (e.g. terrain, climate) factors.**
- **Two major approaches for assessing Carrying Capacity:**
  - **Planetary boundaries approach:** Applied in the context of environmental crises such as global warming, land degradation, pollution, water stress.
  - **Biocapacity Overshoot approach:** It is sustainability metric about the demand humans put on the earth systems by consuming total annual productivity of natural systems within a few months every year. **e.g., Earth Overshoot Day.**
- **Significance of carrying capacity in planning for sustainable development:** Carrying capacity assessment based on **precautionary principles** (refer infographic) provides the option to practically deal with the tussle between **'developmental governance'** and **'sustainability of development'.**

Precautionary Principle for assessment of Carrying Capacity

Taking Preventive actions in face of uncertainty

Shifting burden of proof on proponents of the activity

Exploring alternatives to potential harmful actions

Increasing public participation in decision-making

New Study Identifies Global Hotspots of Zoonotic Threats

This landmark study presents the **first comprehensive global assessment of zoonotic diseases (e.g., Ebola, Nipah, etc)** listed as **priorities** by the **World Health Organization (excluding COVID-19).**

- **Definition:** Zoonotic diseases (also known as zoonoses) are caused by germs **(e.g.,** viruses, bacterial, parasites, and fungi) that spread between animals and people.

Key Findings

- **Globally,** 9.3% of the land surface is at high (6.3%) or very high (3%) risk of disease outbreaks.
- **Global Zoonotic Disease Hotspots:** Latin America and Oceania (18.6%) are the most at-risk regions, followed by Asia (6.9%) and Africa (5.2%).
  - About 3% of the world's population resides in high or very high-risk zones; 20% lives in medium-risk areas.

Anthropogenic Drivers Influencing the Risk of the Priority Diseases

- **Climate Factors:**
  - **Disease risk spikes** in warmer climates and rises with increased rainfall up to a threshold.
  - **Water deficits** promote animal congregation near limited resources, intensifying human-animal contact and transmission potential.
- **Environmental and Land-Use Factors:**
  - **High livestock density** raises spillover risk by increasing infectious pressure from concentrated animal populations near human settlements.
  - **Frequent land-use changes** and proximity to forests amplify human-wildlife interactions, contributing to outbreak risk.
- **Population density** has the strongest individual influence on outbreak risk, especially in rapidly urbanizing, unplanned areas with poor health infrastructure.

Policy Recommendations

- **Climate adaptation,** sustainable land-use practices, and **urban planning reforms** are essential.
- **Health system strengthening,** especially for zoonosis surveillance, must be prioritized in high-risk zones.
- **Machine learning models** can effectively identify and prioritize surveillance in vulnerable regions.
- **Collaboration across sectors:** climate, agriculture, environment, health — is necessary for **One Health**-based global preparedness.

Indian Army Enhances Combat Capabilities to Advance the Integrated Battle Group Doctrine

Amid rising **collusive threats** from **China & Pakistan** (reinforced during **Operation Sindoor**), the Indian Army is establishing **'Rudra' brigades & 'Bhairav' commando battalions** to enhance swift offensive capabilities along borders.

Structural Reforms in Indian Army's Combat Capabilities

- The Army is going in for **'Shaktibaan' artillery regiments,** with special **'Divyadrishti' surveillance and loitering munitions batteries,**
  - The Army will equip all its infantry battalions with drone platoons, against the backdrop of drone warfare.
- **Bhairav Light Commando Battalions:** Raised from regular infantry, these battalions are trained for high-speed, high-mobility operations with modern drones, gadgets, and lightweight weaponry.
- **Rudra All-Arms Brigades:** Existing units are being converted into integrated formations **combining infantry, mechanised infantry, tanks, artillery, UAVs, and special forces.**
  - This is in tune with the **long-pending proposal** to restructure some **Army formations** into **self-contained Integrated Battle Groups.**

About Integrated Battle Groups (IBGs)

- **Concept:** The IBGs are envisioned as **agile, brigade-sized combat formations** better suited for modern warfare with the support of technology.
  - These formations will be tailor-made based on three factors: **Threat, Terrain, and Task.**
- **Size:** Each IBG will have a troop strength of around 5,000 personnel.
- **Post-Operation Parakram**, the IBG Doctrine emerged as part of the **Cold Start or Pro-Active Operations Strategy.**
  - **Cold Start Doctrine:** Military strategy developed by India to rapidly mobilize and deploy forces for limited, swift, and focused strikes against Pakistan.

IBGs Operational Philosophy

- **IBG Application: Pre-emption** (gain initiative); **Dislocation** (striking at vulnerability); **Disintegration** (breaking the cohesion of the enemy by disrupting his command-and-control systems).
- **Time-Space-Force-Information Dominance:** The operational art of IBG application will be to gain control/ dominate spaces with requisite force capability, in the earliest time frame.
- **Technology Empowerment and Force Modernisation:** IBGs, with complementary technologies and empowered leadership, will be the key to tactical wins and operational success.

TCS's revised Policy raises concerns of Layoff among Employees

Tata Consultancy Services (TCS) has introduced a new policy **limiting bench time to just 36 Business Days a year** which raised **concerns about employee deployment and job continuity.**

- Over past year, some other IT services companies including Wipro, Infosys, Accenture, etc., have reduced bench sizes **to defend margins and improve utilization rates.**

Why IT firms are reassessing their Benching Policy?

- **Cost management:** Non-billable employees strain company finances during low demand.
- **Demand-Supply gap:** Tech automations and project cancellations reduce need for buffer staff.
- **Utilisation Rates:** Firms aim to improve project to employee ratios for profitability.

Ethical and Societal Concerns

- **Corporate Social Responsibility (CSR):** IT firms have a social responsibility to ensure fair and humane workforce management practices, especially given the substantial investment in employee development.
- **Worker rights:** Striking a balance between business efficiency and employee well-being is crucial. Policies should not inadvertently foster a **"hire and fire" culture.**
- **Psychological impact:** Anxiety, stress, and other mental health issues among the workforce.

Conclusion

The transformation of policies in the IT sector reflects a dynamic industry adapting to new economic realities and technological advancements. For the sustainable growth of India's IT sector, a collaborative and empathetic approach is essential, ensuring that policies balance business imperatives with the crucial need for a skilled, engaged, and secure workforce.

Also In News

Brihadisvara Temple

Recently, Prime Minister offered prayers at Brihadisvara Temple in Tamil Nadu.

About Brihadeeswara Temple

- It is also known as **Peruvudaiyar Kovil and is located in Thanjavur.**
- Testimony to the **Dravidian architecture** of the Chola Period.
- Dedicated to **Lord Shiva** represented as a huge 'Lingam'.
- Temple was built around 1010 AD by the **Chola king Rajaraja Chola I.**
- The temple's inscriptions and frescoes narrate the tale of the **rise and decline of the city's fortunes.**
- It is also listed as a part of the **UNESCO World Heritage Sites.**
  - Considered as **one of the three 'Great Living Chola Temples'** along with the **Gangaikondacholeeswaram Temple** and **Airavastesvara Temple.**

Exercise Bold Kurukshetra

14th Edition of India–Singapore Joint Military Exercise, **Exercise Bold Kurukshetra 2025** commenced on July 27, 2025.

About Exercise Bold Kurukshetra

- The exercise will be conducted as a Table Top Exercise and Computer-Based Wargame, aimed at **validating operational procedures for mechanised warfare.**

Organic Certification

APEDA has refuted certain allegations against Organic Cotton Certifications.

About Organic Certification in India

- **National Programme for Organic Production (NPOP):** Implemented by **APEDA, Union Ministry of Commerce & Industry,** programme involves the accreditation of Certification Bodies, standards for organic production, promotion of organic farming and marketing etc.
  - **NPOP standards** for production and accreditation system have been **recognized by European Commission and Switzerland** for unprocessed plant products as equivalent to their country standards.
- **Participatory Guarantee System (PGS - India) Certification:** Is a process in which producers assess, inspect, and verify the production practices of each other and collectively declare the entire holding of the group as organic.

Heavy Water

In a significant advancement for India's nuclear self-reliance, TEMA India Ltd. commissioned India's first private test facility for depleted Heavy Water upgradation.

About Heavy Water

- Also known as **Deuterium Oxide** (D_2O), it is a form of water where **Hydrogen atom is replaced with Deuterium** (heavier isotope of Hydrogen).
- **Applications**
  - **In Nuclear reactors:** Moderator (slows down neutrons) and coolant in the reactor core.
  - **Others:** As a solvent in Nuclear Magnetic Resonance (NMR) Spectroscopy, for detecting certain neutrinos, etc.

Majuli Island

Majuli residents combat riverbank erosion by planting Kanchan trees along the Brahmaputra River.

About Majuli Island

- Majuli is the **world's largest river island** in the Brahmaputra River.
- It became **India's first river island district in 2016.**
- Formed by the **Brahmaputra River (south)** and **Kherkutia Xuti + Subansiri River (north).**
- Surrounded by **wetlands (beels) and small islets locally known as "Chaporis".**
- Listed in **India's Tentative List for UNESCO World Heritage Sites**
- Hosts **Sattras (Vaishnavite monasteries)** that serve as cultural and spiritual centers.
  - The Institution of Satra is a unique feature of Vaishnavism in Assam, founded by Sankardeva, the father of Assamese culture.

Accelerometer

Google's Android Earthquake Alert system has detected over 18,000 earthquakes using phone accelerometer signals.

About accelerometer:

- An accelerometer is defined as a sensing device that **measures acceleration** and **detects the frequency** and intensity of human movement
- **Principle of Functioning:** Accelerometers work according to Newton's law of motion, the force on an object is equal to its mass times its acceleration.
- **Can measure both:** Static acceleration (due to gravity) & dynamic acceleration (car crash).

Key Applications:

- **Digital Devices:** smartphones, Laptops, digital cameras- for rotating the display.
- **Vehicles:** Used to trigger airbags.
- **Drones:** to stabilize their orientation mid-flight.

Deep Brain Stimulation

Deep-brain stimulation (DBS) is a medical technique where **doctors implant electrodes** deep inside specific **areas of the brain** to treat certain disorders.

About DBS

- **Concept:** The electrodes are connected to a pacemaker-like device placed under the skin in the chest, which sends controlled electrical impulses to adjust abnormal brain activity.
- **How Does it Work?**
  - DBS works by **modifying how groups of neurons talk** to each other. Many of these **disorders involve faulty electrical signals** in the brain.
  - Delivering **electrical pulses through DBS** can **interrupt** these **erratic signals, helping reduce symptoms.**
- DBS is most **commonly used for** Parkinson's disease, dystonia, etc.

Flame Retardant Materials

Recently, ICMR submitted to the NGT that it will initiate a study to evaluate whether **chemical compounds** found in flame retardants materials are **potentially carcinogenic.**

About Flame Retardants

- Flame retardants are various **chemicals applied to materials to prevent burning or slow the spread of fire.**
- They are highly **resistant to degradation in the environment.**
- **Chemicals used as flame retardants:** Tris (1-chloro-isopropyl) phosphate **(TCIPP),** Tris (1,3-dichloro-2-propyl) phosphate **(TDCIPP),** Tris (2-chloroethyl) phosphate (TCEP).

Paithani Sarees

The Prime Minister in the monthly radio programme had praised the traditional craftsmanship of **Paithani sarees.**

About Paithani sarees:

- The Paithani sari, **known as the 'mahavastra** of Maharashtra', is **known for its rich, vibrant colors woven in pure silk and gold zari.**
- The birthplace of Paithani, is the medieval town of Paithan, located on the banks of the River Godavari.
  - Originated during the **6th century B.C.**
- **Distinctive style:** with bold patterns and traditional motifs.
  - Special designs in Pallu and its borders: peacock, lotus, mango
  - Uses designs borrowed from the rock-cut caves of Ajanta and Ellora.
- **Geographical Indication (GI) tag:** Awarded in 2010.