

# CURRENT AFFAIRS

WEEKLY



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- CHINA'S POPULATION DECLINE

### GS-II

- DONALD TRUMP'S BIRTHRIGHT CITIZENSHIP ORDER
- US WITHDRAWAL FROM WORLD HEALTH ORGANIZATION (WHO)
- US TO CLAMP DOWN ILLEGAL IMMIGRATION
- U.S.'S NEW RULE FOR EXPORTING AI CHIPS
- IMPACT OF US SANCTIONS ON RUSSIA'S OIL TRADE AND INDIA'S OIL IMPORTS
- INDIA'S ENGAGEMENT WITH TALIBAN-LED AFGHANISTAN
- MULLAPERIYAR DAM SAFETY
- LIFE IMPRISONMENT IN RG KAR RAPE-MURDER CASE
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- CERVICAL CANCER AWARENESS AND THE HPV VACCINE

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- India and France Maritime Cooperation in IOR

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- Eighth Pay Commission
- SVAMITVA Scheme
- National Broadband Mission (NBM) 2.0
- Beti Bachao Beti Padhao (BBBP)
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- Study Recommends 179 Communities for SC, ST, OBC Inclusion
- Survey on Edible Oil

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- Changing Understanding of Anaemia
- DRDO conducts Scramjet Engine Ground Test
- Discovery of a Supermassive Black Hole Defying Expectations

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- Flamingo Festival 2025
- US withdraws from Paris Climate Agreement

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## DISCLAIMER

**T**he current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

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# PRELIMS PYQ<sup>+</sup>

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## SECTION -A

## MAINS ISSUES

## CHINA'S POPULATION DECLINE

## Context

China's population dropped by 1.39 million in 2024, reaching 1.408 billion. This marks the third consecutive year of population decline. The main cause is that more people are dying than being born.

## Historical Context:

- China's population has been slowly declining since the 1980s.
- However, the year 2022 was significant because it was the first time since 1961 (during the Great Leap Forward famine) that deaths outpaced births.
- Regional Demographic Crisis:** China's neighbors, including **Japan, South Korea, and Taiwan**, are also facing similar issues of population decline due to low birth rates and restrictions on immigration.

## Why is the population declining?

- Rising costs of living** are causing young people to put off or rule out marriage and child birth while pursuing higher education and careers.
- While people are living longer, that's not enough to keep up with rate of new births.
- While spending on the military and flashy infrastructure projects continues to rise, China's already **frail social security system is teetering**, with increasing numbers of Chinese refusing to pay into the **underfunded pension system**.
- In China, unmarried women **do not have access to fertility treatments** like IVF, which is a policy issue affecting the overall birthrate.

## Beijing's Efforts to Address the Issue:

China has tried various methods to reverse this trend:

- Incentives:** Offering financial support for raising children, such as subsidies for childcare.
- Social Pressure:** Labeling unmarried women as "leftovers" and restricting divorce and abortion to encourage larger families.
- End of One-Child Policy:** In 2016, China ended its **one-child policy** and allowed families to have up to three children (since 2021). The one-child policy caused a preference for male children, leading to a **lopsided population**. There are now fewer women in the population, further complicating the situation.
- Raising Retirement Age:** To manage the aging population, China has started increasing the retirement age from 60 to 63 for men and from 55 to 58 for women in managerial and technical roles.

Despite these efforts, the birthrate continues to fall due to economic factors like high living costs, youth unemployment, and a slowdown in the economy.

## Impact of the Economy:

- Economic Challenges:** China's economy grew by 5% in 2024 but is expected to slow down in the future. The high cost of living, especially in urban areas, makes it difficult for young couples to afford children.
- Aging Population:** A shrinking working-age population is straining an underfunded pension system, and an aging society is leaning on a creaking health care system.

## Cultural and Social Issues:

- Gender Imbalance:** The one-child policy caused a preference for male children, leading to a lopsided

population. There are now fewer women in the population, further complicating the situation.

- ▶ **Youth Unemployment:** Many young people in China are unemployed, contributing to the reluctance to have children.

## DONALD TRUMP'S BIRTHRIGHT CITIZENSHIP ORDER

### Context

President Donald Trump signed an executive order aimed at **revoking birthright citizenship in the United States**. This policy would change the longstanding practice where any child born on U.S. soil automatically receives U.S. citizenship, regardless of their parents' immigration status.

### What is Birthright Citizenship?

- Birthright citizenship refers to the legal principle that any child born in the U.S. automatically becomes a U.S. citizen, as outlined in the **14th Amendment to the U.S. Constitution**, ratified in 1868.
- This policy has been a cornerstone of U.S. immigration law for over 150 years.
- The US is among about 30 countries where birthright citizenship -- the principle of *jus soli* or "right of the soil" -- is applied.

### Trump's Executive Order:

- Trump's executive order seeks to deny U.S. citizenship to children born in the U.S. **if their parents are not U.S. citizens or lawful permanent residents**. The new rule would apply to:
  - ▶ Children born to people holding temporary visas (like H-1B work visas, student visas, etc.)
  - ▶ Children born to undocumented immigrants
  - ▶ Children of lawful permanent residents (Green Card holders)
- **Impact on Indian Community:** The Indian-American community, one of the fastest-growing immigrant groups in the U.S., would be significantly impacted.

People who are legally in the country, such as **tourists, students, and those on temporary work visas (like H-1B)** will be affected.

If this policy goes through, children born to these individuals in the U.S. would no longer automatically be U.S. citizens. This change could:

- Create uncertainty for U.S.-born children of Indian families regarding their future status.
- Discourage Indian professionals, students, and families from choosing the U.S. as a destination for work or study, as they may prefer immigration-friendly countries like Canada or Australia instead.
- Potentially affect U.S. industries, especially technology, healthcare, and education, which rely heavily on Indian professionals.



### FACT BOX

#### Indian-American Population

- As of 2024, the US had a population of over 5.4 million Indian Americans, accounting for 1.47% of the nation's population.
- Approximately two-thirds are immigrants, while 34% are US-born.

#### Impact and Contributions of Indian Americans in the United States

##### □ Economic Contributions:

- ▶ **Unicorn Startups:** Indian migrants lead 72 of the 648 unicorn startups in the U.S., with a combined value of over USD 195 billion. These startups employ around 55,000 people, accounting for 13% of the total unicorn workforce.
- ▶ **Hotel Ownership:** Indian Americans own 60% of all U.S. hotels, generating around USD 700 billion in revenue and creating over 4 million jobs annually.
- ▶ **Convenience Stores:** Between 35%-50% of all U.S. convenience stores are owned by Indian Americans, generating between USD 350 billion and USD 490 billion annually in revenue.

##### □ Intellectual and Academic Influence:

- ▶ Indian Americans contribute significantly to academia, with 13% of all journal publications in 2023 co-authored by Indian-origin scientists in the U.S., up from 11% in 2015.
- ▶ **Educational Leadership:** Indian Americans hold leadership roles in 35 of the top 50 U.S. colleges, including positions like deans, chancellors, and directors.
- **Philanthropy:** Indian Americans have donated USD 3 billion to U.S. universities since 2008. The community contributes between USD 1.5 billion and USD 2 billion annually to various charitable causes, reinforcing their commitment to social causes.

### UPSC PYQ

**Q:** The Indian diaspora has scaled new heights in the West. Describe its economic and political benefits for India. (2023)

**Q:** "Indian diaspora has a decisive role to play in the politics and economy of America and European Countries". Comment with examples. (2020)

# US WITHDRAWAL FROM WORLD HEALTH ORGANIZATION (WHO)

## Context

U.S. President Donald Trump signed an **executive order** to withdraw from the **World Health Organization (WHO)**.

## Details of the Executive Order:

- The order included four key actions:
  - ▶ **Pause on funding:** All U.S. financial contributions to WHO were stopped. The U.S. contributes around **20%** of WHO's total budget. The U.S. is the **largest single financial contributor**, both through **mandatory** and **voluntary** contributions.
  - ▶ **Recall of U.S. personnel:** All U.S. government workers linked to WHO were recalled.
  - ▶ **Identify new partners:** The U.S. would find **new international partners** to take over roles previously carried out by WHO.
  - ▶ **Stop negotiations on the pandemic treaty:** The U.S. would stop participating in negotiations about a global **pandemic treaty** that WHO was working on to help countries prepare for future health crises.
- **Trump listed several reasons for this decision:**
  - ▶ WHO mishandled the **COVID-19 pandemic**.
  - ▶ WHO failed to implement **urgent reforms**.
  - ▶ WHO showed **political bias** and was influenced by member states.
  - ▶ The U.S. was asked for **unfairly large financial contributions**.

## Impact on India:

- **Health Programs in India:** WHO plays a role in several health programs in India, like fighting diseases such as **malaria, tuberculosis, HIV**, and providing support for the **immunization program**.
- **Funding Cuts:** The loss of U.S. funding means WHO may not be able to **fund or implement** these programs effectively in India and other countries.
- **Expertise Loss:** U.S. health experts have contributed significantly to WHO's research and **guidelines** for handling health crises. Their absence will affect how WHO can guide countries during health emergencies.

## The Role of India and the Global South:

- With the U.S. pulling out, countries like **India** and **China** from the **Global South** could play a more significant role in filling the gap left by the U.S.
- **India** has become a prominent voice in the **Global South** on health and other international issues, and experts expect India to step up and **lead** global health efforts along with other nations like **South Africa**.

## About World Health Organization (WHO)

- The **World Health Organization (WHO)** is the **global health body** of the United Nations (UN), founded in **1948** in the aftermath of World War II. Its primary mission is to **promote global health, protect against infectious diseases**, and serve **vulnerable populations**
- **Key Functions of WHO:**
  - ▶ **Global Health Promotion:** WHO works on improving health systems, strengthening primary health care, and increasing access to essential health services for people worldwide.
  - ▶ **Disease Control:** It helps combat both infectious and non-infectious diseases through global health programs.
  - ▶ **Universal Health Coverage (UHC):** WHO aims to **expand healthcare access to a billion more people** and ensure **better protection against health emergencies** for another billion.
  - ▶ **Essential Medicines and Medical Devices:** WHO maintains a **list of essential medicines** that hospitals should stock. It also has a similar list for **diagnostic tests** and **priority medical devices**, such as **ventilators, X-ray, and ultrasound machines**.
- **Funding:** The WHO is funded in part by mandatory fees from member states, alongside voluntary contributions and an investment round.
- **Withdrawal:** The **WHO constitution** does not allow for a simple withdrawal. However, when the U.S. joined WHO in 1948, it had a special condition that allowed it to withdraw by giving a **one-year notice** and settling **financial obligations** for that year.
- **Major Successes of WHO:**
  - **Child Vaccination:** WHO's vaccination programs have been pivotal in eradicating smallpox in 1979 and reducing polio by 99% in recent decades.
  - **Leadership in Health Crises:** **WHO played a central role in managing global health emergencies such as:** 2003 SARS epidemic; 2009 H1N1 (swine flu) epidemic; 2014 Ebola outbreak **in West Africa**; 2016 Zika virus outbreak **in the Americas**; 2019 Ebola epidemic **in the Democratic Republic of Congo**; **COVID-19 pandemic in 2020**.
    - ▶ **Health Emergency Declarations:** WHO has the **exclusive authority** to declare global health emergencies. **Since 2007, it has done so six times, including during the COVID-19 pandemic.**

## UPSC PYQ

**Q: Critically examine the role of WHO in providing global health security during the COVID-19 pandemic. (2020)**

## US TO CLAMP DOWN ILLEGAL IMMIGRATION

### Context

United States President Donald Trump launched a **crackdown on immigration**, soon after assuming office. From his bid to **end birthright citizenship** to mobilising troops along the **US-Mexico border**, he took a hardline approach to illegal immigration. Amid Trump's sweeping immigration clampdown, reports have emerged that **India is planning to take back all its nationals living illegally in the US**.

### Illegal Indian Migrants in the US:

- As of 2022, there were around **220,000 illegal Indian immigrants** in the US. Indians make up **the third-largest group** of undocumented migrants in the country, after **Mexico and El Salvador**.
- The total number of undocumented migrants in the US is approximately 11 million, with many of them facing deportation orders.
- Among them, about 20,407 Indians are either in detention or facing final removal orders by the US authorities.
- India is actively engaged in repatriating illegal Indian immigrants. The US is planning to deport about 18,000 Indians back to India, and the process of identifying and returning these migrants has already started.
- Major **border points** for **U.S. entry**.
  - **Land Border Points (with Canada and Mexico):**
    - ◆ **U.S.-Mexico Border:** Key crossings include **San Ysidro (California), El Paso (Texas), Laredo (Texas), Nogales (Arizona), and Brownsville (Texas)**.
    - ◆ **U.S.-Canada Border:** Key crossings include **Detroit-Windsor (Michigan-Ontario), Niagara Falls (New York-Ontario), Seattle-Vancouver (Washington-British Columbia), and Port Huron-Sarnia (Michigan-Ontario)**.
    - ◆ **Sea Ports of Entry:** Major sea ports include **Port of Los Angeles, Port of New York/New Jersey, Port of Miami, Port of Houston, and Port of Seattle**.

### Why India is cooperating?

- By agreeing to take back its nationals, India is strengthening its relationship with the US under Trump's administration. India hopes that this cooperation will help protect the interests of its citizens, particularly in securing visas and work opportunities.
- India is also hoping that this move will help deter secessionist movements, such as the **Khalistan movement**, among the Indian diaspora in the US.
- Additionally, India is trying to avoid a trade dispute with the US. Trump has criticized India's high import taxes, and India wants to prevent any retaliatory measures that could hurt trade.

## India's challenges with illegal immigration

- Both India and the U.S. face significant challenges with illegal immigration, but the scale, causes, and responses differ greatly.
- India's challenge primarily comes from Bangladesh, with an estimated 20 million illegal immigrants residing in the country, according to 2016 estimates. The issue is particularly concentrated in border states like **Assam**, where tensions are high due to the influx of migrants, especially after political turmoil in Bangladesh.
  - India shares a **4,096-km border** with Bangladesh, which is largely porous and difficult to control. The border includes rivers, marshes, and densely populated villages, making fencing and surveillance challenging.
  - **Resistance:** India's efforts to fence this border have been met with resistance from Bangladesh. In January 2025, there was a confrontation between **India's Border Security Force (BSF) and Bangladesh's Border Guard (BGB)** over fencing projects, with Bangladesh citing a **1975 agreement** that prohibits certain border construction.'

### Types of Migrants and Their Legal Statuses

- **Migrants:** A migrant is anyone who moves from their place of birth to a different location, either within their own country or to another country.
  - **Internally displaced people** are individuals who move within their own country, often due to violence, natural disasters, or other reasons.
  - **International migrants** are those who move from one country to another, sometimes without legal permission.
- **Immigrants:** The term immigrant specifically refers to a person who settles in another country, legally or with permission, often seeking long-term residence. Immigrants can have various legal statuses, including:
  - **Permanent residents:** People with a green card that allows them to live and work in a country and apply for citizenship after several years.
  - **Special visas:** Some immigrants, like those with **T visas** (victims of human trafficking) or **U visas** (victims of serious crimes), are allowed to stay temporarily for up to four years.
  - **Work visas:** **H-1B visa** holders work for U.S. companies in specialized roles, and **F-1** student visa holders are typically international students who must return to their home country after graduation unless they secure work sponsorship or further education.



- **Asylum Seekers:** An asylum seeker is someone who arrives at a country (like the U.S.) and requests protection because they fear persecution in their home country. They might seek asylum because of threats based on their political beliefs, religion, ethnicity, or membership in a targeted group.
  - ▶ Seeking asylum is a human right. This means everyone should be allowed to enter another country to seek asylum.
- **Refugees:** Refugees are people who seek protection from conflict, violence, or persecution and apply for resettlement in a new country while still abroad. They are different from asylum seekers in that refugees apply for protection from outside the country they wish to enter.
  - ▶ The refugee definition can be found in the **1951 Convention** and regional refugee instruments, as well as **UNHCR's Statute**.

**Legal Framework in India**

- In India, all foreign nationals including refugees, asylum seekers and stateless persons are governed by the provisions contained in the:
  - ▶ **Foreigners Act, 1946** gives the central government the right to deport a foreign national.
  - ▶ **Passport Act, 1920:** It is mandatory for anyone entering India through water, land or air to possess their passport and also prohibits the entry of the person not possessing the document.
  - ▶ **Citizenship Act 1955:** As per the act, an illegal immigrant can be:
    - Foreign national who enters India on valid travel documents and stays beyond their validity, or
    - ▶ Foreign national who enters without valid travel documents.
    - ▶ Registration of Foreigners Act, 1939
- India is neither a signatory to the **1951 UN Refugee Convention** relating to refugee status nor of its 1967 Protocol.
- India is not a signatory to the **1951 United Nations Convention and 1967 Protocol Relating to the Status of Refugees**, and it does not currently have a national law on refugees.
- The refugees and asylum seekers were entitled to the rights in **Articles 14, 20 and 21 of the Constitution**.

**AI technology** to certain countries. These changes are meant to protect U.S. **national security** and **foreign policy interests**, making sure that advanced AI technologies don't end up in the wrong hands or are used irresponsibly.

**What Do the New Rules Propose?**

- The new rules mainly focus on **advanced computing chips** (which power AI systems) and **AI models** (software programs that process data to create outputs like information or media). These chips are crucial for developing AI technologies.
- The BIS is dividing countries into **three tiers** with different rules for exporting AI chips and technology:
  - ▶ **Tier 1:** No restrictions for 18 U.S. allies and partners (like **Australia, UK, Japan, South Korea**). They can get AI chips without extra approvals.
  - ▶ **Tier 2:** Countries like **China** and **India** are in this group. These countries can get chips, but only under certain conditions. For example, if the technology is used for advanced AI development, they need special permission (called **Validated End User** authorization). Basic chips with less computing power don't need approval.
  - ▶ **Tier 3:** Countries like **North Korea, Iran, and Russia** are restricted from getting this technology at all due to national security concerns.

**Why Are the Restrictions in Place?**

- The main concern is that **U.S. adversaries** could use advanced AI systems for **military** purposes, like improving their decision-making, planning, or logistics.
- There's also a fear that these technologies could help make **weapons of mass destruction** or support **cyberattacks** and **human rights abuses**.
- The U.S. government also worries about **Chinese companies** using subsidiaries in other countries to bypass these restrictions and buy U.S. chips.
- **Impact on India:** For **India**, the rules could affect companies that want to use **advanced AI chips** for big data centers. Indian companies may need to apply for special authorization to get these chips quickly.
  - ▶ However, India is **not in the group of trusted U.S. allies** because of past issues with chips being sold to **Russia**. This means that Indian companies may face extra hurdles when buying advanced technology from the U.S.

**U.S.'S NEW RULE FOR EXPORTING AI CHIPS**

**Context**

The **U.S. Bureau of Industry and Security (BIS)** has introduced new rules about the **export of AI chips** and



**FACT BOX**

**Advanced Computing Chips**

- **Advanced computing chips** are specialized hardware components that perform complex tasks in computing systems. These chips are designed to handle powerful computations, which are needed for tasks like **artificial intelligence (AI), machine learning, data analysis**, and other high-performance computing applications.

- These chips process vast amounts of data at high speeds, often far faster than standard computer processors.
- They are used in **AI systems** (like the ones that drive **self-driving cars**, **voice assistants**, and **facial recognition**), **supercomputers**, **cloud computing**, and **big data centers**.
- They are responsible for running algorithms (a set of instructions) that analyze huge datasets, make predictions, and solve complex problems. For example, AI models can analyze images, speech, or text with these chips.'

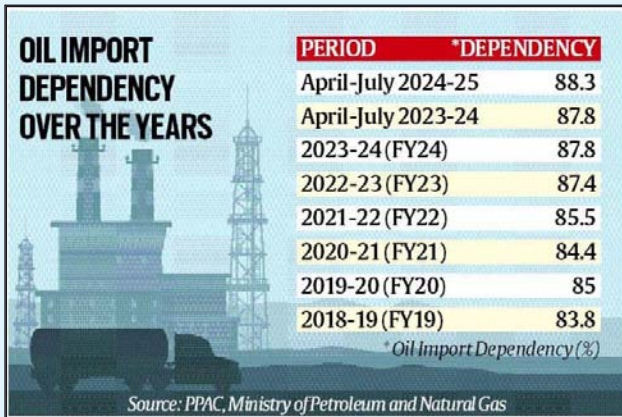


Figure No. 01

## Types of Advanced Computing Chips:

- GPUs (Graphics Processing Units):** Originally designed for graphics and gaming, GPUs are now essential in AI because they can perform many calculations in parallel, making them great for training AI models.
- TPUs (Tensor Processing Units):** These are specialized chips developed by Google for AI tasks. They are optimized for processing the types of mathematical operations common in machine learning.
- ASICs (Application-Specific Integrated Circuits):** These are custom-designed chips tailored for specific tasks, such as Bitcoin mining or AI computations. They are very efficient for the task they're designed for.

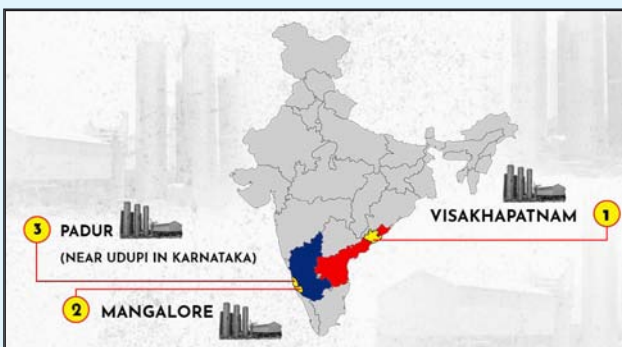


Figure No. 02

## IMPACT OF US SANCTIONS ON RUSSIA'S OIL TRADE AND INDIA'S OIL IMPORTS

### Context

The US has imposed new sanctions on Russia's oil trade, targeting 183 tankers (ships), which are part of **Russia's "shadow fleet."** This fleet has been used to **bypass Western sanctions** and continue selling Russian oil to countries like **India and China**.

### Why are these sanctions significant for India?

- Oil remains a crucial part of the global economy, influencing geopolitical dynamics and national revenues.
- India, as the **third-largest consumer of crude oil** in the world, is heavily reliant on oil imports.
- Before the war in Ukraine, Russia wasn't a major oil supplier to India, but since 2022, Russia became one of India's biggest suppliers due to **discounted prices**, as Western countries reduced their purchase of Russian oil.
- In 2024, nearly 38% of India's total oil imports came from Russia. However, these sanctions on Russian tankers could affect the smooth flow of this oil to India.

### Impact on India's Oil Trade

- The Indian economy is **"significantly vulnerable"** to fluctuations in oil prices. Domestic retail prices of gasoline and diesel surge "like rockets" in response to rising crude oil prices.

Analysis from the **Reserve Bank of India** in 2019 found that every \$10 per barrel rise in oil prices could lead to a 0.4% increase in headline inflation.

- Not only will China and India have to pay more for the oil they consume, they will need to pay more to have it delivered to their shores because oil tanker rates have also risen.
- Combined with a stronger U.S. dollar and weaker rupee, the impact on the India economy will be magnified.
- Alternative Suppliers:** If Russian oil becomes more expensive due to higher shipping costs, Indian refiners might turn to traditional suppliers such as **Iraq, Saudi Arabia, and the UAE**, which are already India's top oil sources.

### FACT BOX

#### India's Stand

- India is the **world's third-largest oil consumer**, utilising around 5.05 million barrels per day and accounting for 5% of the global share, according to the EIA.

- The country is projected to increase oil demand by nearly 1.2 million barrels per day (bpd) by the end of this decade, accounting for over a third of the global demand growth of 3.2 million barrels per day, as per the **International Energy Agency's (IEA) projections**.
- **Driving factors:** urbanisation, industrialisation, the emergence of a wealthier middle class keen for mobility and tourism, plus efforts to achieve greater access to clean cooking, which will underpin the expansion in oil demand.

**India's Strategic Crude Oil Reserves**

- The Indian Strategic Petroleum Reserves Limited is an Indian company responsible for maintaining the **country's strategic petroleum reserves**.
- The ISPR is a wholly owned subsidiary of the **Oil Industry Development Board (OIDB)**, which functions under the administrative control of the **Ministry of Petroleum and Natural Gas**.
- The ISPR has developed strategic crude oil reserves in underground rock caverns at three locations in India: **Visakhapatnam, Mangalore, and Padur (near Udupi in Karnataka)**.

**Internal Divisions in the Taliban**  
The Taliban is divided into two main factions:

- The **Kandahari faction**, led by figures like **Amir Khan Muttaqi**.
- The **Haqqani faction**, which has close ties to Pakistan.
- India is closely monitoring these divisions. Tensions between these factions, especially after the assassination of a key Taliban leader in December 2024, could create opportunities for India to influence the future direction of Afghanistan.

**India's Approach:**

Pragmatism and Opportunism India's new strategy is shaped by two key ideas:

- **Strategic Pragmatism:** India is balancing its interests by engaging with the Taliban while setting aside past ideological differences. It focuses on regional stability and security rather than political disagreements.
- **Strategic Opportunism:** India is also taking advantage of tensions between the Taliban and Pakistan. By condemning Pakistan's airstrikes in Afghanistan in December 2024, India showed its disapproval of Pakistan's actions, positioning itself as a responsible regional power.

**INDIA'S ENGAGEMENT WITH TALIBAN-LED AFGHANISTAN**

**Context**

India is engaging with the Taliban but remains cautious. India seeks regional stability, security, and better access to Central Asia.

**Background**

- India had previously been cautious about engaging with the Taliban after the group took control of Afghanistan in August 2021.
- Before that, India had a strong relationship with Afghanistan, helping with development projects, providing scholarships, and building infrastructure like roads and hospitals.
- The **fall of Kabul to the Taliban in 2021** disrupted India's influence, giving rivals like Pakistan and China a greater foothold in the region.
- However, India's approach to the Taliban has changed recently, as it navigates the new geopolitical reality.
- India has reportedly been in indirect talks with the **Haqqani Network**, a powerful faction of the Taliban responsible for attacks on Indian interests. However, India is unlikely to have formal relations with the Haqqani faction due to its links with Pakistan and its role in past attacks against India.

**India's Strategic Interests**

India's engagement with the Taliban helps it secure several strategic goals:

- **Regional Connectivity:** India wants to use Afghanistan to improve its access to Central Asia, bypassing Pakistan's ports.
- **Security:** India aims to prevent terrorism and maintain regional stability, especially by countering groups like **Lashkar-e-Tayyiba (LeT) and Jaish-e-Mohammed (JeM)**, which are active in Kashmir.
- **Humanitarian and Development Aid:** India continues to provide aid and build goodwill among the Afghan people, who have historically supported India's involvement in Afghanistan.

**Risks of Engaging with the Taliban**

- The biggest risk is the Taliban itself, as it is linked to terrorist organizations and has a history of violence.
- Despite its attempts to appear more moderate, India remains cautious about fully trusting the Taliban.

**Why the Taliban is Significant for India?**

- **Terrorism Threat:** India is concerned about Afghanistan becoming a base for groups like Lashkar-e-Tayyaba (LeT), Jaish-e-Mohammad (JeM), and ISKP, which target Indian interests. India aims to prevent Afghanistan from being a hub for anti-India terrorist groups, especially after the Taliban's return to power.

- **Regional Diplomacy:** Countries like Russia, China, Iran, and Central Asian nations have normalized ties with the Taliban, pushing India to do the same to secure its influence in Afghanistan and the region.
- **Space to Counter Pakistan:** Deteriorating Pakistan-Taliban ties give India space to secure its interests in Afghanistan and reduce Pakistan's influence there.
- **Chabahar Port:** India's development of Chabahar port in Iran aims to bypass **Pakistan's Karachi and Gwadar ports**, ensuring trade with Afghanistan and Central Asia. Engagement with the Taliban is key to enhancing connectivity.



## FACT BOX

### Taliban

- The Taliban, a predominantly **Pashtun tribe** which has a large presence across Afghanistan, is an ultra-conservative political and religious hardliner group.
- It refers to itself by its state name, the **Islamic Emirate of Afghanistan**.
- The Taliban which was the government in Afghanistan in 1996, was overthrown by the US-led military coalition in 2001 after Washington launched its '**war against terror**' focusing on the Al Qaeda and Osama bin Laden.
- Twenty years later, in 2021, when the US military left Afghanistan abruptly, the Afghan Taliban swept across the nation and regained its political importance by forming the government in the war-torn country.

## MULLAPERIYAR DAM SAFETY

### Context

The Supreme Court of India has recently intervened in the **long-standing dispute between Tamil Nadu and Kerala** over the safety of the **Mullaperiyar dam**, which has been in existence for 129 years. The court has asked both states to address whether the safety of the dam should be overseen by a committee formed by the court itself or a new statutory committee established under the **Dam Safety Act, 2021**.

### What is the issue?

- The Mullaperiyar dam, located in Kerala but managed by Tamil Nadu, is a major point of contention between the two states.
  - ▶ Kerala has raised concerns about the safety of the dam, citing risks such as **climate change, heavy rainfall, and potential floods**. Kerala has even proposed building a new dam, as it believes the existing one is deteriorating.
- **The Legal Dispute:** In previous years, the safety of the dam was supervised by a committee formed by the Supreme Court. The dispute escalated when Kerala

accused Tamil Nadu of obstructing necessary repairs and maintenance to ensure the dam's safety.

- ▶ Tamil Nadu countered by claiming that Kerala was deliberately delaying approvals for maintenance work and was not cooperating in the process.
- **Supreme Court's Intervention:** The Supreme Court has asked Tamil Nadu and Kerala to address the effectiveness of these two committees—whether the current one formed by the court or the statutory one under the **Dam Safety Act, 2021**—would be better suited to oversee the dam's safety.
- **Positions of the States:**
  - ▶ **Tamil Nadu's Position:** Tamil Nadu has criticized Kerala for raising concerns about the dam's safety while obstructing the necessary works and approvals to maintain it. Tamil Nadu has accused Kerala of delaying even routine maintenance work, which has hindered efforts to strengthen the dam.
  - ▶ **Kerala's Position:** Kerala, on the other hand, has pushed for the decommissioning of the dam and constructing a new one, citing safety risks posed by the aging structure and environmental factors like climate change.

### Mullaperiyar Dam

- The Mullaperiyar Dam, located in Kerala but operated by Tamil Nadu, is situated within the **Periyar Tiger Reserve**.
- **Constructed between:** 1887 and 1895
- **Objective:** to divert water of the **west-flowing Periyar river** to arid regions of the east.
- The Mullaperiyar Dam, 155 feet high and 1,200 feet long, was constructed between 1887 and 1895 under the supervision of the **British Corps of Royal Engineers**.
- Its purpose was to divert the waters of the west-flowing **Periyar River** eastward to arid regions of Tamil Nadu, specifically the districts of **Theni, Madurai, Sivaganga, and Ramanathapuram**.

### The Dam Safety Act, 2021:

- The Dam Safety Act, 2021, mandates the creation of a **National Committee on Dam Safety**, which is responsible for establishing safety policies, guidelines, and standards for dams across India.
- This new statutory committee is led by the Chairperson of the **Central Water Commission** and includes specialists in dam safety.
- The Supreme Court, however, questioned if the existing supervisory committee it created earlier was sufficient, or if the statutory committee under the new law would be more effective in managing the dam's safety.

## LIFE IMPRISONMENT IN RG KAR RAPE-MURDER CASE

### Context

Sanjoy Roy was sentenced to **life imprisonment** by a court in **Sealdah, Kolkata**, for the rape and murder of a junior doctor at the state-run RG Kar College and Hospital in August 2024. The case drew widespread public attention due to the **brutal nature of the crime** and Roy's position as a civic volunteer, which he exploited to commit the crime.

### Why Life Imprisonment Instead of Death Penalty?

- **Death Penalty Criteria:** Although the crime was violent, the court concluded that it did not meet the **"rarest of the rare"** standard required for capital punishment in India. This standard is applied in cases that are exceptionally brutal or shocking.
- **Reform Potential:** The defense successfully argued that the prosecution did not prove that Roy was incapable of reform. **Indian law mandates that for a death penalty to be imposed, the convict must be shown to be beyond reform.**
- Roy was found guilty under **Bharatiya Nyaya Sanhita (BNS)** sections 64 (rape), 66 (causing injury resulting in death of rape victim), and 103 (1) (murder).
  - ▶ **Section 103(1)** provides for the death penalty or life imprisonment
  - ▶ **Section 66** provides for imprisonment of not less than 20 years, which may be extended to life
  - ▶ **Section 64** lays down imprisonment of not less than 10 years, which may extend to life in prison.

### Legal Options for the Convict:

- **Appeal by Sanjoy Roy:** Roy has the right to appeal his conviction and sentence to the Kolkata High Court. He can challenge both the conviction and the life imprisonment sentence.
- **Prosecution's Appeal:** The prosecution can also appeal to a higher court, possibly seeking an enhancement of the sentence to the death penalty. Since the case is being handled by the Central Bureau of Investigation (CBI), they could request the government to file an appeal based on the argument that the sentence is too lenient.
- **Time Frame for Appeal:** Any appeal filed against the sentence must be disposed of within six months, as per the provisions of the **Bharatiya Nyaya Sanhita (BNS)**, which applies to cases under **Sections 64 and 66 (the sections Roy was convicted under).**

### Death Penalty in India (Controversy and High-Profile Cases):

- The death penalty is a contentious issue in India.
- The **2012 Nirbhaya gang-rape case** led to the execution of four convicts.

- Another famous case involved **Muthalagu's execution in 2004** for the murder of a family of five.
- The **assassination of Indira Gandhi in 1984** also saw death sentences for the convicts.

Arguments in favour of death penalty	Arguments against death penalty
<ul style="list-style-type: none"> <li>◦ <b>Retribution-</b> One of the key principles of retribution is that people should get what they deserve in proportion to the severity of their crime. This argument states that real justice requires people to suffer for their wrongdoing and to suffer in a way appropriate for the crime.</li> <li>◦ <b>Deterrence</b> - By executing convicted murderers, would-be murderers can be deterred from killing people.</li> <li>◦ <b>Closure:</b> It is often argued that the death penalty provides closure for victims' families.</li> </ul>	<ul style="list-style-type: none"> <li>◦ <b>Questionable:</b> The statistical evidence doesn't confirm that deterrence works. Some of those executed may not have been capable of being deterred because of mental illness or defect.</li> <li>◦ <b>The risk of executing the innocent persists:</b> There are certain risk of misinterpretation of the evidences and instances of false case, increases the risk of executing innocent persists.</li> <li>◦ <b>Morality:</b> It is seen as inhumane. Thus, the morality of the death penalty is debatable.</li> </ul>

## UGC VS STATE GOVERNMENT

### Context

Six state universities in Tamil Nadu have been without **Vice Chancellors (VCs)** for several months to over a year. The delay in appointing new VCs is due to a disagreement between the **Governor** (acting as the ex-officio Chancellor) and the **Tamil Nadu State Government** regarding the **composition of the search committee** that selects VCs.

### The Core Disagreement

- **Governor's Stance:** The Governor insists that a nominee from the **University Grants Commission (UGC)** must be included in the VC search committee. This is based on the **UGC Regulations, 2018**, which mandate such a nomination.
- **State Government's Stance:** The Tamil Nadu government argues that the search committee should follow the procedures outlined in the **State University Acts**. These Acts typically only require nominees from the **Chancellor**, the **syndicate** (a university body), and the **senate**, excluding the UGC.
- The **State government** opposes UGC involvement, fearing it undermines the autonomy of state universities.

## Legal Complications

The situation is complicated by **conflicting Supreme Court rulings**:

- **One set of rulings** supports the Governor's view, stating that **UGC regulations are mandatory** and can override State laws in case of conflict.
- **Another set of rulings** backs the State government's position, saying **UGC regulations are advisory** and cannot override State laws unless adopted by the State.

This confusion has made it difficult to resolve the issue.

Constitutional Issue: Can UGC Regulations Override State Laws?

- The core legal issue revolves around whether the **UGC regulations**, which are **subordinate legislation** (rules created under a central law), can **override State laws** (plenary laws passed by the State legislature). This issue is tied to **Centre-State relations**.
  - ▶ **Article 254(1)** of the Indian Constitution addresses situations where **Central laws** conflict with **State laws**. It says that if a State law conflicts with a Central law, the Central law will prevail. However, this rule applies to **plenary laws** (full laws passed by Parliament or State legislatures) and not to **subordinate legislation** (like UGC regulations).
- **Key Legal Precedents:** The **Supreme Court** has ruled in previous cases that **subordinate legislation**, such as **UGC regulations**, cannot override **plenary State laws**. The UGC can only issue **advisory** regulations for universities; it cannot enforce them on State universities unless the State adopts them.

## Conflicting Supreme Court Rulings

There have been some **conflicting rulings** by the Supreme Court:

- In some cases, the Court has ruled that **UGC regulations should be followed** by State universities, arguing that they are mandatory once laid before Parliament.
- In other cases, the Court has stated that **UGC regulations are not mandatory** for State universities unless the State adopts them.

This inconsistency in rulings has created confusion about the applicability of UGC regulations to State universities.

## UGC's Overreach

- The **UGC's regulations** about Vice Chancellor appointments are seen as **overreach**. The **UGC Act, 1956** does not specifically deal with the appointment of VCs.
- The enactment of the UGC Act 1956 is traced to **Entry 66 of the Union list**. Section 26 of this Act allows UGC to make regulations.
  - ▶ **Union list** is one of the three lists on the **7th schedule of the Constitution**. State list and Concurrent list are the other two.
  - ▶ According to **Article 246**, the central government has exclusive powers to make laws on the subjects in

the Union list, while the state government can make laws on subjects in the **State list**.

- ▶ As for the **Concurrent list**, both central and state governments can enact laws listed under it. But if there is a conflict between the laws, the central law will override the state law.
- The UGC's power is mainly advisory, and its regulations are meant to guide, not mandate.
- However, the UGC's insistence on including a nominee in the search committee reflects a shift towards more **administrative control** over universities, which the Tamil Nadu government sees as an **erosion of autonomy**.

## What Needs to Happen Next?

To resolve this issue, the matter needs to be clarified by the **Supreme Court**. The Court must decide:

- That **UGC regulations** are **advisory** for State universities unless adopted by the State.
- That **Article 254(1)** of the Constitution applies only to conflicts between **plenary laws**, not **subordinate legislation**.
- That **UGC regulations** do not automatically become part of the UGC Act just by being laid before Parliament.



### FACT BOX

#### University Grants Commission (UGC)

- The University Grants Commission (UGC) is a **Statutory Body** under **Ministry of Education, Department of Higher Education**.
- UGC came into existence on 28th December, 1953 by an Act of Parliament in 1956.
- The functions of the UGC are:
  - ▶ Planning and coordination of university education
  - ▶ Allocation of funds to higher educational institutions (HEIs)
  - ▶ Maintenance of academic standards
  - ▶ Regulation of the administration of HEIs
  - ▶ Regulation of admission of students to HEIs

## HINDENBURG'S EXIT

### Context

Hindenburg Research, a US-based short-seller firm, recently announced its decision to cease operations. This closure has stirred a range of reactions, particularly due to the firm's involvement in publishing a **highly controversial report in 2023 that caused a significant drop in the market value of a major corporate group**. Hindenburg's closure has led to speculation about its reasons, its business model, and the broader impact on markets.

## What Happened?

- **The 2023 Report:** In January 2023, Hindenburg published a report accusing a prominent corporate group of financial irregularities and market manipulation. The report claimed that the group had engaged in corporate fraud, leading to a dramatic loss of value in the company's shares. The accusations caused a ripple effect in the stock market, wiping out billions of dollars in value. The company and its promoters denied the allegations.
- **The Decision to Close:** In January 2024, Hindenburg announced its decision to shut down its operations. The firm's founder stated that it was a personal decision, unrelated to any external threat or personal health issue. However, critics have suggested that regulatory scrutiny, legal challenges, and financial viability issues might have contributed to the closure.
- **Legal and Regulatory Pressure:** The closure of Hindenburg coincided with ongoing investigations by regulatory bodies. Some experts believe that Hindenburg may have decided to shut down in order to avoid potential penalties. Concerns have been raised about the firm's business model, which involves short-selling stocks and publishing negative reports on companies, often without full transparency regarding its financial interests.

## Reasons Behind the Closure

- **Legal Scrutiny:** Hindenburg faced intense legal scrutiny after publishing its report. Regulatory bodies in several countries, including India, launched investigations to determine whether the firm's actions were part of a broader scheme to manipulate markets or destabilize companies for profit. The firm's decision to close operations might be a response to these investigations.
- **Financial Viability:** The firm's business model has been questioned for its long-term sustainability. Short-selling, while profitable in some cases, rarely provides consistent returns. Experts suggest that the firm's approach, which combined publishing reports with taking short positions on the targeted companies, could have led to financial challenges. As markets recover and regulatory scrutiny increases, sustaining such a model could become increasingly difficult.
- **Political and Market Pressures:** There are also claims that external political and market pressures may have played a role in the firm's closure.

## Impact

- **Stock Market Volatility:** The report published by Hindenburg in 2023 had a significant impact on the stock market. The targeted company saw a steep decline in its market valuation, which led to a wider ripple effect in global financial markets. Although the company has since recovered much of the lost ground, the incident raised questions about the power of short-sellers and the potential risks to market stability.
- **Public Perception of Short-Selling:** The closure of Hindenburg has sparked a wider debate about the ethics and impact of short-selling. While some see

short-selling as a legitimate market practice that helps expose financial mismanagement, others view it as a predatory activity that harms companies and markets. Hindenburg's approach—publishing critical reports while simultaneously taking short positions—has been criticized for creating conflicts of interest and potentially manipulating market sentiment.

- **Regulatory Concerns:** The closure has drawn attention to the effectiveness of current financial regulations. Authorities are now focusing on ensuring that firms engaging in short-selling and similar practices are held accountable for their impact on market integrity. The closure of Hindenburg may prompt a re-examination of how such firms operate and whether new rules are needed to protect investors and maintain market stability.

### Important Concepts Involved

- **Short-Selling:** Short-selling involves betting against a stock, where investors borrow shares and sell them in anticipation of a price drop.
  - ▶ If the price falls, the investor can buy back the shares at a lower price, returning them to the lender and pocketing the difference.
  - ▶ Short-selling can be a legitimate tool for hedging or speculating but can also be used to profit from a company's failure, which has led to ethical debates.
- **Naked Short Selling:** In naked short selling, stocks are not borrowed. Therefore, in times of panic, more people could dump their holdings, without any obligation to fulfil their settlements, thereby pushing the prices of the stock further down. It is illegal.
- **Market Manipulation:** Market manipulation refers to actions that distort the natural functioning of the market, such as spreading misleading information to affect stock prices.

## CERVICAL CANCER AWARENESS AND THE HPV VACCINE

### Context

January is **Cervical Cancer Awareness Month**, a time when doctors urge women to get screened for cervical cancer, an important health issue, especially in India. Let's break down why this disease is a concern and what can be done to prevent it.

### What is Cervical Cancer?

- Cervical cancer develops in the **cervix**, the lower part of the uterus (womb) that connects to the vagina.
- It is one of the **leading causes of cancer** among women in India. The primary cause of cervical cancer is **Human Papillomavirus (HPV)** infection.

○ Around **99.7% of cervical cancers worldwide** are caused by certain types of HPV.

○ **Cervical Cancer Burden in India:** Cervical cancer is the **third most common cancer** among women in India, with an **incidence rate of 18.3%**, translating to around **123,907 cases** annually. It is also the **second-leading cause of cancer-related deaths** among women in the country.

#### □ Key statistics:

- ▶ **Cervical cancer** accounts for **6-29% of all cancers** in Indian women.
- ▶ The highest incidence of cervical cancer is found in **Papumpare district**, Arunachal Pradesh (27.7 cases per 100,000 people).

#### HPV Vaccine:

○ The **HPV vaccine** is a powerful tool in preventing cervical cancer. It works by stimulating the body's immune system to produce antibodies that fight against HPV infections, the leading cause of cervical cancer. Vaccination is most effective when given before a person is exposed to the virus, ideally in **pre-teens or teenagers**.

#### ○ Vaccine Availability in India

- ▶ The **HPV vaccine** has been available in India since **2008**, but its high cost has made it less accessible.
- ▶ Currently, HPV vaccines can only be obtained **through private practitioners** in India.
- ▶ Some states like **Punjab and Sikkim** have already included the HPV vaccine in their immunization programs.
- ▶ The **National Technical Advisory Group on Immunization (NTAGI)** has recommended the inclusion of the vaccine in India's **national immunization program**, particularly for girls aged **9-14**.
- ▶ The **Indian government** announced its plans to focus on cervical cancer prevention in its **Interim Budget 2024**. This marks a significant step toward making the vaccine more accessible to the public.
- ▶ **Importance of HPV Vaccination for Both Genders:** The HPV vaccine is not only recommended for women but also for men and boys. It helps prevent genital warts, and certain cancers related to HPV, including anal, throat, and penile cancers. Boys and young men aged 9–26 should get vaccinated, as well as unvaccinated adults up to 45 years.

#### HPV Vaccine Options in India

India has authorized several HPV vaccines:

- **Gardasil** (a quadrivalent vaccine) – Protects against HPV types 6, 11, 16, and 18.
- **Cervarix** (a bivalent vaccine) – Protects against HPV types 16 and 18.
- **Cervavac** – An **India-made** vaccine developed by the **Serum Institute of India**, which also protects against HPV types 16 and 18, and is approved for ages **9 to 26**.

○ **Cervavac** is priced at around **Rs 2,000 per dose**, making it more affordable than imported options like **Gardasil**.

○ **Gardasil 9** costs around **Rs 10,850 per dose**, while **Gardasil 4** is priced between **Rs 2,000 and Rs 4,000 per dose**.

#### Challenges to HPV Vaccination in India

Despite the proven effectiveness of the HPV vaccine, there are several **challenges** that affect its uptake in India:

- ▶ **High Cost:** Vaccines like **Gardasil** are expensive, making it unaffordable for many.
- ▶ **Lack of Awareness:** Many people are unaware of the vaccine and its importance in preventing cervical cancer.
- ▶ **Cultural Barriers:** Cultural perceptions around **reproductive health** and **vaccination** prevent many women from getting vaccinated.

## ILO'S REPORT ON INTERNATIONAL MIGRANT WORKERS (2022)

### Context

The **International Labour Organization (ILO)** has released the fourth edition of the *Global Estimates on International Migrant Workers*, highlighting the significant role that international migrants (IMs) play in global economic growth, through both addressing labor shortages in host nations and contributing remittances to their home countries.

### International Migrants in the Global Workforce

- **4.7% of Global Labour Force:** In 2022, international migrants made up **167.7 million** of the global labor force, accounting for **4.7%** of the total workforce. This number has increased by over **30 million** since 2013. However, the growth rate slowed down post-2019, largely due to the COVID-19 pandemic, with an annual growth rate of less than **1%**.
- **Employment Status:** Of these, **155.6 million** were employed, and **12.1 million** were unemployed but available for work.

### Gender and Age Distribution

- **Gender Gap:** Among male international migrants, **61.3%** were employed, while for female migrants, only **38.7%** were employed. Although fewer women were employed, the number of female migrants has steadily increased since the ILO began tracking such data in 2015.
- **Age Demographics:**
  - ▶ **Prime-age workers** (aged **25-54 years**) made up **74.9%** of the migrant workforce.
  - ▶ Young workers (aged **15-24 years**) accounted for **9.3%** of international migrant workers.
  - ▶ Older workers (aged **55+ years**) made up **15.9%** of the international migrant workforce in 2022.



## Sectors of Employment for Migrants

- **Services Sector Dominates:** The largest share of international migrants (68.4%) worked in the **services sector**, with a dominant share of **80.7%** women compared to **60.8%** men in this sector.
  - This trend has remained stable for the last decade, with migrant workers consistently making up over **67%** of the services sector.
- **Industry and Agriculture:**
  - **Industry** absorbed **24.3%** of migrant workers, a proportion similar to that of non-migrants.
  - **Agriculture** employed **7.4%** of international migrants, significantly lower than the **24.3%** share of non-migrants in this sector.

## Main Host Countries for Migrants

- **High-Income Countries:** These countries absorbed **68.4%** of all international migrants, with a heavy concentration in the **services** sector, especially in **care-related** jobs.
- **Upper-Middle-Income Countries:** These countries hosted **17.4%** of international migrants, with the majority also working in services.
- **Regional Distribution:**
  - **Europe** (Northern, Southern, and Western) accounted for **23.3%** of global migrant workers, a slight increase since 2013.
  - **Northern America** saw a slight decrease to **22.6%** in 2022.
  - **Arab States** experienced a decline to **13.3%**, with a drop of about **3 percentage points** since 2013.

## BOOSTING CONSUMPTION

### Context

In order to revive India's slowing economic growth, the focus should be on **boosting consumption**. As per reports, **private investments** (capex) have not picked up as expected, and government spending (capex) has also declined.

### What are the current issues in the economy?

- **Middle Class and Inflation:** The **middle class** is hoping for relief from **high food prices**, which would lead to higher **disposable incomes**, especially in **urban areas**. In December, the inflation rate was 5.22%, largely due to a **seasonal drop in food prices**, like fruits and vegetables.
- The global economy in 2025 is expected to be **unpredictable**, with **disinflation** (slowing inflation) happening at uneven rates across different regions.
  - While **disinflation** could help **households** with limited financial resources, **inflation pressures** may rise due to **uncertainty** in the global economy. As a result, **interest rate decisions** may become more difficult and uncertain.

### Need of consumption:

- **Private investment** and **manufacturing** were identified as the main factors slowing down India's growth. This is the right time to spark economic growth by **stimulating consumer demand**. This, in turn, could lead to more **investments** in the economy.
- **Private consumption** (spending by individuals) is improving, largely due to the rise of **e-commerce** and **quick commerce (q-commerce)**, where goods are delivered quickly. While this growth is good for competition, there should be no **restrictive policies** that hinder this trend.

## What is Consumption?

- **Consumption** refers to the **use** or **purchase** of goods and services by individuals or households. When people buy food, clothing, electronics, or even pay for services like healthcare or education, they are engaging in consumption.
- It is the **end-point** of economic activity, as it involves the final use of products and services.
- **Significance:**
  - **Consumption** is a key driver of **economic growth**. In any economy, the more people consume, the more businesses produce and sell, which leads to **higher demand** and **increased production**.
  - A strong level of consumption signals that the economy is **healthy**, as people are confident enough to spend money on goods and services.

## Role of Consumption in Economic Growth:

- **Demand Creation:** When consumers spend money, it **creates demand** for goods and services. This leads to businesses needing to **produce more**, which can drive **investment** in factories, technology, and infrastructure.
- **Boosting Production and Employment:** Increased consumption encourages companies to hire more people, increase **production**, and expand businesses. This can create jobs and help reduce **unemployment**.
- **Economic Stabilizer:** In times of economic downturns, when **investment** or business spending might be low, **increased consumption** can help keep the economy stable and prevent a recession.
- **Government Policies:** Governments often try to encourage consumption through policies that increase people's disposable income, like tax cuts, subsidies, or lower interest rates on loans.

## WEAKENING OF INDIAN RUPEE

### Context

The Indian rupee recently saw a **sharp devaluation** against the US dollar after remaining relatively stable for over two years.

## What is an Exchange Rate?

- An exchange rate is the value of one country's currency in terms of another country's currency. It tells you how much of one currency you need to buy a unit of another currency.
  - ▶ **For example:** If 1 US Dollar (USD) equals 75 Indian Rupees (INR), the exchange rate between the US Dollar and the Indian Rupee is 75 INR per USD.
  - ▶ **Types:**
    - ◆ **Nominal Exchange Rate:** This is the price of one unit of foreign currency in terms of the domestic currency. For example, how many rupees it takes to buy one dollar.
    - ▶ **Real Exchange Rate:** This reflects the relative prices of goods between two countries. It shows how cheap or expensive domestic goods are compared to foreign goods after considering the exchange rate.

The exchange rate is influenced by the **supply and demand for foreign currencies** in the market. If there's a higher demand for foreign currencies (like the dollar), the domestic currency (rupee) may weaken or depreciate.

## Exchange Rate Policies:

India follows a **managed floating exchange rate regime**. This means the Reserve Bank of India (RBI) manages the exchange rate by **adjusting the supply of foreign currency** in the market and **intervening when needed**. In this system, the RBI may let the currency fluctuate but can intervene to prevent excessive depreciation or appreciation.

- **Fixed Exchange Rate:** The central bank fixes the exchange rate and uses reserves to maintain it.
- **Floating Exchange Rate:** The currency value is determined by the market forces of supply and demand, and the central bank does not intervene.
- **Managed-Floating Exchange Rate:** A hybrid system where the central bank manages the currency, intervening when necessary but letting the market decide to some extent.

Since the **1990s**, India has followed a managed-floating regime, with the RBI intervening in the market when there is excessive demand for foreign currency or excessive appreciation of the rupee.

## Why Did the Rupee Depreciate?

There were two main reasons for the rupee's sharp depreciation:

- **Higher Capital Outflows:** With investors pulling money out of India, the demand for foreign currency (like dollars) increased, leading to depreciation of the rupee.
- **Increased Imports:** Rising crude oil prices increased India's import bill, further increasing demand for foreign currency.

The RBI allowed the rupee to depreciate to ease the pressure on its **foreign exchange reserves**.

## Implications of the Depreciation:

A depreciation of the rupee can have **both positive and negative effects** on the economy:

### Positive Impact:

- ▶ **Exports may increase:** A cheaper rupee makes Indian goods cheaper for foreign buyers, potentially increasing exports.
- ▶ **Competitiveness improves:** Indian goods become more attractive in the global market as they become relatively cheaper.

### Negative Impact:

- ▶ **Rising Domestic Prices:** As the rupee weakens, the cost of imported goods (like raw materials) rises, leading to inflation.
- ▶ **Cost of Living Increases:** Imported goods and services, including fuel, become more expensive, which impacts consumers.

However, the effectiveness of depreciation in improving exports has been **limited recently** due to **rising domestic prices**. This is because the **real exchange rate** (which considers inflation and domestic prices) has been **rising** despite the nominal depreciation of the rupee. In simpler terms, domestic prices have been rising, making Indian goods relatively more expensive even though the rupee has weakened.

## The Policy Question:

- **What should India's exchange rate policy aim to achieve?**
  - ▶ Should India continue with its **managed-float regime** or switch to a more **explicit exchange rate policy**?
  - ▶ The recent shifts in the rupee's value suggest that the RBI's policy stance might be **inconsistent** and has lacked a clear direction. For example, the RBI has often changed its approach without clearly explaining the reasoning behind these shifts.

The challenge lies in ensuring that the depreciation of the rupee does not lead to higher **inflation** or **higher domestic prices** while also trying to support **exports** and manage the **current account deficit**.

## TAX AVOIDANCE TREATY

### Context:

The Central Board of Direct Taxes (CBDT) has clarified its stance on Principal Purpose Test (PPT) regarding Double Taxation Avoidance Agreement (DTAA), stating that it will be applicable prospectively, allowing grandfathering of prior investments. This clarification is especially important for investments made before the PPT was introduced in certain treaties, specifically the India-Mauritius, India-Cyprus, and India-Singapore DTAA.

### What is the Principal Purpose Test (PPT)?

- The PPT is a test used to determine whether the main purpose of a transaction or arrangement is to gain tax benefits from a **Double Taxation Avoidance Agreement (DTAA)** between countries.
- **Substance** requirements: To pass the PPT, taxpayers must prove that their activities have real substance in the country where they claim tax benefits (e.g., employees, offices, turnover, expenses).

### Key Points in the New Guidance Note:

- **Applicability of PPT:** The PPT provisions will **only apply prospectively**. This means that it will apply to agreements made after the guidance note was issued, and not retroactively to agreements or transactions entered into before this.
- **Grandfathering Provisions in Some DTAA's:** India has made **special bilateral commitments** in its treaties with **Cyprus, Mauritius, and Singapore**. These commitments are known as **grandfathering provisions**.
  - ▶ These grandfathering provisions **will not be affected** by the new PPT guidelines. They will continue to apply as per the terms agreed in the respective DTAA's.
- **Clarification on Treaty-Specific Commitments:** The CBDT (Central Board of Direct Taxes) has clarified that these **grandfathering commitments** in the **India-Cyprus, India-Mauritius, and India-Singapore** treaties are **separate** from the new PPT provisions.
  - ▶ These commitments will be governed by the specific terms outlined in the treaties with these countries, and **won't be impacted by the PPT**.
- **Impact on the India-Mauritius Treaty:** Before this clarification, there was some **uncertainty** about how the **India-Mauritius treaty** would be affected by the PPT provisions. With this guidance note, it is now clear that the **grandfathering provisions** in the **India-Mauritius treaty** will remain intact, which might allow the protocol for this treaty to come into effect starting **April 1, 2025**.
- **Reference to BEPS Action Plan 6 and UN Model Tax Convention:** The guidance also **encourages tax authorities** to refer to the **BEPS Action Plan 6** (Base Erosion and Profit Shifting) and the **UN Model Tax Convention** when deciding how to apply the PPT provisions.
  - ▶ **BEPS Action Plan 6** aims to prevent tax avoidance through treaty abuse.
  - ▶ The **UN Model Tax Convention** provides a framework for countries to draft their tax treaties, with certain reservations by India.

### What is a Double Taxation Avoidance Agreement (DTAA)?

- A **Double Taxation Avoidance Agreement (DTAA)** is a tax treaty signed between two countries to avoid the situation where a taxpayer is taxed on the same income in both countries. The main objectives of DTAA's are to:

- ▶ **Avoid Double Taxation:** Prevent individuals and companies from paying taxes in both countries on the same income.
  - ▶ **Promote Investment:** By reducing tax barriers, DTAA's encourage cross-border investment and economic cooperation between countries.
  - ▶ **Allocate Taxing Rights:** DTAA's specify which country has the right to tax specific types of income (e.g., interest, dividends, capital gains).
- India has **over 90 DTAA's** with countries worldwide, including major ones like the **United States, United Kingdom, Mauritius, Singapore, and Cyprus**.

### Grandfathering Provisions

- **Grandfathering provisions** are exceptions made for **pre-existing investments** or transactions, ensuring that they continue to receive the same tax benefits that were available at the time the agreement was signed, even if new rules (like PPT) are introduced later.
  - ▶ **Example:** In some DTAA's (like with **Mauritius, Cyprus, and Singapore**), there are specific grandfathering provisions to protect the **tax benefits of earlier investments**, even when PPT is introduced.

## INVESTMENT REQUIREMENT FOR INDIA'S MARITIME SECTOR

### Context

India's maritime sector is poised for significant growth, with the **Union Ministry of Ports, Shipping & Waterways** estimating that India will need an investment of **USD 1 trillion by 2047** and **₹5 lakh crore by 2030** to fully harness its potential. This investment is crucial to make India one of the top 10 maritime countries in the world by 2047.

### India's Maritime Sector Overview

- India is home to **12 major ports** and over **200 minor ports**. As the **16<sup>th</sup> largest maritime nation** in the world, India occupies a key position on global shipping lanes. Most cargo ships traveling between **East Asia** and destinations like **America, Europe, and Africa** traverse Indian waters.
- India's maritime sector is the backbone of its international trade, handling:
  - ▶ **95% of India's trade by volume.**
  - ▶ **70% of India's trade by value.**
- **Key Stats:**
  - ▶ **1,530 ships** under India's flag in 2023.
  - ▶ India is the **third-largest global ship recycler** by tonnage.
  - ▶ India's growing presence in global shipping and its expanding port infrastructure have contributed significantly to its economic growth. From 2014-

15 to 2023-24, India's major ports increased their cargo handling capacity by **87%**, from **871.52 MT** to **1,629.86 MT**.

## Key-Transformation in the maritime sector

- **Green hydrogen production hubs** are being established at **Paradip, Tuticorin, and Kandla ports**. These hubs will contribute to reducing carbon emissions from the maritime sector.
- **Ship Recycling and the Hong Kong Convention:** India is poised to become a global leader in **ship recycling**. The **Hong Kong Convention on Ship Recycling** is set to come into effect in **June**, and India is already compliant with the Convention's standards.
  - ▶ **Alang Shipyards** in Gujarat are among the largest and most advanced in the world for ship recycling, positioning India as the **global hub for ship recycling**.
- **Port Capacity Expansion:** India's port capacity will increase sixfold by **2047**, aiming to reach **10,000 Million Tons (MT) per annum**.
  - ▶ **Current Port Capacity:** India's major ports are already handling **820 Million Metric Tons (MMT)** of cargo annually, showing a **47% growth** since 2014.
  - ▶ **Paradip Port** became the largest major port by cargo volume, handling 145.38 million tonnes in FY24.
  - ▶ **Future Plans:** The **Vadhavan Port** (Maharashtra) is set to become India's largest container facility. Also, the **International Container Transshipment Port** at **Galathea Bay** (Great Nicobar) will help capture transshipment trade along key global routes.
- **Efficiency Gains in Port Operations:** India has made significant improvements in port operations:
  - ▶ **Container Dwelling Time:** Reduced to **3 days**.
  - ▶ **Vessel Turnaround Time:** Improved to **0.9 days**, surpassing the performance of several advanced economies.
  - ▶ **Global Recognition:** Nine Indian ports now feature in the **World Bank's Container Port Performance Index 2023**, with **Visakhapatnam** ranked among the **top 20 globally**.

## Challenges in Shipbuilding and Repair

While India's maritime sector is growing rapidly, there are challenges in the areas of:

- **Skilled Labour:** There is a shortage of skilled workers for shipbuilding and repair.
- **Sustainable Fuel:** Adoption of sustainable fuel is crucial for transitioning to a **net-zero emissions** future in the maritime industry.



## FACT BOX

### Key Government Initiatives in the Maritime Sector

- **Sagarmala Programme:** It is a flagship initiative by the **Ministry of Ports, Shipping, and Waterways (MoPSW)**. It focuses on **port-led development** using India's **7,500 km coastline**. It supports projects such as **coastal berths, rail and road connectivity, and fish harbors**.
- **Maritime India Vision (MIV) 2030:** It is a comprehensive blueprint to position India as a global maritime leader by 2030. It aims to boost ports, shipyards, inland waterways, and trade bodies.
- **Inland Waterways Development:** The **Inland Waterways Authority of India (IWAI)** is developing **26 new national waterways**, offering an alternative transport mode to reduce pressure on road and rail networks.
- **Green Tug Transition Program (GTTP)** aims to phase out conventional, fuel-based harbour tugs at Indian major ports.

## INDIA AND SINGAPORE DEEPENING COOPERATION IN SEMICONDUCTORS

### Context:

Singapore's President, Tharman Shanmugaratnam, recently visited India, focusing on strengthening bilateral ties and exploring new initiatives in key sectors like technology and manufacturing.

### Key-highlights of the Visit

- Singapore's President visited India to mark the **60th anniversary of diplomatic relations between the two countries**. He is focusing on strengthening ties, especially in the eastern states of India, like Odisha and Assam.
  - ▶ During his visit, the President underscored the growing partnership between Singapore and India, which has been upgraded to a "Comprehensive Strategic Partnership." This move reflects the desire to deepen cooperation in multiple sectors, including renewable energy, digital technologies, and advanced manufacturing.
- **Semiconductor Cooperation:** Singapore is looking to help India build a semiconductor ecosystem, including advanced manufacturing and technological solutions. The collaboration aims to enhance India's capabilities in the semiconductor industry, an area of growing global importance.

- **Digital and Financial Cooperation:** Singapore and India are also exploring a **data corridor between Gujarat's Gift City and Singapore**. This initiative will allow their financial institutions to safely exchange data, enhancing economic and technological collaboration.

### What are India's Current Semiconductor Capabilities?

- India is strong in the design stage of semiconductors. It is home to 20% of the global talent pool for chip design, with many professionals employed by global companies like AMD. India's domestic chip design sector is growing, especially with the government's **Design-linked Incentives (DLI)** program that supports local design firms.
- **Chip Fabrication (Fabs):** India is a newcomer in the manufacturing side of semiconductors.
  - ▶ Although India has no semiconductor manufacturing plants (fabs) of its own yet, a major step was taken in March 2024 with the launch of India's first semiconductor fab in 30 years at Dholera. This facility is a joint venture between Taiwan's PSMC and Tata Electronics. The Indian government is funding 70% of the investment, while Tata and PSMC are managing the technology transfer and training.
  - ▶ **India's Semiconductor Value Chain:** The semiconductor value chain has four main stages:
    - ◆ **Design:** India has a strong presence here.
    - ◆ **Manufacturing (Fabs):** India is developing this area.
    - ◆ **Assembly, Testing, and Packaging (ATP):** India could focus more on this to get faster results.
    - ◆ **Distribution:** This is the final stage where chips are distributed to electronic manufacturers.

### Challenges India Faces in Building Semiconductor Fabs:

- **High Cost of Semiconductor Fabs:** Building a semiconductor fabrication plant (fab) is extremely expensive. In the early 2020s, the cost of setting up a fab was over \$20 billion, a significant increase from USD 200 million in the 1980s. These costs make it a risky investment, especially since achieving technological sovereignty (self-reliance) is not guaranteed.
- **Resource-Intensive Nature of Fabs:** Fabs need a constant, reliable power supply and vast amounts of **ultrapure water** (up to 10 million gallons daily) to clean silicon chips. This could put pressure on India's already strained water resources and energy grid, especially as India works towards meeting **net-zero emission targets**.
- **Shortage of Skilled Workers:** There is a shortage of skilled workers in semiconductor manufacturing in India. The **National Skill Development Corporation (NSDC)** report from 2022 highlights this issue, estimating that India could face a shortage of **250,000 to 300,000 professionals** in the semiconductor industry by 2027.
- **Dependence on Imports:** India is highly dependent on imports for critical raw materials, especially **Rare Earth Elements (REEs)**, which are crucial for chip manufacturing. Despite holding 6% of global REE reserves, India has not developed its mining infrastructure for these materials

since the 1950s. Only 10-20% of India's exploration capacity for critical minerals has been used.

### India's Semiconductor Strategy (Moving Forward):

- **Short-Term Strategy (ATP Focus):** Instead of immediately focusing on expensive and resource-heavy semiconductor fabs, India could prioritize the **back-end stages** like **Assembly, Testing, and Packaging (ATP)**. These stages are capital-light (require less money) but still labor-intensive and can be more easily integrated into India's existing industrial landscape. This could be a faster, more feasible way to get involved in semiconductor manufacturing.
- **India Semiconductor Mission (ISM):** Launched in December 2021, this initiative is crucial for India's semiconductor ambitions. It offers two key types of incentives:
  - ▶ **Production-Linked Incentives (PLI):** For companies that set up manufacturing units in India.
  - ▶ **Design-Linked Incentives (DLI):** For domestic companies involved in chip design. The ISM also focuses on establishing **semiconductor fabs, testing facilities, and design centers** within India.

### What Needs to Be Done:

- **Invest in Fabs:** India needs to continue its investments in semiconductor fabrication plants, like the Dholera fab, while ensuring cost-effectiveness and efficiency.
- **Develop Resource Infrastructure:** India should focus on improving its water management systems and energy supply to meet the needs of semiconductor fabs without overburdening resources.
- **Bridge the Skill Gap:** India must focus on upskilling its workforce to meet the growing demand for semiconductor professionals. This includes training more engineers and technicians and expanding semiconductor education programs.
- **Boost Rare Earth Element Mining:** India should begin exploring and developing its reserves of **Rare Earth Elements (REEs)** to reduce dependence on imports, ensuring a steady supply of critical materials for semiconductor manufacturing.
- **Support ATP Development:** India should prioritize developing the ATP (Assembly, Testing, and Packaging) part of the semiconductor process, as it is more cost-effective and can be rapidly scaled.



#### FACT BOX

#### What is a semiconductor?

- Semiconductors are materials that possess properties between those of conductors (such as metals) and insulators (such as glass or plastic).
  - ▶ The most commonly used semiconductor material is silicon (Si).

- The conductivity component of semiconductors can be altered by introducing impurities through a process called "doping." By adding specific impurities, the semiconductor's electrical properties can be controlled.
- **Application:** Microprocessors, memory chips, commodity integrated circuits, microcontrollers, transistors and others.

### Government Interventions

- **India Semiconductor Mission (ISM)** has been a major government intervention to attract investments and incentivise local production. Launched in December 2021, ISM offers production-linked and design-linked incentives for firms to establish semiconductor fabrication units, testing facilities, and design centres within India.
- **India's first National Security Semiconductor Fabrication Plant:** India, with the help of US Space Force, is planning to set up its first semiconductor fabrication plant solely dedicated to national security, an initiative that will provide critical chips to the US military, allied forces, and India's own defence sector.

Named '**Shakti**,' the fabrication plant will be one of the world's first multi-material fabs dedicated to national security.

- India has been elected Vice Chair of the **Indo-Pacific Economic Framework's Supply Chain Council**.
- India is also a significant partner in the **QUAD Semiconductor Supply Chain Initiative**.
- The **chip fabrication facility in Dholera, Gujarat**, is being set up by Tata Electronics.
- The Semiconductor Assembly, Testing, Marking and Packaging (ATMP) facility in Morigaon, Assam is being set up by Tata Electronics.
- The Maharashtra government has approved a chip manufacturing project (Panvel in Raigad district), to be jointly set up by Israel's Tower Semiconductor and the Adani Group.
- The **Outsourced Semiconductor Assembly and Test (OSAT) facility in Sanand**, Gujarat is being set up by CG Power and Industrial Solutions Ltd.
- The Cabinet has also approved the proposal of **Kaynes Semicon** to set up a semiconductor unit in Sanand, Gujarat.



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## SECTION - B

## QUICK BYTES

## PARAKRAM DIWAS 2025

## Context

Every year on January 23, India observes Parakram Diwas to celebrate the birth anniversary of Netaji Subhas Chandra Bose, one of India's most revered freedom fighters.

## What is Parakram Diwas?

- The Government of India officially declared January 23 as Parakram Diwas in 2021, marking the 124th birth anniversary of Netaji.
- Parakram Diwas highlights Netaji's bravery and determination in the face of adversity. It reminds of his leadership in the **Indian National Army (INA)**, where he united Indian soldiers to fight against British rule.
- His role in establishing the **Azad Hind Government** is also significant as it showed his deep commitment to India's freedom struggle.
- This day acts as a reminder of how far India has come and what values we should continue to uphold for progress and unity.

## Netaji Subhas Chandra Bose (1897-1945)

- Born on January 23, 1897, in Cuttack, Odisha, Bose came from a prominent Bengali family.
- He initially studied in Cuttack, later moving to Scottish Church College and Presidency College in Calcutta.
- During his college days, Bose developed a strong nationalist ideology and got involved in revolutionary activities against British colonial rule.
- **Career in Civil Services:** In 1921, Bose excelled in the **Indian Civil Services (ICS) examination** in England. However, his passion for India's freedom made him

resign from this prestigious career and return to India to work for independence.

- ▶ In 1921 he resigned from the Indian Civil Service and returned to India.
- Netaji worked under the mentorship of prominent Congress leader **Chittaranjan Das** who, along with **Motilal Nehru**, left the Congress Party to form the **Swaraj Party in 1922**.



## ◦ Leadership in Indian National Congress

- ▶ In 1923, Bose was elected president of the **All India Youth Congress**.



- ▶ Bose actively participated in the **Salt Satyagraha of 1930** and opposed the suspension of the **Civil Disobedience Movement**, criticizing the **Gandhi-Irwin Pact of 1931**.
  - ▶ In 1938 and 1939, he was elected **President of the Indian National Congress (INC)**. During this time, he pushed for more radical action against British rule.
  - ▶ In 1939, he founded the **Forward Bloc**, a group within the Congress aiming to strengthen resistance against the British. This marked his shift towards more aggressive nationalism.
- **Formation of the Indian National Army (INA)**
- ▶ During **World War II**, Bose saw an opportunity to use global tensions to his advantage.
  - ▶ In 1942, he formed the **Indian National Army (INA)**, consisting of Indian soldiers who were prisoners of war under the British.
  - ▶ The INA fought alongside **Axis powers (mainly Japan)** against the British in Southeast Asia. His famous slogan, **"Give me blood, and I will give you freedom"**, inspired millions of Indians to join the struggle for independence.
  - ▶ The INA's primary objective was to liberate India from British rule by attacking British-occupied territories, including in Burma and India itself.
  - ▶ Bose's famous slogans, **"Jai Hind"** and **"Dilli Chalo,"** became rallying cries for the INA and the Indian freedom movement.
  - ▶ On October 21, 1943, Bose declared the formation of the **Azad Hind Government** in Singapore, with the INA fighting alongside Japanese forces.

## JALLIKATTU BULL TAMING FESTIVAL

### Context:

During the Jallikattu bull-taming festival in Tamil Nadu, four people tragically lost their lives. The festival, held during Mattu Pongal (the second day of the four-day Pongal festival), is a long-standing tradition where people participate in bull-taming events to celebrate the role of bulls in agriculture and rural life.

### Key Details About Jallikattu:

- Jallikattu is an **ancient sport** that is seen as a celebration of Tamil culture, bravery, and the bond between humans and animals. It involves participants trying to tame bulls in an arena, often risking injury.
- This festival takes place during Mattu Pongal, the second day of the four-day Pongal festival, honoring cattle, which are vital for agriculture and rural livelihoods in Tamil Nadu.

- Bulls like Pulikulam and Kangayam, known for their strength and agility, are specially bred for this sport. These bulls are treated with great care and are revered in some communities.
- **How It Works:** A bull is released into an arena, and participants attempt to grab its hump and hold on for a specific time (usually around 30 seconds), often covering a distance of 15 meters.
  - ▶ If successful, they win prizes such as cash, cars, and tractors.
  - ▶ However, this activity comes with significant risks, and many people get injured or even killed.
- Since 2017, 126 people and 42 bulls have died during Jallikattu events. This year's festival also saw one bull tamer killed, and 75 others injured (30 seriously). Despite safety regulations like limiting bulls to one competition, such tragedies still occur.

### Legal and Social Debate:

- **Legal History:** The legality of Jallikattu has been a controversial issue. In 2014, the Supreme Court banned the sport due to concerns about animal cruelty. However, in 2017, after protests and political pressure, the **Tamil Nadu government passed a law allowing Jallikattu to continue, though the issue remains contested by animal rights groups like PETA.**
- **Animal Welfare Concerns:** Animal rights groups argue that Jallikattu is cruel to the bulls, and the risks to both animals and participants are high. While supporters argue it is a key cultural tradition, the debate continues over whether the sport is worth the human and animal costs.

## DISPUTE OVER PROJECTS UNDER THE INDUS WATERS TREATY (IWT)

### Context

The World Bank-appointed **"neutral expert"** upheld **India's stand** after Pakistan raised several questions in relation to the **Kishenganga and Ratle hydroelectric projects** in Jammu and Kashmir on matters related to the **Indus Water Treaty (IWT)**.

### Background (the dispute):

- India and Pakistan have been in a long-standing disagreement over two hydroelectric projects in Jammu and Kashmir—
  - ▶ **Kishenganga Project (330 MW)** on **Kishenganga river**, a tributary of **Jhelum**.
  - ▶ **Ratle Project (850 MW)** on the **Chenab River**.
- Pakistan has raised concerns over the design of these projects, claiming that they could reduce water flow to **Pakistan's western rivers (Indus, Jhelum, and Chenab)**, which it is entitled to use under the Indus Waters Treaty (IWT) signed in 1960.

## What is Indus Waters Treaty (IWT)?

- **Signed in:** 1960
- India and Pakistan share water from six rivers in the Indus River system: **Ravi, Beas, Sutlej, Indus, Jhelum, and Chenab.**
- The Indus Waters Treaty (IWT) divides the water rights between the two countries:
  - India controls the **three eastern rivers (Ravi, Beas, Sutlej)**
  - Pakistan has unrestricted rights to the **three western rivers (Indus, Jhelum, Chenab).** India can use the waters of the western rivers for hydroelectric power, but it cannot build storage dams on these rivers.



Figure No. 01

## INDIA AND FRANCE MARITIME COOPERATION IN IOR

### Context

India and France have agreed to enhance cooperation on maritime security in the **Indian Ocean Region (IOR)**. They discussed ways to counter threats such as piracy, maritime terrorism, illegal fishing, cyber security threats, and marine pollution.

### Key Points of the Cooperation:

- **Coordinated Surveillance:** Both countries agreed to explore joint efforts for coordinated surveillance in the IOR to address various maritime security challenges.
  - This includes **information sharing** between key centres like:
    - ◆ **Information Fusion Centre-Indian Ocean Region** in Gurugram, India.

- ◆ **Regional Coordination Operations Centre** in Seychelles.
- ◆ **Regional Maritime Information Fusion Centre** in Madagascar.
- **Threats to Maritime Security:** India and France are focused on tackling illicit maritime activities. They also aim to address **hybrid and cyber security threats** and **marine pollution** in the region.
- **Joint Maritime Operations:** The two countries have already conducted **joint patrols** in the past. India's **P-8I maritime surveillance aircraft** was deployed at **French Reunion Island** in the Indian Ocean for joint operations.
- **Combined Maritime Forces (CMF):** France welcomed India's participation in the **CMF**, a multinational naval partnership focused on enhancing maritime security across **3.2 million square miles** of international waters.
  - ◆ India became a **full member** of the CMF in November 2023 after having been an **associate partner** since 2022. This move reflects India's growing commitment to maritime security in the region.
  - ◆ India has a liaison officer posted at **U.S. Central Command (CENTCOM)** in Bahrain, working on CMF cooperation.



### FACT BOX

#### Indian Ocean Region (IOR)

- The Indian Ocean is the **third-largest ocean**, covering an area of **over 70 million square kilometers**.
- It connects **key regions:** the **Middle East, Africa, and South and Southeast Asia** to the rest of the world.
- **Vital Sea Routes:** **40% of the world's oil supply** and **64% of container shipments** pass through this region, making it critical for **energy security** and **international trade**.
- **Strategic Maritime Chokepoints:** The region contains several **key maritime chokepoints** that control the flow of trade and energy supplies:
  - **Strait of Hormuz:** A critical passage for oil shipments.
  - **Malacca Strait:** A major shipping route between the Pacific and Indian Oceans.
  - **Bab el-Mandeb:** A key waterway connecting the Red Sea to the Gulf of Aden.

#### IFC-IOR (Information Fusion Centre - Indian Ocean Region)

- **Information Fusion Centre - Indian Ocean Region** was established in 2018 at Gurugram, Haryana.
- It is an initiative under the **Indian Ocean Naval Symposium (IONS)**.

- **Objective:** Enhance maritime safety and security in the Indian Ocean Region (IOR) as part of India's vision of **Security and Growth for All in the Region (SAGAR)**.
- The IFC-IOR acts as a **collaborative hub** for maritime security, aiming to **improve information sharing, coordination, and timely responses** among nations in the IOR.
- The Centre also hosts **International Liaison Officers (ILOs)** from partner nations (**Australia, France, Italy, Japan, Maldives, Mauritius, Myanmar, Sri Lanka, Seychelles, Singapore, United Kingdom and United States of America.**)
- **IFC-IOR** is central to India's maritime security strategy in the region, facilitating information exchange and coordination.

## SMART CITIES INITIATIVE

### Context

Almost a decade has passed since the Indian government announced the concept of "smart cities" as the new lighthouses of urbanisation. The June 2015 announcement of 100 smart cities aimed to create models of urban development. However, these lighthouses of urbanity have now been relegated to the annals of India's urbanisation history.

### About Smart Cities Mission

- The **Smart Cities Mission**, launched by the Indian government in June 2015, was aimed at developing **100 smart cities** across the country to serve as models of urbanization.
- These cities were meant to integrate **technology and innovation** for better urban living, with a focus on **mobility, waste management, and urban infrastructure**.
- However, after nearly a decade, the initiative has struggled, and many of these cities are far from meeting their goals.

### Key Components of the Smart Cities Plan

- **Pan-City Proposals:** These involved IT-enabled services, such as smart mobility systems and waste management.
- **Area-Based Development (ABD):** Focused on retrofitting existing infrastructure, redeveloping old areas, and creating new greenfield projects (entirely new urban zones).
- **Governance Structure:** The projects were managed by **Special Purpose Vehicles (SPVs)**, which were set up like private companies, bypassing local government authorities. This approach assumed that private management could deliver better results than city councils.

## What Happened in Shimla?

- Shimla was initially excluded from the smart cities list but later included after legal challenges. The city developed a **smart city plan** that included both pan-city and ABD components. The plan included:
  - **Pedestrian crossing improvements** and better **vehicular mobility** on key roads.
  - **Eco-tourism initiatives** like **eco-adventure tourism** and improvements in **stormwater management**.
  - **Redevelopment projects** aimed at replacing old, unsafe buildings with modern, resilient structures.
- The estimated investment for Shimla was around **Rs 2,906 crore**, with funding coming from **Public-Private Partnerships (PPP), municipal bonds, external borrowings, and government schemes**.
- **What Went Wrong?** Despite ambitious plans, the actual outcome has been disappointing:
  - **Funds have been mismanaged:** Only about **24%** of the estimated budget has been spent, with most funds allocated to **ongoing projects** rather than redevelopment.
  - **Traffic issues worsened:** Instead of easing congestion, the traffic situation has **worsened**.
  - **Neglect of non-motorized mobility:** Despite promises, **pedestrian mobility** was largely ignored.
  - **Incongruent projects:** Instead of the promised redevelopment, funds were spent on items like **flower pots worth Rs 2 crore** and the construction of **non-operational escalators** that **obstruct** Shimla's scenic views.

## EIGHTH PAY COMMISSION

### Context

The government has approved the formation of the Eighth Pay Commission for central government employees.

### What is the 8th Pay Commission?

- The Pay Commission is responsible for determining the salaries, allowances, and pensions of central government employees and pensioners.
- It plays a crucial role in setting the financial terms for the workforce of the government.
- The recommendations made by the Pay Commission generally lead to increased salaries and other benefits.
- **Timeline for the 8th Pay Commission:**
  - The 7th Pay Commission was implemented in 2017, and its recommendations were effective until 2026.
  - The 8th Pay Commission will be formed before 2026, and its recommendations are expected to be implemented from January 1, 2026.

### Impact of the 8th Pay Commission:

- The 8th Pay Commission will benefit approximately 4.5 million central government employees and 6.8 million pensioners, including defence personnel.

- ▶ In Delhi alone, about 400,000 employees (including those from the Delhi government) will also be affected.
- ▶ This move is also timed strategically before the Delhi Assembly elections on February 5, which could have political and economic significance.
- ▶ The increased expenditure due to the pay commission is expected to lead to a boost in consumption, stimulating economic growth, just like the 7th Pay Commission did, which resulted in an increase of Rs 1 trillion in expenditure.

- ▶ It enables easier access to bank loans, resolves land disputes, and secures women's property rights, boosting financial inclusion and economic growth.
- ▶ It has improved infrastructure planning and created social stability in rural India.

## SVAMITVA SCHEME

### Context

Prime Minister Narendra Modi distributed around **65 lakh SVAMITVA Property Cards** in over 50,000 villages across 10 States (Chhattisgarh, Gujarat, Himachal Pradesh, Madhya Pradesh, Maharashtra, Mizoram, Odisha, Punjab, Rajasthan, Uttar Pradesh) and 2 Union Territories (Jammu & Kashmir, Ladakh). The event marks a major achievement, the distribution of nearly **2.25 crore property cards** under the SVAMITVA scheme.

### About SVAMITVA Scheme

- **Launched:** 2020 on **National Panchayati Raj Day (April 24)**
- **Survey of Villages Abadi and Mapping with Improved Technology in Village Areas (SVAMITVA) Scheme** is a Central Sector scheme of the **Ministry of Panchayati Raj**.
- It provides a '**Record of Rights**' to village household owners with the issuance of legal ownership cards (Property cards/Title deeds) to the property owners by mapping land parcels using **drone technology and GIS technology**.
  - ▶ The **abadi area** includes inhabitant land, inhabited areas contiguous to Abadi and wadis/basties in rural areas.

### SVAMITVA Scheme Achievements:

- ▶ 3.17 lakh villages have been surveyed, including full coverage in **Madhya Pradesh, Uttar Pradesh, Chhattisgarh, and several Union Territories**.
- ▶ **92% of villages have completed drone surveys**, and property cards have been issued in 1.53 lakh villages.
- ▶ States like **Uttar Pradesh, Madhya Pradesh, Haryana, and Uttarakhand** have made significant progress, with some achieving 100% drone surveys and property card preparation.
- ▶ **Over 67,000 sq. km of rural land** has been surveyed, valued at **Rs. 132 lakh crore**.

### Impact on Rural India:

- ▶ The scheme helps rural families get a legal record of their property (Property Cards), which strengthens land rights and governance.

### National Panchayati Raj Day

- The 73rd Amendment Act of 1992 was enacted on April 24, and in that honour, this day is celebrated every year in India.
- India's three-tiered administrative structure is known as the Panchayati Raj system.
- It is a decentralised formation of governance, where local bodies or Gram Panchayats are empowered through self-governance and independence in decision making.

## NATIONAL BROADBAND MISSION (NBM) 2.0

### Context

The **Department of Telecommunications** launched **NBM 2.0**, an upgraded version of the previous **National Broadband Mission** (launched in December 2019). The **Sanchar Saathi mobile app** (an extension of the existing website) has been also launched.

### Key Goals of NBM 2.0:

#### ▢ Fiber Connectivity Expansion:

- ▶ The mission aims to extend **fiber optic broadband** to **2.7 lakh villages** by **2030** (up from 50,000 currently).
- ▶ **90% of anchor institutions** like **schools, anganwadis, health centers, and panchayat offices** should be connected by fiber by 2030.

- **Increase Rural Subscribers:** The target is to raise the share of rural broadband subscribers from **45% to 60%** by 2030.

- **Improving Fixed Internet Speeds:** Ensuring **faster internet speeds** in rural areas and improving **wireless connectivity**.

- **Right of Way and 5G:**

- ▶ The Mission focuses on making it easier to **lay telecom infrastructure** by facilitating **Right of Way** (permissions for laying fiber and telecom towers).

- ▶ Efforts will be made to improve **5G connectivity** by developing better street infrastructure for telecom equipment.

- ▶ **Collaboration between Union and State Governments** is necessary to streamline **permissions** for telecom infrastructure.



**FACT BOX**

**National Broadband Mission 1.0**

- The Mission is part of the **National Digital Communications Policy, 2018**.
- The vision of the Mission is to fast-track growth of digital communications infrastructure, bridge the digital divide, facilitate digital empowerment and inclusion, and provide affordable and universal access of broadband for all.
- Key achievements of NBM 1.0 include:
  - ▶ Expansion of Optical Fiber Cable (OFC) networks to 41.91 lakh kilometers by September 2024.
  - ▶ Growth in telecom towers to 8.17 lakh and broadband subscribers to 941 million.
  - ▶ Resolving major Right of Way (RoW) issues and streamlining processes through the "GatiShakti Sanchar" portal.
  - ▶ Introduction of the "Call Before u Dig" (CBuD) mobile app to protect underground telecom infrastructure.

**Sanchar Saathi Mobile App**

- The **Sanchar Saathi Mobile App** is a user-friendly platform designed to fortify telecom security and empower citizens.
- Sanchar Saathi App is committed to maintaining the security, safety, and trustworthiness of telecom networks for everyone.

**Key features include:**

- ▶ **Chakshu** - Reporting Suspected Fraud Communications (SFC): Users can report suspected calls and SMS using app and directly from mobile phone logs.
- ▶ **Know Mobile Connections in Your Name:** Citizens can identify and manage all mobile connections issued in their name, ensuring no unauthorized usage.
- ▶ **Blocking Your Lost/ Stolen Mobile Handset:** Lost or stolen mobile devices can be swiftly blocked, traced and recovered.
- ▶ **Know Mobile Handset Genuineness:** The app offers an easy way to verify the authenticity of mobile handsets, ensuring users purchase genuine devices.

**BETI BACHAO BETI PADHAO (BBBP)**

**Context**

Prime Minister Narendra Modi marked the 10th anniversary of the **Beti Bachao Beti Padhao (BBBP) initiative**.

**About Beti Bachao Beti Padhao (BBBP) initiative**

- The scheme was launched in 2015 in Panipat, Haryana.
- The flagship initiative was aimed at addressing gender disparities, improving the **Child Sex Ratio (CSR)**, and promoting education for girls.
- Beti Bachao Beti Padhao has partnered with the **Ministry of Skill Development and Entrepreneurship** to promote vocational training for young girls and women.
  - ▶ Initiatives such as 'Khelo India' have also contributed to identifying and nurturing talent in sports among girls.
- The government has integrated **Mission Shakti into BBBP**, which has expanded the scheme's scope, ensuring safety, education, and economic empowerment of women.
- **Significant Achievement**
  - ▶ **Improvement in the sex ratio at birth:** Over the decade, **sex ratio at birth** rose from 918 in 2014-15 to 933 in 2022-23.
  - ▶ **Increased enrolment in secondary education:** In 2014-15, 75.51% of girls were enrolled in secondary education. The numbers have seen a substantial boost, with the **Gross Enrolment Ratio (GER)** increasing from 75.51% in 2014-15 to 79.4% in 2021-22.
  - ▶ **Institutional Deliveries:** The percentage of institutional deliveries surged from 61% in 2014-15 to 97.3% in 2023-24, ensuring safer childbirth.
  - ▶ **Ante-natal Care:** First-trimester ante-natal care registrations rose from 61% to 80.5%, ensuring better maternal health.
- **Challenge:** In FY24, India's **Female Labour Force Participation (FLFP)** stood at **41.7%**, still lower than men's participation. The rate is particularly low in urban areas, with many women engaged in **unpaid domestic work**. To improve this, more opportunities for women to enter formal employment and **care work** as a valid profession are essential.

**Key Concepts**

- **Child Sex Ratio (CSR):** The ratio of female children (under the age of 6) to male children in a population. It is an important indicator of gender bias and societal attitudes towards the girl child.
- **Sex Ratio at Birth:** The ratio of male to female births in a population. A healthy sex ratio reflects gender equity in childbirth and society.
- **Gross Enrolment Ratio (GER):** The total number of students enrolled in a specific level of education (e.g., secondary education) as a percentage of the eligible population for that level. A higher GER indicates greater access to education.

- **Female Labour Force Participation (FLFP):** The percentage of women actively engaged in the workforce, either employed or seeking employment. It is an important measure of gender equality in economic participation.

## NATIONAL HEALTH MISSION (NHM)

### Context

The Union Cabinet approved the continuation of the **National Health Mission (NHM)** for another five years.

### About National Rural Health Mission (NRHM)

- The NHM, launched in 2005 as the **National Rural Health Mission (NRHM)**, aimed to improve public health systems and provide affordable and quality healthcare, especially in rural areas and for vulnerable groups.
- In 2012, the mission expanded to include the **National Urban Health Mission (NUHM)** to address urban healthcare needs, which led to the restructuring of NRHM into the broader **National Health Mission (NHM)**.
- **Achievements:** Over the past decade, the NHM has achieved significant milestones:
  - **Maternal Mortality Ratio (MMR)** declined by 25 per cent, from 130 per 100,000 live births in 2014-16 to 97 per 100,000 in 2018-20.
  - **Infant Mortality Rate (IMR)** dropped from 39 per 1,000 live births in 2014 to around 28 in 2020.
  - **Healthcare Workforce:** Between 2021 and 2022, nearly **12 lakh health workers** joined the NHM.
  - NHM has contributed significantly to reducing the incidence and improving the surveillance of **non-communicable diseases (NCDs)** such as **tuberculosis (TB)**.
    - ◆ India has seen a decline in the incidence of TB, from 237 per 100,000 population in 2015 to 195 in 2023. The mortality rate for TB has also dropped from 28 to 22 in the same period.
  - **COVID-19 Response:** NHM played a pivotal role in the response to the COVID-19 pandemic, utilizing its healthcare facilities and workforce to deliver **over 220 crore COVID-19 vaccine doses** from January 2021 to March 2024.
  - NHM has also overseen the expansion of key programmes, including the
    - ◆ Measles-Rubella Elimination Campaign
    - ◆ Pradhan Mantri National Dialysis Programme
    - ◆ National Sickle Cell Anaemia Elimination Mission

## STUDY RECOMMENDS 179 COMMUNITIES FOR SC, ST, OBC INCLUSION

### Context

In one of the **largest ethnographic studies** conducted by the **Anthropological Survey of India (AnSI)** in collaboration with Tribal Research Institutes (TRIs), **268 denotified, semi-nomadic, and nomadic tribes** have been comprehensively categorized for the first time.

### Key Findings:

- This study, initiated in 2020 and completed by August 2022, was commissioned by a panel formed by **NITI Aayog**. The research aimed to address the long-standing issue of these tribes not being classified under the **Scheduled Castes (SC), Scheduled Tribes (ST), and Other Backward Classes (OBC) categories**, and propose appropriate classifications.
- **Recommendations for Inclusion:** The study has recommended the inclusion of 179 communities in SC, ST, or OBC lists across 26 states and union territories.
    - Out of these, 85 are fresh additions:
      - ◆ 46 for OBC status,
      - ◆ 29 for SC status,
      - ◆ 10 for ST status.
    - Uttar Pradesh had the highest number of additions (19 communities), followed by Andhra Pradesh, Tamil Nadu, Madhya Pradesh, and Rajasthan (8 each).
  - **Corrections and Partially Classified Communities:** Nine communities' categorization was recommended for correction. Many communities, while studied, were found to have already been partially categorized in state lists or central lists for specific states.
  - **"Not Traceable" Communities:** The study found 63 communities (over 20%) as "not traceable". These are communities that have either assimilated into larger groups, changed their names, or migrated to other states or territories.

### Who Are the Scheduled Castes (SCs)?

- Scheduled Castes (SCs) refer to communities in India that have historically faced severe oppression, discrimination, and social exclusion, primarily due to the Hindu caste system.
- These communities were once known as "untouchables" and continue to experience marginalization, though affirmative actions have been introduced to improve their social and economic conditions.

Differences Between Scheduled Castes (SCs) and Scheduled Tribes (STs)		
Feature	Scheduled Castes (SCs)	Scheduled Tribes (STs)
Origin	Caste system, marginalized groups	Indigenous communities with distinct cultural identities
Historical Experience	Social exclusion based on caste (untouchability)	Geographical isolation and cultural distinctiveness
Geographical Distribution	Found across India, with concentrations in the north and south	Mainly found in hilly and forested regions, especially in central and eastern India
Identification Method	Listed castes in the Scheduled Castes Order in the Constitution	Listed tribes in the Scheduled Tribes Order in the Constitution (geographical, cultural, and social factors considered)
Government Support	Reservations in education, jobs, and political representation	Similar to SCs, but with specific programs that cater to their unique needs

Table No. 1

- According to the **Constitution Order of 1950**, only marginalized Hindu communities can be categorized as SCs.
  - They were traditionally outside the four main varnas (**Brahmins, Kshatriyas, Vaishyas, and Shudras**) in the Hindu social hierarchy and were often referred to as "avarnas" (those who don't fit into the varna system).

**Who Are the Scheduled Tribes (STs)?**

- Scheduled Tribes (STs) are indigenous communities that have historically faced oppression, marginalization, and struggle. Like SCs, STs are also categorized as "**avarnas**" but their identity is rooted in their distinct cultural practices, geographical isolation, and social structure.
- STs, also known as **Adivasis**, are the original inhabitants of India, often living in remote and isolated areas. They have distinct languages, customs, and cultures, and are often considered to be at a lower level in the social hierarchy due to their isolated way of life.

(See Table No. 1 above)

**What Are Other Backward Classes (OBC)?**

- Other Backward Classes (OBC) is a term introduced by the **Mandal Commission in 1980**.
- These are castes that fall between the higher varnas (Brahmins, Kshatriyas, Vaishyas) and the marginalized groups (SCs and STs).
- OBCs benefit from affirmative action programs like reservations in education, government jobs, and political representation, but not to the same extent as SCs and STs.

**SURVEY ON EDIBLE OIL CONSUMPTION IN INDIA**

**Context**

The Union Agriculture Ministry has started its first-ever survey to understand the consumption patterns of edible oils in India. The purpose of the survey is to collect data on how people use edible oils, which will help the government make better policy decisions, especially as part of the new National Mission on Edible Oils-Oilseeds (NMEO-Oilseeds).

**Why is this survey important?**

- India is the world's largest consumer and importer of edible oils. However, there is a lack of recent data on how much oil people are consuming and which types of oils they prefer.
- The survey will focus on this gap in information.
- The survey results will help determine which oilseeds should be prioritized under the **NMEO-Oilseeds program**. This program aims to increase domestic production of oilseeds, reducing the dependency on imports.
  - India currently **imports 55-60% of its edible oil**, primarily from countries like **Indonesia, Malaysia, Argentina, Brazil, Russia, and Ukraine**.
  - The **NMEO-Oilseeds mission** plans to increase domestic oilseed production from 39 million tonnes in 2022-23 to 69.7 million tonnes by 2030-31, with an investment of ₹10,103 crore over seven years.
- Current edible oil consumption trends:**
  - India's per capita annual consumption of edible oil** has now crossed 20 kg, which is significantly higher than the recommended limits of 12 kg (by the **Indian Council of Medical Research**) and 13 kg (by the World Health Organization).
  - This rise in consumption is due to factors like rising incomes, urbanization, and changing diets.

## JAWAHARLAL NEHRU PORT AUTHORITY (JNPA)

### Context

Jawaharlal Nehru Port Authority (JNPA) is amongst top global ports and India's largest port by crossing 10+ million TEUs capacity in January 2025 and poised to achieve 10 million TEUs throughput by 2027.

### About JNPA

- The Jawaharlal Nehru Port Authority (JNPA), also known as the Nhava Sheva Port, is one of the premier container-handling ports in India.
- Since its inception on May 26, 1989, JNPA has transformed from a bulk cargo terminal to become the premier container port in the country.
- Currently, JNPA operates five container terminals -- NSFT, NSICT, NSIGT, BMCT and APMT.



### FACT BOX

#### Ports in India

- India hosts **13 major ports** and over **200 minor ports**. **Vadhavan Port (Maharashtra)** has been recently approved as the **13th major port**.
- **Major Ports** handle **95%** of India's trade by volume and **70%** by value.
- **Port Functions:** These ports are crucial for facilitating trade in goods like **petroleum, coal, iron ore, textiles, and automobiles**, and also serve strategic geopolitical roles in global maritime routes.
- **Major Ports in India:**
  - ▶ **West Coast Ports:** Mumbai, Kandla, Mangalore, Jawaharlal Nehru Port (JNPT), Mormugao, Cochin
  - ▶ **East Coast Ports:** Chennai, Tuticorin, Visakhapatnam, Paradip, Kolkata, Ennore
- Major Ports are managed by the **Ministry of Ports, Shipping, and Waterways** at the central level, whereas minor ports are managed by individual state governments.

## OECD GLOBAL TAX DEAL

### Context

Trump administration has decided to withdraw from the landmark **2021 OECD (Organization for Economic Cooperation and Development) Global tax deal**.

### About the Tax Deal:

- The **OECD Global Tax Deal** was negotiated in 2021 and involved **over 140 countries**, including both developed and developing nations.

- It emerged from the **Base Erosion and Profit Shifting ("BEPS") project**, launched in 2013 to combat tax avoidance by multinational corporations.
- The deal aimed to:
  - ▶ Set a **global minimum tax rate of 15%** for large multinational corporations, preventing companies from **shifting profits** to low-tax jurisdictions.
  - ▶ Introduce **Pillar II**, which allows signatory countries to impose **top-up taxes** on U.S. multinationals if their profits are taxed below 15% in their home country. This was a mechanism to ensure that large companies pay a fair share of taxes, regardless of where they are headquartered.
- The agreement also included measures to address **digital taxes** that were seen as disproportionately affecting U.S. tech giants, such as Apple, Google, and Amazon.
- More than 140 countries (including India) have signed up to the Global Minimum Tax deal.

### Implications of U.S. Pullout:

- **Global Tax Coordination:** With the U.S. withdrawing from the deal, it could lead to **uncertainty in global tax coordination**. The U.S. has historically been a key player in international economic agreements, and its absence may reduce the effectiveness of the Global Tax Deal.
- **Impact on U.S. Multinationals:** The withdrawal could benefit **U.S. tech giants** by ensuring that they do not face additional **tax liabilities** in other countries, especially those related to **top-up taxes** under the OECD agreement. These companies would continue to avoid the 15% minimum tax in foreign jurisdictions, potentially reducing their overall tax burden.
- **Impact on India:** India, like other countries, could face challenges in enforcing tax policies on **global digital services**. The U.S. withdrawal from the deal may limit India's ability to apply **top-up taxes** on U.S. multinational corporations operating in India. Additionally, India's proposed **2% equalization levy** on foreign tech giants might come under pressure if other countries align their tax policies with the OECD framework. This could affect India's ability to generate revenue from international tech firms.

## TRAI STEPS UP EFFORTS TO COMBAT SPAM USING TECHNOLOGY

### Context

The **Telecom Regulatory Authority of India (TRAI)** has announced new measures to tackle spam messages and calls, with a focus on improving the existing systems and using new technologies like **blockchain** to ensure better traceability of commercial messages.

### What is TRAI's Role in Fighting Spam?

- TRAI regulates the telecom industry in India, and its main job in this area is to control Unsolicited Commercial Communications (UCC), commonly known as spam.



- Since 2007, TRAI has implemented a **Do-Not-Disturb (DND)** registry, allowing telecom customers to sign up so they don't receive unwanted commercial calls or messages. If someone registers on the DND list, telemarketers are legally required to respect that preference.
  - ▶ What Has TRAI Done So Far?
  - ▶ TRAI developed a **DND app** for customers to set their preferences and file complaints against spam messages. This app allows users to easily block telemarketers.
  - ▶ In 2018, TRAI implemented the **Telecom Commercial Communication Customer Preference Regulation (TCCCPR)**, which introduced stricter rules. Under these regulations, telemarketers who violate DND rules receive warnings, and after multiple violations, they can be blacklisted from sending messages.
  - ▶ Although the DND app faced technical issues and was unavailable for a while in 2022, TRAI worked on improving it and mandated that DND reporting should be available through telecom providers' apps in 2024.

### How Does Blockchain Help in Fighting Spam?

In the fight against spam, TRAI has made **blockchain technology** a key tool. Telecom companies are required to use blockchain to maintain an updated list of approved senders for SMS messages. This list ensures that only verified businesses can send messages to customers.

- Blockchain provides **immutability**, meaning data cannot be tampered with. This technology ensures that every participant in the system has the same, unchangeable data, making it easier to trace spam messages.
- TRAI's 2024 update tightened the rules around message **traceability**. This ensures that telecom companies have a complete record of who sent a message, preventing fraudulent messages or spam from slipping through the system.
- **Other Steps to Combat Spam:** The government has launched several other initiatives to fight spam:
  - ▶ The **Department of Telecommunications (DoT)** has set up the **Sanchar Saathi portal** with a feature called **Chakshu**, where people can report suspected fraudulent calls and messages.
  - ▶ The **Telecom Security Operation Centre (TSOC)** monitors suspicious internet traffic in real-time to identify scams.



#### FACT BOX

##### About TRAI

- The Telecom Regulatory Authority of India (TRAI) is a **regulatory body** set up by the Government of India under **section 3** of the **Telecom Regulatory Authority of India Act, 1997**.
- It is the regulator of the telecommunications sector in India.

## CHANGING UNDERSTANDING OF ANAEMIA

### Context

**Anaemia in India has long been** believed to be primarily caused by **iron deficiency**, but a new study has shown that this view might be too narrow. The study suggests that factors such as **Vitamin B12 deficiency, folate deficiency**, and even **air pollution** might also be contributing to the high levels of anaemia in India.

### Key-highlights of the Study

The study, involving over 4,500 people from 8 Indian states, found that:

- **Iron deficiency isn't the only cause:** Only 9% of the participants had iron-deficiency anaemia.
- A significant portion of the anaemia cases (about 22%) were caused by unknown factors. This could include **Vitamin B12 deficiency, folate deficiency, blood disorders, or environmental issues like air pollution.**

### ◦ Anaemia Prevalence:

- ▶ According to the NFHS-5, anaemia has worsened in India, especially among women and children, even with years of interventions like iron supplementation.
- ▶ **High Anaemia in Some Regions:** In states like Assam, the prevalence of anaemia was very high (50-60%), but iron deficiency was much lower (only about 18%). This suggests other factors, like poor hygiene or malnutrition, could be playing a role in the region.

### What is Anaemia?

- Anaemia occurs when the body doesn't have enough **red blood cells (RBCs)** or **hemoglobin**.
- Hemoglobin is the main protein in red blood cells. It carries oxygen, and delivers it throughout body. It is essential for transporting oxygen to different parts of the body.
- Without enough RBCs or hemoglobin, a person can experience symptoms like **weakness, fatigue, paleness, and dizziness**.
- **Anaemia may be caused by several factors.** The most common nutritional cause of anaemia is **iron deficiency** although deficiencies in **folate, vitamins B12 and A** are also important causes.



#### FACT BOX

##### Government Initiatives to Combat Anaemia and Malnutrition in India

- **Anaemia Mukht Bharat Initiative:** The Indian government has an Anaemia Mukht Bharat (Anaemia-Free India) initiative, which includes:

- ▶ Iron and folic acid supplementation
- ▶ De-worming children
- ▶ Iron-fortified foods in public health programs
- **Mission Poshan 2.0:** Mission Poshan 2.0 focuses on improving maternal nutrition, infant and young child feeding, and treating malnutrition (SAM and MAM). It aims to enhance the health, immunity, and wellness of vulnerable groups.
- **Fortified Rice Initiative:** The government is distributing fortified rice enriched with iron, folic acid, and vitamin B12 through welfare schemes like **TPDS, PM-POSHAN, and ICDS** to combat anaemia and malnutrition.

- **Global Competition:** Countries like the **U.S., Russia,** and **China** are also in active pursuit of Scramjet technology for their **hypersonic missiles**, making this development by India crucial for maintaining technological parity in global defense.
- **Strategic Importance:** The development of **hypersonic missiles** will enhance India's defense capabilities and strategic deterrence, making it a significant player in the global defense landscape.
- **Technological Leadership:** India's achievement in developing cutting-edge technologies like the **Scramjet engine** and the **thermal barrier coating** showcases the country's growing technological prowess in **aerospace and defense**.

## DRDO CONDUCTS SCRAMJET ENGINE GROUND TEST

### Context

The **Defence Research and Development Organisation (DRDO)** has recently achieved a significant milestone in the development of **hypersonic technology**. This breakthrough, involving the successful demonstration of a **long-duration supersonic combustion ramjet (Scramjet)** powered hypersonic technology, has positioned India as a key player in the race for next-generation missile systems.

### About Scramjet Technology:

- A Scramjet is a type of air-breathing engine that can sustain combustion at supersonic speeds (greater than Mach 5, i.e., over 5,400 km per hour) without the need for any moving parts.
- These engines are vital for hypersonic missiles, which are designed to travel at speeds that are more than five times the speed of sound.

### Key aspects of Scramjet engines:

- ▶ **Air-breathing:** Unlike traditional rockets that carry their oxidizer, Scramjets rely on atmospheric air for combustion, making them efficient for high-speed flight.
- ▶ **No moving parts:** Scramjets are unique in that they don't have any moving parts, unlike traditional jet engines, which rely on turbines and compressors.
- ▶ **High-Speed Combustion:** They are designed to work at supersonic and hypersonic speeds (above Mach 5), ensuring efficient combustion and propulsion in such extreme conditions.

### Significance of the Development:

- **Bypassing Air Defence:** Hypersonic missiles, which can achieve speeds greater than **Mach 5**, are difficult to intercept by existing air defense systems. This technology will enable India to develop **next-generation missile systems** with superior strike capabilities.

### Hypersonic Missiles

- **Hypersonic missiles** are a class of advanced weapon systems that travel at speeds greater than **Mach 5**, which is **five times the speed of sound** (around **6,200 km/h or 3,853 mph**).
- These missiles are designed to fly much faster and with more agility than traditional **ballistic missiles**, which makes them a highly effective and difficult-to-intercept weapon in modern defense systems.
- **Key Features of Hypersonic Missiles**
  - ▶ **Speed:** Hypersonic missiles travel at speeds **greater than Mach 5** (5 times the speed of sound), allowing them to reach their targets in a fraction of the time it would take traditional missiles.
  - ▶ **Maneuverability:** Unlike traditional **ballistic missiles**, which follow a **predictable, parabolic trajectory**, hypersonic missiles use **aerodynamic lift** to maneuver within the atmosphere. This means they can change course mid-flight, making them much harder to track or intercept. Ballistic missiles, once launched, follow a fixed path and can only change course after re-entry. Hypersonic weapons, on the other hand, can perform **evasive maneuvers** throughout their flight.
  - ▶ **Boost-Glide Technology:** Most hypersonic missiles utilize **boost-glide**. This glide phase allows the missile to alter its course during flight, further complicating interception efforts.
  - ▶ **Long Range:** Hypersonic missiles can travel distances of **thousands of kilometers**, which is similar to the range of **intercontinental ballistic missiles (ICBMs)**.
  - ▶ **Missile Types:** There are two main types of hypersonic weapons:
    - ◆ **Hypersonic glide vehicles (HGV)** are launched using a rocket. After separating from the rocket, the glide vehicle travels at speeds of **Mach 5** or more towards its target.

- ◆ **Hypersonic cruise missiles (HCM)** use scramjet engines. Scramjets are air-breathing engines designed for speeds above **Mach 5 (over 6,100 km/h or 3,800 mph)**. They compress incoming air and combust fuel at supersonic speeds (faster than the speed of sound, or **Mach 1**), allowing for high-speed, long-range flight. These missiles are fast, maneuverable, and difficult to intercept.

## DISCOVERY OF A SUPERMASSIVE BLACK HOLE DEFYING EXPECTATIONS

### Context

A team of researchers using NASA's **James Webb Space Telescope (JWST)** and the **Chandra X-ray Observatory** has discovered a surprising black hole, named **LID-568**, that could help to understand how supermassive black holes form and grow.

### What Is a Supermassive Black Hole?

- **Supermassive black holes** are huge black holes found at the centers of many galaxies, including our own Milky Way.
- They can be **millions to billions of times** heavier than the Sun.
- For example, the supermassive black hole **Sagittarius A\*** at the center of the Milky Way is about **4.3 million times** the mass of our Sun.

Despite their size, scientists aren't entirely sure how these black holes grow so massive, especially when the universe was still young.

### What Makes LID-568 Special?

- **LID-568** is a **low-mass supermassive black hole** that existed only **1.5 billion years after the Big Bang** (when the universe was around 8 years old in human terms).
- This black hole was found to be feeding (eating matter) at an incredibly **fast rate—40 times faster** than what scientists thought was the upper limit for black holes.
- It's a **"super-Eddington" black hole**, meaning it is pulling in matter at a rate higher than the normal limit.
- **Why Is This Important?** Normally, black holes can only pull in matter until the energy from the material (as it heats up and radiates) pushes back, preventing the black hole from growing any faster. This is known as the **Eddington limit**.
  - ▶ **LID-568** is breaking this rule by feeding at a much higher rate, which has puzzled scientists.
  - ▶ This discovery could change how we think about the growth of **supermassive black holes**, especially how they became so massive in the early universe when there wasn't enough time or matter to feed them for long periods.

## FLAMINGO FESTIVAL 2025

### Context

The Flamingo Festival 2025 concluded at the **Nelapattu Bird Sanctuary**.

### About the Festival

- Since its beginning in **2001**, the festival has become one of India's key eco-tourism events, offering a blend of nature, culture, and conservation.
- It is set against the beautiful backdrop of **Pulicat Lake** and the **Nelapattu Bird Sanctuary**, located in **Andhra Pradesh**.

### About Flamingos

- **Family:** *Phoenicopteridae*
- **Behavior:** Flamingos are **nomadic** birds, meaning they don't have permanent homes and often move across various locations.
- **Social Birds:** They are highly social, often found in large flocks, ranging from a few pairs to tens of thousands.
- **Pink Color:** Flamingos get their pink color from carotenoids found in their food. When they consume food with carotenoids, the pigment is broken down and transferred to their bodies, turning them pink.
- **Habitat:** Flamingos are found in tropical and subtropical regions.
- Flamingo Species in India: India is home to **two species** of flamingos:
  - ▶ **Greater Flamingo** (Larger size, pale pink plumage)
  - ▶ **Lesser Flamingo** (Smaller size, bright pink plumage)

### Nelapattu Bird Sanctuary

- **Location:** Named after the village **Nelapattu** in **Nellore district**, Andhra Pradesh.
- **Habitat:** A wetland that serves as a **breeding ground for migratory water birds**.
- **Symbiotic Relationship:** Farmers in the area have a mutually beneficial relationship with the birds. The **guano** (bird droppings) from the birds acts as a **natural fertilizer** for crops, and in return, the villagers protect the birds, seeing them as "celestial birds."
- **Significance:**
  - ▶ Largest breeding ground for **Grey Pelicans** in **South East Asia**.
  - ▶ Around **1,500 pelicans** breed annually in the sanctuary.
  - ▶ Local communities from nearby areas like **Muchalagunta** and **Mylangam** protect the birds.
  - ▶ The arrival of migratory birds is seen as an indicator of **good rains and healthy crops**.

- Unique Features of Nelapattu Bird Sanctuary
  - ▶ **Forest Type:** The sanctuary has **Southern Dry Evergreen Scrub, Barringtonia swamp forests, Grassland, and wetlands.**
  - ▶ **Flora and Fauna:** The sanctuary supports a wide variety of migratory bird species, contributing to India's rich biodiversity.

## US WITHDRAWS FROM PARIS CLIMATE AGREEMENT

### Context

President **Donald Trump** signed an executive order to withdraw the United States from the **Paris climate agreement** once again, marking the second time he has made this move. This came on the same day he was sworn in for a **second term**.

### What is the Paris Climate Agreement?

- The **Paris climate agreement**, established in **2015**, is an international treaty aimed at fighting climate change by limiting global warming.
- The primary goal is to keep global temperatures from rising **more than 1.5 degrees Celsius** (2.7°F) above pre-industrial levels, with an upper threshold of **2°C** (3.6°F).
- The agreement is **voluntary**, meaning countries set their own targets for cutting greenhouse gas emissions, which are primarily caused by the burning of fossil fuels such as **coal, oil, and natural gas**.
- The Paris agreement aims for countries to make **progressively more stringent commitments** over time, with the next major deadline being **February 2025**, when nations are required to submit new plans to cut emissions. The **Biden administration** had proposed a **60% reduction in U.S. greenhouse gas emissions by 2035** before Trump's action to withdraw.
- Trump's decision mirrors his **2017 announcement** when he first stated the U.S. would exit the landmark climate deal.





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