

President released report on 'Prisons in India: Mapping Prison Manuals and Measures for Reformation and Decongestion'

Report, prepared by **Centre for Research & Planning**, the research wing of **Supreme Court of India**, seeks to highlight the complexities of India's prison system, with a focus on the **potential for technology-driven solutions**.

Key insights of the report

- **Stereotyping:** Prison manuals often refer to **essential sanitation and conservancy work** as "menial" or "degrading," perpetuating a hierarchical view of labour.
- **Bail Rejection:** Rejection rate for bail applications is high (32.3% in **Sessions Courts** and 16.2% in Magisterial Courts).
- **Slow Trial:** **Over 52% of cases where accused** were in custody for more than a year were still pending at evidence stage in 2023.
- **Others:** **Persistence of Manual Scavenging** in prisons; **Division of prison work based on caste system** (held unconstitutional in *Sukanya Shantha Case*); **Underutilization of open prisons etc.**

Use of Technology for Prison Reforms

- **E-prisons:** Developed by National Informatics Centre to integrate all activities related to prison and prisoner management.
- **Model Prison and Correctional Services Act, 2023:** Introduced the use of **electronic monitoring technology** as a condition for granting prison leaves for prisoners.
- **FASTER (Fast and Secured Transmission of Electronic Records)** system of Supreme Court resolved delay in communication of bail orders from courts to prison.
- **Interoperable Criminal Justice System (ICJS):** It can create an automatic channel between courts, police and prisons and reduce unjustified delay in custody cases.

The Supreme Court (SC) ruled prior sanction mandatory to prosecute public servants

SC ruled that **prior sanction is mandatory** to prosecute **public servants** in **money laundering cases**, establishing a key **procedural safeguard under the stringent Prevention of Money Laundering Act (PMLA)** and adding a **layer of accountability to PMLA** prosecutions.

Key highlights of the Directorate of Enforcement Vs Bibhu Prasad Acharya case

- **Supremacy of CrPC:** The court asserted that the **PMLA doesn't supersede** the requirement for prior sanction under **Section 197 of CrPC**.
 - ⊕ The provision corresponds to **Section 218 of the Bhartiya Nagrik Suraksha Sanhita, 2023**, which has replaced the CrPC with effect from July 1, 2024
- **Section 197 of CrPC:** To protect the public servants from prosecutions & from being prosecuted for anything they do in the **discharge of their duties**.
- **Exception:** Protection is **not unqualified** & public servants can be **prosecuted with a previous sanction** from the **appropriate government**.

Provision towards protection of Civil Servants

- **Articles 311 (1) and 311 (2):** They provide Constitutional protection to Civil Servants
- **Public Servants (Inquiries) Act, 1850:** Ensures inquiries are conducted fairly and transparently, upholding principles of natural justice within public administration.

About PMLA, 2002

- **About:** Comprehensive law to **prevent money-laundering** and to provide for **confiscation of property** derived from money laundering.
- **Implementation authority:** Enforcement Directorate (ED) and Financial Intelligence Unit – India (FIU-IND).
- According to PMLA, **money laundering** is the process of **making illegally-earned money appear legitimate**. The PMLA defines **money laundering as any activity that involves:**
 - ⊕ Concealing the proceeds of crime; Possessing the proceeds of crime; Acquiring the proceeds of crime, etc.

Ministry of Culture and International Buddhist Confederation Organised First Asian Buddhist Summit 2024, concludes

The summit, themed 'Role of Buddha Dhamma in Strengthening Asia' saw participation from **32 countries** with over **160 international participants**.

Significance of First Asian Buddhist Summit

- Emphasized the **profound interconnection** among **Buddha Dhamma, India, and Asia**, showcasing their **complementary relationship**.
 - ⊕ The summit also adopted '**The Delhi Declaration**' (See box).
- The Summit reaffirmed **the role of Buddha Dhamma** as a guiding framework for **ethical governance, compassionate action, and sustainable development** with mindfulness.
- The Summit aligns with **India's Act East Policy and Neighborhood First Policy**, focusing on **collective, inclusive, and spiritual development in Asia**.

Role of Buddhism in India's Diplomacy

- **Historical Legitimacy:** India's birthplace status of Buddhism provides unique diplomatic leverage in Asia.
 - ⊕ **97% of global Buddhist population resides in Asia**.
- **Religious heritage Sites:** Accommodating Buddhist tourists & promoting cross-border connections to position India as a spiritual destination of Buddhism.
 - ⊕ **E.g., Developing international Buddhist tourist circuits (Bodh Gaya, Sarnath, and Nalanda) with Nepal.**
- **Relic diplomacy:** Buddhism has been a **strong lynchpin** in India's cultural diplomacy **with the ASEAN region**. **E.g.,** Recently, the relics of Lord Buddha were flown to Thailand.
- **Dalai Lama Presence:** Hosting the **Dalai Lama and Tibetan parliament-in-exile in Dharamshala** enhances India's image as **protector of Buddhist traditions**.

Delhi Declaration

- **Build stronger connections** between Asian nations based on Buddha Dhamma principles.
- **Focus on preserving and studying Pali** texts and Buddhist philosophy.
- **Involve youth** more actively in cultivating a value-based society.
- **Explore the relevance of Buddha Dhamma** in modern scientific and medical fields.
- **Emphasize Buddha's teachings** as a unifying force for global peace and understanding.

United Nations Environment Programme (UNEP) released Adaptation Gap Report 2024

Report provides annual assessment on progress in adaptation planning, implementation and finance.

- **Adaptation Gap** is the **difference between actually implemented adaptation** (adjustment measures to actual or expected climate) and a **societally set goal**, reflecting resource limitations and competing priorities.

Key Findings of Report:

- **Adaptation Gap:** Adaptation gap is estimated at **US\$187-359 billion** per year.
- **Adaptation Progress:** International public adaptation finance flows to developing countries **increased to US\$27.5 billion in 2022**.
 - ⊕ This reflects progress towards **Glasgow Climate Pact**, which urged developed nations to **at least double adaptation finance to developing countries** from US\$19 billion (2019) by 2025.
- **Significance of Adaptation:** Global climate risk can be halved through ambitious adaptation.
 - ⊕ For instance, **US\$16 billion invested in agriculture** per year would prevent about **78 million people from climate change related starving or chronic hunger**.

Recommendations for bridging adaptation gap

- Adopt an ambitious **New Collective Quantified Goal** for climate finance at COP29.
- **Strengthening enabling factors, adapting new financial instruments, capacity building and technology transfer** are central.
- Adaptation financing needs to shift from reactive, incremental, project-based financing to more **anticipatory, strategic and transformational adaptation**.

Key Initiatives for Adaptation

Global

- **Paris Agreement:** Global goal on adaptation aimed at enhancing adaptive capacity.
- **UAE Framework for Global Climate Resilience:** Includes 11 global adaptation targets.
- **Adaptation Fund:** To finance adaptation projects in developing country Parties to the Kyoto Protocol.

India

- **National Action Plan on Climate Change (NAPCC):** Includes eight national missions on climate change.
- **National Adaptation Fund for Climate Change (NAFCC):** to finance and scale up adaptation action in vulnerable states.
- **Sectoral schemes** like MISHTI & Amrit Dharohar.

UNESCO released 'Global Education Monitoring Report 2024'

Report was released at the Global Education Meeting, organized by United Nations Educational, Scientific and Cultural Organization (UNESCO) and hosted at Fortaleza by the Government of Brazil (Current G20 President).

Key Observations of the Report

- **Leaders as agents of change:** In education, leadership is a process of social influence aimed at maximizing joint efforts towards a common goal. **Function of an education leader:**
 - ⊕ Define their purpose and plan how they will influence change.
 - ⊕ Balance targeted learning outcomes with equity, quality, and inclusive education goals.
- **Lack of funding:** 4 in 10 countries spend less than 4% of GDP on education.
- **Out of School children:** 251 million children and youth globally and there has been a reduction of just 1% since 2015.
- **Access to education:** Central and Southern Asia has continued making rapid progress in access to education.
 - ⊕ However, **Afghanistan, Bangladesh, India and Pakistan** have the largest out-of-school populations in the world

Key Recommendations

- **Leadership development:** Principals should be given the freedom to manage their schools effectively.
- **System leader:** Develop education officials' capacity to serve as system leaders
- **Climate change education** needs to be taught more in the earlier grades and across more subjects than just science.

India's Initiatives to leadership at School

- **National Education Policy 2020:** Requires school principals to engage in workshops to enhance their leadership and management competencies.
- **National Initiative for School Heads' and Teachers' Holistic Advancement (NISHTHA):** Providing training on learning outcomes, school-based assessment and learner-centred pedagogy.

Study highlights detrimental effect of rainforest conversion to rubber plantation on Soil-Dissolved Organic Carbon (DOC)

According to the study, conversion of erstwhile rainforests into rubber plantations is detrimental to global carbon cycling and climate change.

- It removes 50% of sequestered carbon from the soil and add it into the atmosphere as greenhouse gases.
 - ⊕ Loss of carbon from soil is concerning as **soil globally stores 1,500 Pg (Petagram) of organic carbon**, well above the stock in atmosphere and vegetation combined.
- It significantly increased soil DOC (accounts for 1% of Soil Organic Carbon) levels by 150–200%.
 - ⊕ Soil DOC, being one of the most mobile organic matter in terrestrial ecosystem, plays **vital role in soil formation processes and global carbon cycling**.

Other Environmental Impacts of Rubber Plantation

- **Biodiversity Loss:** Shift to rubber monoculture leads to loss of biodiversity and weaker land resilience.
 - ⊕ In Thailand, at least 60% biodiversity reduction found in rubber plantations.
- **Deforestation:** More than 4 million hectares of tropical forests have been lost to rubber plantations in south-east Asia over last three decades.
- **Water Scarcity:** Require more water thus increasing evapotranspiration, reducing surface water run-off and water yield.
- **Pollution:** Water and soil pollution due to rubber processing wastage.

About Natural Rubber (Hevea brasiliensis)

- **Native of Amazon River basin** and introduced to tropical Asia and Africa by colonial British Government.
- **Favorable Conditions:** Grows in wide range of agro climates and soil conditions with annual rainfall of about 200 cm.
- **Distribution of Rubber Production:** South-east Asia accounts for 90% of the global rubber production with Thailand being the largest producer.
 - ⊕ India is the **third largest producer of natural rubber** with Kerala being largest producer state.

Also in News



One rank one pension Scheme (OROP)

OROP Scheme completes 10 years

About OROP

- It is based on the idea that **military personnel retiring with the same rank and length of service** should receive the **same pension, no matter when they retire**.
- **Features:** Pension to be **re-fixed every 5 years**; Pension of all **past pensioners** is re-fixed based on the pensions of personnel who retired in 2013, etc.
- **Significance:**
 - ⊕ Benefits over 25 lakh Armed Forces pensioners.
 - ⊕ Addresses pension disparities caused by inflation, pay scale changes, etc.
 - ⊕ Ensure greater dignity for their service to the nation.



WHO Priority endemic pathogens list

A new **World Health Organisation (WHO)** study listed 17 pathogens as top priorities for new vaccine development.

- It's the **first global effort to prioritise endemic pathogens** based on regional disease burden, antimicrobial resistance risk, etc

Key observations

- The study reconfirms longstanding priorities for vaccine research on longstanding diseases like **HIV, malaria, and tuberculosis**.
 - ⊕ It also focuses on emerging resistant pathogens like **Group A streptococcus and Klebsiella pneumoniae**.
- The study asserts research and development (R&D) on HIV, malaria, and tuberculosis.
 - ⊕ Three diseases that collectively kill nearly 2.5 million people each year.



Cyanobacteria

Scientists have discovered a **novel strain of cyanobacteria - Chonkus**, that can be a prime candidate for **biologically-based carbon sequestration projects and bioproduction of valuable commodities**.

About Cyanobacteria

- Also known as **blue-green bacteria, blue-green algae**, they are photosynthetic microscopic organisms.
- They can be found in almost every **terrestrial and aquatic habitat**.
- Cyanobacteria get their colour from the **bluish pigment phycocyanin**, which they use to capture light for photosynthesis.
- **Significance:** Responsible for oxygenation of atmosphere and oceans, aids aquatic food chain, nitrogen fixation enriching soil and water.



Amazon Rainforest

Deforestation in Brazil's Amazon rainforests drops by nearly 31% compared to previous year.

- Deforestation in **Brazil's vast savannah**, known as the **Cerrado**, decreased by 25.7%, the **first decline in five years**.

About Amazon Rainforest

- **Location:** In South America, occupying much of **Brazil and Peru**, and also parts of **Guyana, Colombia, Ecuador, Bolivia, Suriname, French Guiana, and Venezuela**.
- **World's largest tropical rainforest** is home to **10% of the world's known species**.
- It occupies drainage basin of the Amazon River and holds **20% of world's liquid freshwater**.



Photosynthesis

Recently, Scientists have successfully **engineered animal cells capable of photosynthesis**.

- This can help create cells that **consume less oxygen and emit less carbon dioxide** – essentially turning them into **mini oxygen producers**.

About Photosynthesis

- Photosynthesis is a process that **uses sunlight, water, and carbon dioxide to produce oxygen and energy in form of sugars**.
- It is carried out by **plants, algae, and certain bacteria**.
- During photosynthesis, plants **take in CO2 and water from the air and soil and transforms water into oxygen and CO2 into glucose**.
 - ⊕ Process relies on a pigment called **chlorophyll**, which gives plants their green colour.



Nutraceutical Industry

The Office of Principal Scientific Advisor states that India's **Nutraceutical Industry is poised for growth**.

- Nutraceuticals are products with biological functions that are derived only from foods. E.g., omega-3 fatty acids, probiotics,

Nutraceutical Industry:

- Currently, 90% of the total global nutraceutical market is captured by the USA, Japan and Europe.
- India's share around 2% global trade.

Initiatives: Development of the first-ever Harmonized System of Nomenclature codes for streamlined trade; PLI Scheme for nutraceuticals.



PyPIM Platform

Israel have developed PyPIM that enables computers to process data directly in memory, bypassing the need for the central processing unit (CPU)

About PyPIM

- It is a platform that combines the **Python programming language** with digital **processing-in-memory (PIM) technology**.
- **Significance: Processing data in memory reduces CPU reliance**, addressing the "memory wall" issue (where processor's speed exceeds the rate at which data can be transferred to and from memory) to improve **speed and efficiency**.



Sea buckthorn

Women in Ladakh play a key role in **sea buckthorn cultivation**

About sea buckthorn

- It was given **GI Tag in 2023**
- In Ladakh, it is **grown completely organically** without any pesticides. The berries are **harvested in September-October every year**.
- **'Every part of the plant**, including fruit, leaf, twig, root and thorn, **has been traditionally used** as medicine, nutritional supplement, etc.
 - ⊕ Therefore, It is popularly known as **'Wonder Plant, Ladakh Gold, Golden Bush or Gold Mine of cold deserts'**.

Places in News



Zambia (Capital: Lusaka)

Recently, India-Zambia hold 6th Session of Joint Permanent Commission, highlighting commemoration of 60 years of establishment of diplomatic relations between two countries.

Political Features

- It is **landlocked country in Southern Africa**.
- **Bordering Countries:** Angola (West); Namibia, Botswana, and Zimbabwe (South); Mozambique, Malawi and Tanzania (East); Democratic Republic of Congo (North).

Geographical Features:

- **Major Rivers:** **Zambezi River** (forms its border with Namibia, Botswana and Zimbabwe) which drains into the Indian Ocean; and Kafue river.
- **Lake Tanganyika** shared with Burundi, DR Congo, and Tanzania.
- **Major Fall:** Victoria Falls on Zambezi River

