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Daily Current Affairs

To The Point

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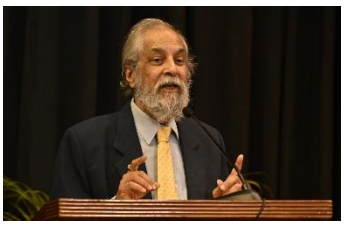
GS Paper 2 – Governance, Constitution, Polity, Social Justice

1 India's Prison Conditions Threaten Global Extradition Efforts, Warns Justice Lokur



Context: India's deteriorating **prison infrastructure** is emerging as a major roadblock in its international **extradition efforts**, especially for high-profile economic fugitives. Former Supreme Court Judge **Justice Madan B. Lokur** has raised critical concerns about the **human rights standards** in Indian jails and their impact on the country's **legal credibility** abroad.

Alarming Warnings from Justice Lokur:

- At the launch of the **India Justice Report 2025**, Justice Lokur, currently serving as Chair of the **UN Internal Justice Council**, highlighted that unless India improves its **custodial conditions**, extraditions from nations like the **UK, Canada, and European Union countries** will continue to be denied on **humanitarian grounds**.

Background: India's Pursuit of Fugitives:

- India has been actively seeking the return of several economic offenders, such as **Mehul Choksi**, **Nirav Modi**, and **Vijay Mallya**, accused of large-scale financial fraud. However, these efforts are increasingly hampered by **international courts' reluctance** to send individuals back to what they view as **inhumane prison conditions**.

A UK Court's Blow to India's Case:

A pivotal moment came when a **UK appellate court refused** to extradite **Sanjay Bhandari**, a defence consultant facing charges of **tax evasion and money laundering**. The court cited **Tihar Jail's substandard conditions** and India's **failure to provide credible assurances** regarding prisoner welfare.

"This verdict sets a **troubling precedent**, affecting over **100 pending extradition cases**," warned Justice Lokur.

Disturbing Incidents from Indian Prisons:

Recent episodes have intensified global scrutiny:

- **Tillu Tajpuria**, a Tihar inmate, was **beaten to death on CCTV** while guards stood by.
- **Christian Michel**, linked to the AgustaWestland scam, refused bail, preferring jail over **restrictive bail conditions**.
- **Jagtar Singh Johal** and **Ankit Gujjar** both **died in custody**, raising serious questions about **oversight and accountability**.

India Justice Report 2025: Eye-Opening Insights:

This year's report provides a **data-rich snapshot** of systemic failures in India's justice machinery:

Police Force

- Only **1 civil police officer per 831 citizens**.
- **17% of police stations** lack **CCTV** monitoring.
- **30% lack women's help desks**.
- **No State/UT meets its women recruitment quotas**.

Prison System:

- **Uttar Pradesh** leads in **overcrowded prisons**.

- **91% of Delhi's jail inmates** are **undertrials**, reflecting **severe delays in justice**.
- **Mental health support** is nearly non-existent in many facilities.

Judiciary and Legal Aid:

- In **Bihar**, **71% of cases** in lower courts are pending for over **three years**.
- **Per capita spending**:
    - Judiciary: 182
    - Prisons: 57
    - Legal Aid: **6**
- **No State** allocates more than **1% of its total budget** to the judiciary.

Global Human Rights Standards Pose a Challenge:

Courts in **Europe and North America**, bound by **strict human rights charters** (e.g., **European Convention on Human Rights**, **Canadian Charter of Rights and Freedoms**), are unlikely to allow extraditions to India unless **tangible reforms** are demonstrated in:

- **Prison infrastructure** (clean water, health facilities, and hygiene),
- **Surveillance systems** (functional CCTV and real-time oversight),
- **Prison staff accountability** and **training** in rights-based detention practices.

Comparative Insight: How India Ranks Globally:

- As per **World Prison Brief**, India ranks **5th** globally in terms of **prison population**, yet allocates **far less per prisoner** than nations like the **UK, Germany, or South Africa**.
- The **UN Standard Minimum Rules for the Treatment of Prisoners** (also known as the **Nelson Mandela Rules**) continue to be **routinely violated** in India.

Conclusion: A Call for Urgent Reform

India's **democratic reputation** and its **position in international law forums** are at risk due to the persistent **neglect of custodial conditions**. As Justice Lokur emphasized, **legal strength** alone is not enough — **humane delivery of justice** is equally vital.

Without immediate reform in **prison management**, **judicial delays**, and **rights protections**, India's **extradition requests will falter**, and its **international legal standing** will face continued erosion.

GS Paper 3 – Agriculture, Economic Development

2 Indian Agriculture to 2047: Pathways to a Sustainable and Resilient Future

Context: The policy paper titled **"Indian Agriculture to 2047"**, released by the **ICAR–National Institute of Agricultural Economics and Policy Research (ICAR-NIAP)**, presents a long-term vision for transforming India's **agri-food system**. This comprehensive analysis reflects on the **six-decade evolution** of Indian agriculture while offering a roadmap to address future challenges and opportunities.

From Food Scarcity to Food Surplus: A Structural Shift

A Green Revolution Legacy:

Over the past 60 years, India has shifted from a **food-insecure nation** to a **food-surplus economy**, thanks to innovations such as the **Green Revolution**, along with **input subsidies** and **minimum support price (MSP)** mechanisms.

Economic Transformation:

- The **contribution of agriculture** to **national income** has reduced from **43% in the 1960s to 18%** today.
- However, the **agricultural workforce** has declined at a much slower pace, from **74% to 46%**, indicating a need for **rural employment diversification**.

Land Fragmentation:

- **Marginal holdings (≤1 hectare)** have grown from **51% to 68%** of total landholdings.
- The **average farm size** has shrunk from **2.28 hectares to 1.08 hectares**, making **economies of scale** harder to achieve.

Diversification of Agriculture:

- The contribution of **animal husbandry** to agricultural **Gross Value Added (GVA)** rose to **31%** in 2022–23.
- **Fisheries** now account for **7%**, reflecting a trend toward **multi-sector agri-based livelihoods**.

Key Challenges to Agri-Food System Transformation:

Despite notable progress, India's agri-food system faces **critical structural and environmental constraints**:

1. **Shrinking Agricultural Land:** Rapid **urbanization**, **industrialization**, and **population growth** are steadily eroding **arable land**, leading to competition between food production and urban infrastructure.
2. **Imbalanced Fertilizer Usage:**
   - Excessive use of **urea** due to **subsidy distortions** has led to **soil nutrient depletion**.
   - Low **nutrient-use efficiency** and **regional disparities** in fertilizer use affect both **yields** and **environmental health**.
3. **Water Stress**
   - **Groundwater over-extraction**, especially in the northwestern states, is unsustainable.
   - **Inefficient irrigation systems** and poor **water governance** have made agriculture highly **vulnerable to water scarcity**.
4. **Climate Change Impacts:**

- **Extreme weather events** such as droughts, floods, and heatwaves have caused a **25% decline in productivity growth**.
- **Rainfed areas**, which constitute over **50% of cultivated land**, are most at risk.

5. **Market and Policy Bottlenecks:**
   - A **cereal-centric policy approach** has skewed production patterns.
   - **Poor market access**, **weak value chains**, and **limited rural credit** remain major barriers for farmers.

Recommendations for a Sustainable Agri-Food System:

To future-proof Indian agriculture by 2047, the report offers a suite of forward-looking reforms:

1. Water Resource Management:

- Promote **rainwater harvesting**, **groundwater recharge**, and **micro-irrigation** (e.g., **drip and sprinkler systems**) for efficient water use.
- Encourage **crop diversification** towards **less water-intensive crops** like **millets** and **pulses**.

2. Energy and Input Reforms:

- **Gradually phase out electricity subsidies** to reduce over-pumping of water.
- Promote **nano fertilizers**, which increase nutrient efficiency and reduce environmental impact.
- Encourage **integrated nutrient and pest management**, **intercropping**, and **crop rotation**.

3. Research and Innovation:

- Increase investments in **agricultural R&D**, particularly in **climate-resilient crops**, **precision farming**, and **digital agriculture**.
- Scale up the use of **AI, drones, and IoT-based solutions** to improve farm productivity and decision-making.

4. Market and Price Policy Reforms:

- Strengthen **agricultural market infrastructure**, including **cold chains**, **warehousing**, and **logistics**.
- Reform **MSP policy** to make it **crop-neutral** and **region-sensitive**.
- Support **Farmer Producer Organizations (FPOs)** to improve **bargaining power and value addition**.

Additional Insights: Global Best Practices for India:

India can draw lessons from:

- **Israel's water management**, where over **80% of wastewater** is treated and reused for agriculture.
- **The Netherlands**, a leader in **agri-tech innovation**, despite having limited land.
- **Brazil's integrated agro-industrial model**, which connects smallholder farmers to global value chains.

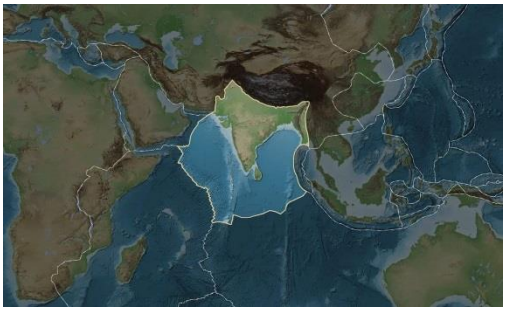
Conclusion: Vision 2047 – Towards Resilience and Prosperity

As India approaches its **centenary of independence**, the transformation of agriculture must move beyond production to focus on **sustainability, inclusivity, and resilience**. The policy roadmap offered by ICAR-NIAP envisions a **farmer-centric, market-oriented**, and **climate-smart** agricultural system.

Empowering smallholders, investing in **technology**, and making **policies more adaptive and responsive** will be critical to ensuring that **Indian agriculture thrives** in the face of 21st-century challenges.

GS Paper 1 – Geography

3 New Research Suggests the Splitting of the Indian Continental Plate



Context: Recent studies have proposed a **groundbreaking theory** suggesting that the **Indian Continental Plate** may be **splitting apart** as it interacts with the **Eurasian Plate**. This new insight challenges previous understanding and provides a fresh perspective on the geological processes shaping the region.

Understanding the Indian Continental Plate:

The **Indian Plate** is a major **tectonic plate** that interacts with four other significant plates:

- **Eurasian Plate**
- **Arabian Plate**
- **African Plate**
- **Australian Plate**

For over **60 million years**, the **Indian Plate** has been moving **northward**, colliding with the **Eurasian Plate**, leading to the formation of the **Himalayas** and the **Tibetan Plateau**.

Traditional Theories on the Emergence of the Himalayas and Tibetan Plateau:

1. **Underplating Theory:** The traditional explanation for the formation of the **Himalayas** suggests that the **denser Indian lower crust** is forced to slide beneath the **less dense Eurasian crust** as the plates converge. This **underplating** process leads to the upward thrust of material, forming mountain ranges.
2. **Subduction Theory:** In the conventional model of plate tectonics, **subduction** occurs when the denser plate slides beneath the less dense one. However, unlike oceanic plates, **continental plates** like the **Indian Plate** are much thicker and **more buoyant**, making **subduction** unlikely in the traditional sense.

A New Theory: Delamination and Splitting of the Indian Plate

- Recent research suggests a **third possibility** — that the **Indian Plate** is undergoing a process known as **delamination**. In this scenario, the **dense lower section of the plate** may be **peeling away** and sinking deeper into the **Earth's mantle**, causing the plate to split apart as it continues its northward motion beneath the Eurasian Plate.

What is Delamination?

- Delamination is a geological process in which a **tectonic plate's lower, denser section** detaches and sinks into the mantle, possibly leading to **tectonic shifts** and changes in the **structure of the plate** itself. This phenomenon could provide new insights into the **dynamics of plate interactions**.

Implications of the New Theory:

- If this theory holds true, it would have significant implications for our understanding of not only the **Himalayan formation** but also the **tectonic processes** at play in the **Indian subcontinent**. It could also help explain the **seismic activity** and **earthquakes** experienced in the region, as the **Indian Plate** continues to evolve and interact with surrounding plates.

Conclusion: A Changing Landscape of Earth's Tectonics

The possibility of the **Indian Plate** splitting apart introduces a new chapter in the study of **plate tectonics**. This evolving understanding promises to deepen our knowledge of the **geological forces** shaping the **Himalayas**, the **Tibetan Plateau**, and the broader **Indian subcontinent**. As further research unfolds, it could reshape how we view **continental drift**, **mountain formation**, and **plate interactions**.

GS Paper 3 – Science and Technology

4 Lichens: A Key to Life on Mars

Context: A recent experiment has demonstrated that **lichens** can survive and thrive in **Martian-like conditions**, marking a **significant step** towards understanding life's potential on Mars. This exciting development opens new doors for **space exploration** and the possibility of life beyond Earth.

What Are Lichens?

Lichens are not just one organism but a **symbiotic partnership** between two distinct life forms: a **fungus** and an **alga**. This unique combination creates a highly adaptable organism that can survive in extreme conditions.

Structure of Lichens:

- The **outer skin** and internal structure of a lichen are primarily made up of **fungal hyphae**, which are thread-like structures.
- Inside the fungal network, individual **algae cells** are interspersed, providing energy through **photosynthesis**.

No Roots, No Problem:

Unlike most plants, lichens do not have **roots** or specialized structures for absorbing nutrients from the soil. Instead, they depend on the **atmosphere** for **air** and **water**, which makes them highly sensitive to environmental conditions. This reliance on the atmosphere means that the **quality of the environment** directly impacts the **diversity** and **health** of lichen species.

Lichens on Earth: A Wide Presence

Lichens are incredibly widespread, covering about **6 to 8% of Earth's surface**. There are over **15,000 known species** of lichens, each adapted to thrive in different environments, from **mountain tops** to **desert landscapes**, and even **polar regions**.

Ecological Importance of Lichens:

- **Bioindicators**: Lichens are highly sensitive to **air quality** and **pollution**, making them effective **bioindicators** of environmental health.
- **Survival in Extreme Conditions**: Some species of lichens are capable of withstanding **harsh climates**, extreme temperatures, and limited water, making them an ideal candidate for studying life in other worlds.

Lichens and the Future of Space Exploration:

Lichens' ability to thrive in **extreme environments** like those simulated on Mars suggests that they may play a crucial role in future **space exploration**. Their **resilience** could help researchers understand how life might survive on other planets, especially in places with limited resources, such as **Mars**.

Conclusion: A Step Toward Life Beyond Earth

The discovery that lichens can thrive in Martian-like conditions brings us closer to understanding how life could exist on **Mars**. As scientists continue to study these fascinating organisms, they may hold the key to unlocking the secrets of **life in space** and the potential for **sustaining life on other planets**.

5 World's First Global Carbon Tax on Shipping Industry

Context: In a landmark decision, **India** and **62 other countries** have voted in favor of the world's **first-ever global carbon tax**, which will be imposed on the **shipping industry** by the **United Nations' International Maritime Organization (IMO)**. This bold initiative marks a significant step toward reducing **greenhouse gas emissions** from one of the world's most carbon-intensive industries.

What is a Carbon Tax?

A **carbon tax** is a penalty imposed on businesses or industries that produce excessive **greenhouse gas (GHG) emissions**. It is designed to incentivize companies to lower their carbon footprint and shift toward **greener practices**.

How the Carbon Tax Works:

- **Levying per ton**: The tax is usually calculated based on the **quantity of GHG emissions** produced, often assessed per ton of **carbon dioxide (CO2)** released.
- **Objective**: The primary goal is to encourage companies to adopt **cleaner technologies**, reduce emissions, and move toward **sustainable practices** that benefit both the environment and the economy.
- **Type of Tax**: A **Pigouvian tax**, aimed at correcting the **negative externality** of carbon emissions.

Types of Carbon Taxes:

There are several models for imposing a carbon tax, each suited to different environmental and economic contexts:

1. **Emissions-Based Tax:** This tax is directly levied on the **amount of GHG emissions** produced by an entity, encouraging businesses to reduce their carbon footprint by improving energy efficiency.
2. **Goods-Based Tax:** Applied to **carbon-intensive goods** such as **gasoline, coal**, and other fossil fuels. The tax is linked to the **estimated emissions** associated with the production, transportation, and consumption of these products.
3. **Cap-and-Trade System:** A **market-based approach** where a government sets a **limit (cap)** on total emissions. Companies are allowed to buy, sell, or trade **emission permits** within that cap, creating an economic incentive for lower emissions.
4. **Carbon Tariff (CBAM):** Also known as the **Carbon Border Adjustment Mechanism (CBAM)**, this tax targets **carbon leakage** by imposing an **eco-tariff** on products imported from countries without a **carbon pricing** system. It ensures that international trade does not undermine domestic climate policies.

The International Maritime Organization (IMO):

The **IMO**, a **specialized agency of the United Nations**, plays a key role in regulating the **global shipping industry** and its environmental impact. The IMO's new carbon tax will apply to ships operating internationally, aiming to reduce their contribution to global emissions.

Role of the IMO in Global Climate Goals:

- The IMO is crucial in supporting **UN Sustainable Development Goal 14**: **Conserve and sustainably use the oceans, seas, and marine resources** for sustainable development.
- The IMO's work will be critical in reducing the **carbon footprint** of the **maritime sector**, which accounts for a significant portion of global emissions.

IMO's Structure:

- **Members**: The IMO has **176 member states** and three associate members: **Hong Kong, Macao**, and the **Faroe Islands**.
- **Headquarters**: Located in **London, UK**, the IMO consists of an **assembly** of member states and a **council**, which appoints the **Secretary-General**.

Important IMO Treaties:

- **International Convention for the Safety of Life at Sea (SOLAS)**: Ensures the safety of life at sea through regulations on ship design, operation, and management.
- **International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW)**: Sets global standards for the training and certification of seafarers.
- **International Convention for the Prevention of Pollution from Ships (MARPOL)**: Aims to reduce pollution from ships, including **oil spills** and **emissions**.

The Global Shipping Industry and Its Environmental Impact:

- The shipping industry is responsible for a substantial share of global carbon emissions. As international trade continues to grow, **shipping accounts for approximately 2-3%** of global **GHG emissions**, making it one of the largest sources of pollution worldwide.

The **carbon tax** imposed by the IMO aims to create a **financial incentive** for the industry to adopt **cleaner fuels**, **energy-efficient technologies**, and **sustainable practices**.

Conclusion: A New Era for Global Climate Action

- The **global carbon tax on shipping** represents a **historic move** towards addressing climate change at a global scale. By targeting one of the most polluting industries, this initiative not only sets a precedent for future environmental taxation but also aligns with global efforts to reduce **greenhouse gas emissions** and limit global warming.

As countries like **India** continue to take **climate leadership**, this policy could serve as a model for tackling emissions in other sectors, contributing to the **global fight against climate change**.

GS Paper 1 – Indian Society

6 Thangjing Hill: Sacred Summit Amidst Strife

Context: Tensions have escalated in **Manipur** as a **Meitei organization** strongly criticized **Kuki civil society groups** for allegedly threatening Meitei pilgrims against undertaking their **annual religious journey** to **Thangjing Hill**. This age-old pilgrimage, steeped in cultural and spiritual reverence, now finds itself entangled in the region's ongoing **ethnic unrest**.

Geographical Setting of Thangjing Hill:

Thangjing Hill is situated in the **buffer zone** that lies between the **Churachandpur** and **Bishnupur** districts of Manipur.

It rests on a **north–south aligned mountain range**—known locally as the **Thangjing Range** or **Thangjing Hills**—which also serves as a **natural boundary** on the **western edge of the Imphal Valley**.

Legal and Environmental Status:

- The hill range is part of the **Churachandpur-Protected Forest**, declared as such in **1966** under **Section 29** of the **Indian Forest Act, 1927**.
- Additionally, **Thangjing Hill** has been recognized as a **protected historical site** under **Section 4** of the **Manipur Ancient and Historical Monuments and Archaeological Sites and Remains Act, 1976**.

Religious and Cultural Importance:

To the Meitei Community:

Thangjing Hill holds deep spiritual significance for the **Meitei people**, as it is home to the revered **Ibudhou Thangjing Temple**.

It is believed to be the **original abode of Lord Thangjing**, a prominent **ancestral deity** in the **Meitei pantheon** and one of the **four guardian deities of Manipur**.

To the Kuki Community:

Kuki communities, who refer to the area as **"Thangting"**, also consider the hill range to be a **culturally important site**. While the hill is not part of their mainstream religious canon, it lies within **territories inhabited by Kuki tribes**, making it symbolically and politically significant.

Current Dispute: Sacred Ground or Political Battleground?

Since the outbreak of **ethnic clashes in 2023**, **claims over access and rights to worship** at Thangjing Hill have become **highly contentious**.

What was once a **shared or overlapping spiritual space** is now a **flashpoint of ethnic assertion**, where the **right to pilgrimage** is being challenged by issues of **territoriality and identity**.

- The Meitei community insists on **uninterrupted access** to the hill for religious purposes.

- Kuki groups, citing **security concerns** and alleged **land claims**, have opposed such movements, deepening the divide.

A Shared Heritage at Risk:

- The current conflict risks eroding centuries of **cultural coexistence**, as both communities stake symbolic and emotional claims over **Thangjing Hill**.
- Experts stress that **dialogue, trust-building**, and **cultural preservation efforts** are crucial to avoid the hill becoming a symbol of division rather than unity.

Conclusion: Can Sacred Spaces Heal Divided Communities

Thangjing Hill, once a serene symbol of **spirituality**, now stands as a poignant reminder of Manipur's **ethnic fragility**. With its **legal, ecological, and religious importance**, the hill demands **inclusive stewardship**—not just by the communities who revere it, but also by **state authorities, historians**, and **peace advocates** working toward reconciliation in the region.