

Today's Prelims Topics

52nd CJ of India

Context

Chief Justice of India (CJI) Sanjiv Khanna has recommended the name of Justice B.R. Gavai to the government for appointment as the 52nd Chief Justice of India.

About the Appointment Procedure of CJ

- Under **Article 124 (2)** CJ is appointed by the President of India.
- The Union Law Ministry seeks the recommendation of the outgoing CJ for the appointment of the next Chief Justice of India.
- After receipt of the recommendation from the outgoing CJ, the Union Law Ministry forwards recommendation to the Prime Minister.
- He then advises the President on the matter of appointment.
- Generally the outgoing CJ recommends the name of the most senior judge of the Supreme Court as the next Chief Justice.

Facts

- The convention to appoint the Senior most judge as CJ has been broken **3 times** till date.
- The Constitution **does not provide a minimum age of qualification for SC judges.**
- **Qualifications for SC Judge:**
 - Citizen of India .
 - At least 5 years of experience as a judge of a High Court or two or more High Courts in succession.
 - Advocate of a High Court or two or more High Courts in succession for at least ten years.
 - Distinguished jurist in the opinion of the President.

Source:

- [The Hindu - CJ](#)

Tensor Processing Unit

Context

Google has recently launched **Ironwood**, its **seventh-generation Tensor Processing Unit (TPU)**.

About TPU

- TPUs are **application-specific integrated circuits (ASICs)** designed **exclusively for accelerating machine learning (ML) tasks**, like deep learning.
- They are built specifically to handle operations involving **tensors** (multi-dimensional arrays used in ML models).

Key Features of TPUs

- **Designed for Machine Learning:** Optimized for **tensor operations**, which are the foundation of neural networks.
- **High Performance:** TPUs offer significantly **faster computation** compared to CPUs and GPUs for ML tasks.
 - **Training that takes weeks** on GPUs can be completed in **hours** using TPUs.
- **Parallelism:** Like GPUs, TPUs also use **parallel processing** but are even more specialized. They can handle **millions of tensor operations** simultaneously.
- **Energy Efficiency:** More **energy-efficient** than GPUs and CPUs when running AI workloads.

Key Differences Between CPU, GPU and TPU

Feature	Central Processing Unit	Graphic Processing Unit	Tensor Processing Unit
Purpose	General Computing	Graphics & parallel computing	AI & ML-specific tasks
Processing Type	Sequential	Parallel	Tensor-based, parallel
Efficiency in AI	Low	High	Very High

Source:

- [Indian Express - TPU](#)

News in Shorts

Type-5 Diabetes

- The International Diabetes Federation (IDF) has recognised Type 5 diabetes as a form driven by malnutrition rather than excess sugar.

What is Type-5 Diabetes ?

- It is a **malnutrition-related diabetes**, generally affecting lean and malnourished teenagers and young adults in low- and middle-income countries.
- It starts from the **womb** itself, **leading to poor development** of the pancreas.
- **Effect on Pancreas:** The **pancreatic beta cells** produce **very little insulin** — not due to autoimmunity (as in Type 1) or insulin resistance (as in Type 2), but because the pancreas **never developed fully** due to chronic undernutrition.
- It was first identified in **Jamaica (1955)** as **J-type diabetes**.

Source:

- [Indian Express - Type-5 Diabetes](#)

Silkyara Tunnel

- **Location:** On Yamunotri National Highway in Uttarakhand's Uttarkashi district.
- The tunnel is a part of the **Char-Dham all-weather road project**.
- It is a **4.5 km** double-lane tunnel. (Largest Tunnel in Uttarakhand).
- Upon completion it will reduce the distance between **Gangotri and Yamunotri by 31.5 km**.
- In **2023**, a section of the tunnel collapsed, **41 workers were trapped inside for 17 days..**

Source:

- [Indian Express - Silkyara](#)

Kailash Mansarovar Yatra

- India and China are speeding up efforts to restart the Kailash Mansarovar pilgrimage.
- It is suspended from **2019** due to COVID-19 pandemic (2020–2022) & India-China tensions after Galwan clashes (2020).

About Kailash Mansarovar

- It is a sacred pilgrimage site in the Western Himalayan ranges of the Tibetan Autonomous Region.
- It includes **Mount Kailash (highest peak in Kailash Ranges)** and **Lake Mansarovar (world's highest freshwater lake)**.
- It is considered a holy mountain by **Hindus, Buddhists, Jains and Bonpos**.
- The Yatra is accessible through 2 different routes:
 - **Lipulekh Pass** (Uttarakhand)
 - **Nathu La Pass** (Sikkim).



Source:

- [The Hindu - KMY](#)

DUSTLIK – VI

- It is an annual joint military exercise between **India and Uzbekistan**, held alternately in each country.
- Its 6th edition will be held in **Aundh, Pune from 16 April**.
- This edition will focus on Joint Multi-Domain Sub-Conventional Operations in a semi-urban scenario.

Source:

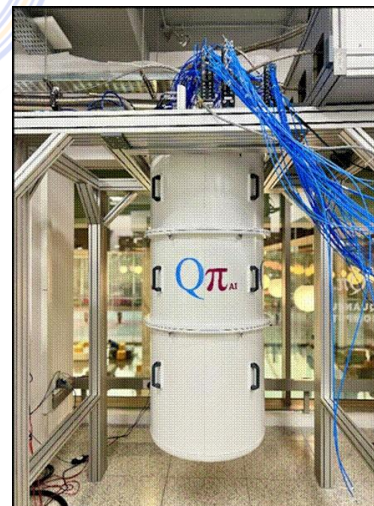
- [PIB - DUSTLIK-VI](#)

India's First Full-Stack Quantum Computer

- Recently a Bengaluru-based startup QpiAI has launched a full-stack quantum computer with 25 qubits.

About QpiAI-Indus

- It is **India's first full-stack quantum system**, integrating quantum hardware, software and AI-enhanced hybrid computing.
- **Technical Specifications:**
 - **Qubit Count:** 25 superconducting qubits.
 - **Architecture:** Full-stack quantum system integrating:
 - Advanced quantum hardware
 - Scalable control systems
 - Optimized software stack
 - It supports **hybrid computing** (quantum + classical).
 - It uses **Superconducting quantum processor**.



Source:

- [PIB - Supercomputer](#)

Countercyclical Capital Buffer (CCyB)

- CCyB is a regulatory tool that mandates banks to **build up capital buffers in good times** so that they can **absorb losses and maintain credit flow** during economic downturns.
- **Purpose:**
 - Maintain credit flow to the real sector during stress.

- Curb **indiscriminate lending** during times of excess credit growth.
- Enhance the resilience of the banking sector.
- **Main Indicator: Credit-to-GDP gap** is the **primary metric**, used along with supplementary indicators.
- It was introduced by the RBI in **2015 under Basel III**, but never used so far.

Source:

- [Deccan Herald - CCyB](#)

Thangjing Hills

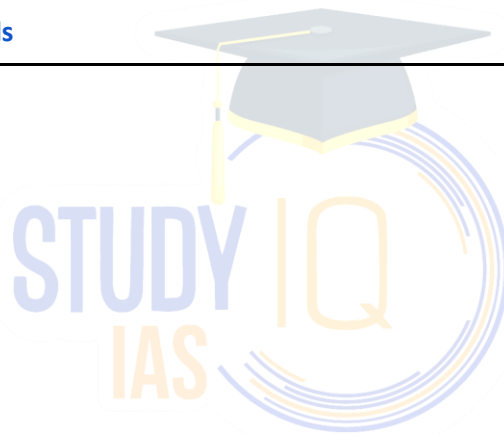
- Recently Meitei pilgrims were forced to abandon their annual pilgrimage to Thangjing Hills in Manipur due to opposition from the Kuki-Zo community.

About Thangjing Hills

- **Location:** Churachandpur district of Manipur, to the west of Moirang town.
- The hill is considered a sacred site by the Manipuri people, especially by the people of **Moirang region**.
- The **Meitei** community undertakes a pilgrimage every year to the summit of the hill in devotion to the deity.

Source:

- [TOI - Thangjing Hills](#)



Editorial Summary

Internal Displacement of tribal people

Context

In 2005, around 50,000 Gond tribals were forced to migrate from Chhattisgarh to then-undivided Andhra Pradesh (now parts of Telangana).

Why were they Displaced?

- **Strategic Hamletting to Counter Maoists (2005):** The Government of India launched a “**Strategic Hamlet**” programme (inspired by the Vietnam War model) in **Chhattisgarh** to eliminate Maoist presence.
 - **Tribals were forcibly relocated** from their forest homes to roadside camps for security and surveillance.
 - This led to **mass displacement**.
- **Fear of Maoists:** Some tribals did **not return home out of fear of Maoist retaliation**.
 - Maoists often **threatened or targeted tribals** who were seen as supporting or collaborating with government forces.
- **Continued Violence in Bastar Region:** Even after the initial hamletting, **violence between Maoists and security forces persisted**.
 - The **ongoing armed conflict** in the Bastar region led to **continued displacement**, especially in the border areas.
- **Neglect and Denial of Rehabilitation:** The **Chhattisgarh government denied displacement**, claiming no tribals had migrated due to violence.
 - There was **no proper survey or recognition** of the internally displaced people (IDPs), delaying rehabilitation or resettlement.

Strategic Hamlet Strategy in Other Parts of India

The **Strategic Hamlet strategy**, which involves relocating rural populations to control insurgency and isolate militants, has been used in other regions of India, though with varied outcomes:

Telangana (Late 1940s – Early 1950s)

- Used to counter **communist rebellion** (Telangana Armed Struggle) after Hyderabad's integration.
- Tribals were shifted to roadside camps.
- Hundreds of tribals were recruited as “**Special Police Constables**”, like the **Koya "Tiger Squad"**.
- Armed with spears and axes, they assisted in fighting communist groups (dalams).

Mizoram (1960s – 1980s)

- Successfully implemented to counter **Mizo National Front (MNF) insurgency**.
- Thousands of villagers were **forcibly relocated to "Protected Villages"** (strategic hamlets).
- Helped **cut off insurgents' support base**.
- Eventually led to a peace accord in **1986**, ending the insurgency.

What are the Challenges they are facing?

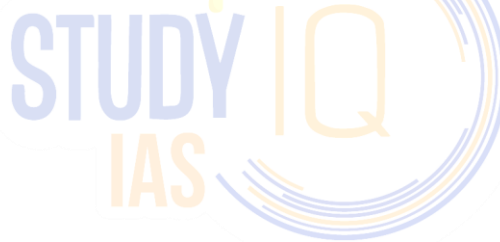
- **Lack of Legal Protection:** India lacks a **comprehensive national or international legal framework** to protect the rights of **Internally Displaced Persons (IDPs)**.
 - **No birth certificates** and hence **no Aadhaar**, making children **ineligible for government welfare schemes** and admission to **Eklavya Model Residential School (EMRS)** and **Kasturba Gandhi Balika Vidyalaya (KGBV)** schools.
- **Hostile Treatment in New Settlements:** In Andhra Pradesh and Telangana, they are seen as “**encroachers**” or migrants.

- Their **houses are demolished**, and they are **denied tribal status**, even though many were born there after 20 years.
- **Poor Access to Health Facilities:** Settlements in **remote, hilly terrain** lack roads and ambulance access.
 - High prevalence of **home births (non-institutional delivery)**.
 - Risk to **maternal and child health** due to absence of medical aid.
- **Lack of Employment:** Geographic isolation and lack of documents like Aadhaar or caste certificates hinder access to job opportunities and government schemes such as MGNREGA.

What Can Be Done?

- **Mobile Documentation Drives:: Integrated Tribal Development Agencies (ITDAs)** deploy **mobile Aadhaar centres** to reduce the burden of long travel for displaced tribal families.
 - **Women and Child Development officials** and **ASHA workers** be actively involved in helping families obtain **birth certificates**.
- **Skill Training Programs:** Launch tribal-centric livelihood and skill development initiatives under schemes like **DDU-GKY** (Deen Dayal Upadhyaya Grameen Kaushalya Yojana).
- **Access to Healthcare:** Set up **Mobile Health Units (MHUs)** with antenatal, postnatal, and child care services.
 - Incentivize **institutional deliveries** with maternity benefits and ambulance connectivity.
 - Train local **tribal women as health workers** to bridge cultural gaps and improve trust.
- **Cultural & Social Integration:** Involve tribes in **local governance (PESA Act)** and **forest conservation (FRA Act)**.
 - Address **discrimination and exclusion** through awareness and sensitization drives.

Source: [The Hindu: Call for permanent settlement for tribals](#)



India: A global talent hub

Context

By 2040, high-income nations may face a 160 million worker shortage. India, with its youthful workforce, can become a global talent hub, creating jobs and enhancing global influence.

Global Labour Shortage and Opportunities For India

- **Labour Shortages in Advanced Economies:** Developed countries face increasing worker shortages in sectors like healthcare, engineering, education, and industry.
- **India's Youthful Workforce:** India has a large, young population capable of meeting global labour demands—but only 1.3% migrate abroad, far less than countries like Mexico (8.6%) or the Philippines (5.1%).
- **Economic Gains Through Remittances:** Indian migrants send home \$125 billion annually, contributing 3% to the GDP—more than any single export sector.
- **Poverty Reduction via Migration:** A global study shows that a 10% rise in remittances can lead to a 3.5% drop in poverty in low-income countries.

Seven Steps to Build India's Global Workforce Footprint

- **Strengthen Migration Governance:** Enhance the Ministry of External Affairs' migration arm to identify target markets, sign migration agreements, and match skills with global demand. States should aid in ethical recruitment and worker protection. Indian embassies abroad must set up dedicated migration help desks. India can draw inspiration from the Philippines' multi-level migration support system.
- **Align Education with Global Job Markets:** Incorporate foreign languages and international skills into the Indian education system. Facilitate joint certifications and mutual recognition of qualifications with key destination countries.
- **Reduce Migration Costs:** With current costs ranging from ₹1–2 lakh (GCC) to ₹5–10 lakh (Europe), India should implement the Philippines-style ESA-pay model, where licensed recruiters or employers bear major pre-departure expenses.
- **Expand Bilateral Agreements:** Proactively secure G2G migration deals to remove visa hurdles, ensure Indian qualifications are recognized, and ease the socio-cultural integration of Indian workers abroad.
- **Establish a National Mobility Body:** Create an industry-wide institution to standardize overseas recruitment, ensure ethical practices, align training with global standards, and enhance coordination between public and private stakeholders.
- **Ensure Migrant Welfare Abroad:** Uphold fair wages, timely payments, adequate housing, health access, legal assistance, and protection from exploitation, in line with ILO standards.
- **Facilitate Returnee Integration:** Tap into the skills and global exposure of returning migrants by offering reintegration support and opportunities to contribute to domestic development.

Source: [Indian Express: India can use the legal migration route to leverage its demographic dividend](#)

Case Study

Karad, Maharashtra Sanitary Waste Management

Context

Sanitary waste disposal remains a neglected aspect of solid waste management in India, leading to severe environmental degradation, health hazards, and social stigma. Karad, a small city in Maharashtra's Satara district, offers a replicable model by achieving **100% segregation, collection, and processing** of sanitary and biomedical waste.

Key Features of the Karad Model

- **Daily Waste Collection:** 300–350 kg of sanitary waste collected daily from households, clinics, and hospitals.
 - Garbage collection vehicles equipped with **separate bins** for sanitary waste.
- **Community Engagement & Awareness:** Targeted **IEC campaigns**, workshops, and public outreach to destigmatize sanitary waste.
 - Formation of **women's groups** to promote safe disposal practices.
 - **Red bins** placed in public toilets to ensure proper disposal by women.
- **School Initiatives:** Promotion of **sanitary pad vending machines and incinerators**.
 - Encouragement of hygienic disposal habits among adolescent girls.
- **Infrastructure & Disposal Mechanism:** Waste sent to a **Common Biomedical Waste Treatment Facility (CBWTF)** established via **Public-Private Partnership (PPP)** with the Karad Hospital Association.
 - Incineration at **1200°C** ensures complete disinfection and minimizes contamination.
 - Real-time emission monitoring linked to **State Pollution Control Board (SPCB)** systems.

Innovative Approaches

- **PPP Model:** Reduced operational costs for the Municipal Council; private partner handles treatment.
- **Women-Centric Approach:** Empowered women as change agents in waste awareness and management.
- **High-Tech Monitoring:** Continuous emissions monitoring ensured adherence to environmental standards.

Impact

- **Public Health Benefits:** Reduced risk of disease transmission and safer working conditions for sanitation workers.
- **Environmental Gains:** Prevention of open dumping and groundwater contamination.
- **Social Upliftment:** Breaking taboos, improving menstrual hygiene awareness, especially among women and adolescents.
- **Scalable & Replicable:** Offers a viable template for other small and mid-sized urban areas.

Takeaways for Governance and Policy

- **Integrated approach** combining awareness, infrastructure, and institutional collaboration can effectively tackle sensitive waste issues.
- **PPP models** are viable for specialized waste treatment services.
- **Community participation** and gender-sensitive strategies enhance the success and sustainability of urban sanitation programs.

Source: **PIB: Karad, Maharashtra has set a benchmark in sanitary waste management by ensuring the safe disposal of sanitary waste**