

# CURRENT AFFAIRS

WEEKLY

WEEK: 2

MAY  
2024

## MAINS ARTICLE

### GS II

- ❑ Taliban Plan Regional Energy Trade Hub
- ❑ Debating Reservation in India
- ❑ SC Upholds State Autonomy in Law and Order
- ❑ Low Organ Donation in India
- ❑ The Socio-Ecological Effects of LPG Price Hikes
- ❑ Civic Polls in Nagaland

### GS III

- ❑ Decline in RBI's Surplus Transfer to the Government
- ❑ Coastal Economy of India
- ❑ India's Remittance Flows Increases
- ❑ I-T Clause Creates Hurdle for MSME Payments
- ❑ Gold Prices Surge Amid Global Uncertainty
- ❑ Carbon Farming

### GS IV

- ❑ Ethical Considerations Surrounding Covishield Vaccine Side Effects

## TERMS OF THE WEEK

## PRELIMS ARTICLE

### HISTORY

- ❑ Mahaprabhu Vallabhacharya
- ❑ Rabindranath Tagore (1861-1941)
- ❑ Sri Madhava Perumal Temple
- ❑ 30 Years after Apartheid

### GEOGRAPHY

- ❑ Swell Waves

### INTERNATIONAL RELATIONS

- ❑ Antarctic Treaty
- ❑ India-Indonesia Relations

### POLITY & GOVERNANCE

- ❑ World Press Freedom Index
- ❑ India's Stricter Pesticide Rules
- ❑ Central Drugs Standard Control Organisation (CDSCO)
- ❑ National Anti-Doping Agency (NADA)
- ❑ Sarna Code
- ❑ D Voters
- ❑ Virtual Touch Education
- ❑ Border Roads Organisation (BRO)
- ❑ Chief Minister's Arrest & Constitutional Provisions

### ECONOMY

- ❑ India become world's 3rd largest Solar Power Generator
- ❑ Payment Aggregator (PA)
- ❑ India-Ghana to link UPI
- ❑ Confidential IPO Filing
- ❑ Passive Exchange-Traded Fund (ETF)
- ❑ Drip Pricing
- ❑ Capital Gain Tax & Interest Income
- ❑ Overview of India's GDP Growth in 2024

- ❑ Tirthahalli Areca

### SCIENCE & TECHNOLOGY

- ❑ Eta Aquariid Meteor Shower
- ❑ China launches Chang'e-6 to far side of the Moon
- ❑ Boeing's Starliner Spacecraft
- ❑ Tactical Weapons
- ❑ Flying Wedge Defence 200B (FWD-200B)
- ❑ Magnetic Resonance Imaging (MRI)
- ❑ Digital House Arrest
- ❑ Mpox Outbreak
- ❑ West Nile Fever
- ❑ Widal Test
- ❑ A(H5N1) clade 2.3.4.4b
- ❑ ISRO successfully tests Pre-Burner Ignition
- ❑ Discovery of Goldene
- ❑ Ukraine's reliance on Nuclear Energy

### ENVIRONMENT

- ❑ Sahyadri Tiger Reserve (STR)
- ❑ Coal Share in India's Electricity Capacity Below 50%
- ❑ Percolation Wells
- ❑ Urban Heat Islands
- ❑ Batillipes Chandrayaani
- ❑ Exotic Plant Species

### LOCATION IN NEWS

- ❑ Shaksgam Valley
- ❑ Ruang Volcano
- ❑ Mullaperiyar Dam
- ❑ Deepest Blue Hole
- ❑ World's Highest Astronomical Observatory
- ❑ Lipulekh, Limpiyadhura, and Kalapani

**GS SCORE**

An Institute for Civil Services  
[www.iasscore.in](http://www.iasscore.in)

## 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.

# Contents

**WEEK - 2 (MAY, 2024)**

	Topics in News	Page No.
<b>INTERNATIONAL RELATIONS</b>	Taliban Plan Regional Energy Trade Hub	02
<b>POLITY &amp; GOVERNANCE</b>	Debating Reservation in India	03
	SC Upholds State Autonomy in Law and Order	04
	Low Organ Donation in India	04
	The Socio-Ecological Effects of LPG Price Hikes	05
	Civic Polls in Nagaland	06
<b>ECONOMY</b>	Decline in RBI's Surplus Transfer to the Government	06
	Coastal Economy of India	07
	India's Remittance Flows Increases	09
	I-T Clause Creates Hurdle for MSME Payments	09
	Gold Prices Surge Amid Global Uncertainty	10
	Carbon Farming	11
<b>ETHICS</b>	Ethical Considerations Surrounding Covishield Vaccine Side Effects	13
	Topics in News	Page No.
<b>HISTORY</b>	Mahaprabhu Vallabhacharya (1479-1531)	16
	Rabindranath Tagore (1861-1941)	16
	Sri Madhava Perumal Temple	16
	30 Years after Apartheid	17
<b>GEOGRAPHY</b>	Swell Waves	18
<b>INTERNATIONAL RELATIONS</b>	Antarctic Treaty	19
	India-Indonesia Relations	19
<b>POLITY &amp; GOVERNANCE</b>	World Press Freedom Index	19
	India's Stricter Pesticide Rules	20
	Central Drugs Standard Control Organisation (CDSCO)	21
	National Anti-Doping Agency (NADA)	21
	Sarna Code	21
	D Voters	22
	Virtual Touch Education	22
	Border Roads Organisation (BRO)	22
	Chief Minister's Arrest & Constitutional Provisions	22
<b>ECONOMY</b>	India become world's 3rd largest Solar Power Generator	23
	Payment Aggregator (PA)	24
	India-Ghana to link UPI	24
	Confidential IPO Filing	25

	Passive Exchange-Traded Fund (ETF)	25
	Drip Pricing	25
	Capital Gain Tax & Interest Income	26
	Overview of India's GDP Growth in 2024	26
	Tirthahalli Areca	27
SCIENCE & TECHNOLOGY	Eta Aquariid Meteor Shower	28
	China launches Chang'e-6 to far side of the Moon	28
	Boeing's Starliner Spacecraft	29
	Tactical Weapons	29
	Flying Wedge Defence 200B (FWD-200B)	30
	Magnetic Resonance Imaging (MRI)	31
	Digital House Arrest	32
	Mpox Outbreak	32
	West Nile Fever	32
	Widal Test	33
	A(H5N1) clade 2.3.4.4b	34
	ISRO successfully tests Pre-Burner Ignition	34
	Discovery of Goldene	34
	Ukraine's reliance on Nuclear Energy	35
ENVIRONMENT	Sahyadri Tiger Reserve (STR)	36
	Coal Share in India's Electricity Capacity Below 50%	36
	Percolation Wells	37
	Urban Heat Islands	38
	Batillipes Chandrayaani	38
	Exotic Plant Species	39
LOCATION IN NEWS	Shaksgam Valley	39
	Ruang Volcano	39
	Mullaperiyar Dam	40
	Deepest Blue Hole	40
	World's Highest Astronomical Observatory	40
	Lipulekh, Limpiadhura, and Kalapani	42

# SECTION

# A

## MAINS ARTICLES

1. Taliban Plan Regional Energy Trade Hub
2. Debating Reservation in India
3. SC Upholds State Autonomy in Law and Order
4. Low Organ Donation in India
5. The Socio-Ecological Effects of LPG Price Hikes
6. Civic Polls in Nagaland
7. Decline in RBI's Surplus Transfer to the Government
8. Coastal Economy of India
9. India's Remittance Flows Increases
10. I-T Clause Creates Hurdle for MSME Payments
11. Gold Prices Surge Amid Global Uncertainty
12. Carbon Farming
13. Ethical Considerations Surrounding Covishield Vaccine Side Effects

## 1. TALIBAN PLAN REGIONAL ENERGY TRADE HUB

**CONTEXT:** The Taliban (who govern Afghanistan) is working with Kazakhstan and Turkmenistan to create a regional energy trade hub in western Afghanistan that would facilitate oil sales from Russia to South Asia. It marks a strategic move by the Taliban to leverage Afghanistan's geographical location and revive its economy through regional energy trade.

### 1. Dimension-Significance of the Agreement

- ▶ **Strategic Location:** Afghanistan's geographical location, situated between **South and Central Asia** and sharing borders with **China and Iran**, makes it strategically positioned for trade routes. Historically, Afghanistan served as a crucial point along the ancient **Silk Road trade route**.
- ▶ **Multi-Modal Services:** It will allow for the development of multi-modal services by consolidating truck shipments in the dry port where they will be sorted and sent along railroads on the **North-South corridor** to sea ports in the **Gulf**,

**Pakistan, and Indian Ocean, towards India.**

- ▶ **Development in Herat Province:** The establishment of a logistics center in **Herat province** holds significance as it can serve as a pivotal link connecting northern regions to South Asia. This infrastructure development has the potential to boost economic activity and trade flows in the region.
- ▶ The trio noted that the **eastern branch of the International North South Transport Corridor (INSTC)** had gained new impetus to become a key route for transporting goods from **Russia and Belarus** through **Kazakhstan and Turkmenistan to Afghanistan, India, and West Asia**.

### 2. Dimension-Implication of the development

This initiative has implications not only for Afghanistan but also for neighboring countries and broader regional dynamics.

- ▶ **Emerging as key player:** The agreement to build a logistics hub signifies the Taliban's efforts to establish Afghanistan as a key player in regional trade, particularly in the energy sector.
- ▶ **Diversification:** By fostering partnerships with neighboring countries like **Kazakhstan and Turkmenistan**, the Taliban seeks to diversify Afghanistan's economy and reduce reliance on external aid.



- ▶ **Benefit for Kazakhstan:** The country is eyeing the development of roads and a railway through Afghanistan to have connections with the Gulf and South Asia. Currently, Kazakhstan's crude oil exports are dependent on logistics in Russia and Russian ports on the **Black Sea**.
- ▶ **Challenges:**
  - Security situation in Afghanistan remains fragile
  - Concerns about the feasibility of infrastructure development projects.
  - Geopolitical rivalries and regional dynamics

### 3. Dimension- Impact on India

- ▶ **Economic Opportunities:** Increased connectivity and trade facilitation could open up new economic opportunities for Indian businesses, especially in sectors such as energy, infrastructure development, and logistics.
- ▶ **Energy Security:** The development could contribute to India's energy security objectives. Access to energy resources from **Central Asia and Russia** via **Afghanistan** could diversify India's energy sources and reduce dependency on traditional suppliers.
- ▶ **Connectivity and Regional Integration:** Enhanced connectivity through the logistics hub could bolster India's efforts towards INSTC.

#### Fact Box: About INSTC

- **Established in:** 2000 in St. Petersburg, by Iran, Russia and India
- It is a **multi-modal transportation**.
- **Purpose:** Promoting transportation cooperation among the Member States.
- This corridor connects **India Ocean and Persian Gulf** to the **Caspian Sea** via **Iran**, then is connected to **St. Petersburg and North European** via **Russia**.
- **There are 13 member of INSTC:** India, Iran, Russia, Turkey, Azerbaijan, Kazakhstan, Armenia, Belarus, Tajikistan, Kyrgyzstan, Oman, Ukraine, Syria and Bulgaria (Observer Member).
- **Kazakhstan-Turkmenistan** route is one of the branches of INSTC.



## 2. DEBATING RESERVATION IN INDIA

**CONTEXT:** India is engaged in a critical discussion regarding the constitutional validity of reservation, particularly concerning religion-based quotas.

### 1. Dimension- Interpretation of Equality:

- ▶ The Constitution emphasizes equity over mere equality, allowing for **special measures** to address historical inequalities to address **inequalities and promote social justice**.
- ▶ **Article 16(4):** Enables the state to provide reservation for backward classes not adequately represented in government services.
- ▶ **First Constitutional Amendment:** Introduced **Article 15(4)** allowing special provisions for socially and educationally backward classes, **SCs, and STs**.
- ▶ **Article 15:** Prohibits discrimination based on religion, caste, sex, race, or place of birth.
  - Reservation is seen as an extension of equality, not an exception, as per Supreme Court's interpretation in **State of Kerala vs N M Thomas (1975)**.
- ▶ **Interpretation of Articles 15 and 16:** Crucial word is 'only,' implying that any group considered weaker under **Article 46** or as a backward class is entitled to special provisions for advancement.
- ▶ The judiciary interprets equality dynamically, allowing for special provisions like reservation to achieve substantive equality.
- ▶ Reservation is seen as an **extension of equality**, aiming to **uplift marginalized groups**.

### 2. Dimension- Muslim Reservation:

- ▶ Reservation for Muslims has been implemented within the **OBC quota** without reducing quotas for **SCs, STs, or OBCs**.
- ▶ Muslim castes have been included in OBC lists based on social backwardness criteria.
- ▶ Some Muslim castes were granted **reservation not solely because of their religion**, but because they were classified as **backward classes**.
- ▶ This reservation didn't diminish quotas for **SCs, STs, or OBCs**; instead, it established a **sub-quota within the OBC category**.
- ▶ **Inclusion by Mandal Commission:** Mandal Commission, like various states, added several Muslim castes to the OBC list.
- ▶ **Panel Recommendations:** Committees like the **Sachar and Misra panels** highlighted the backwardness of Muslims, suggesting reservation measures.

- ▶ Courts have upheld the constitutionality of Muslim reservation, emphasizing social backwardness as a criterion.
  - **Supreme Court ruling in Indra Sawhney (1992)** emphasized that any socially backward group, irrespective of identity markers, qualifies for backward class status if meeting predefined criteria.

The **Supreme Court has held that equality is a dynamic concept** with many aspects and dimensions, and it cannot be “cribbed, cabined and confined” within traditional and doctrinaire limits (**E P Royappa vs State Of Tamil Nadu, 1973**).

- ▶ **State Examples:**
  - **Kerala and Karnataka** have historically provided reservation for Muslims within the OBC category.
  - **Tamil Nadu** introduced a sub-category for backward Muslims within the OBC quota.
  - **Andhra Pradesh and Telangana** proposed reservation for OBC Muslims, facing legal challenges due to lack of proper identification of backwardness.

### 3. SC UPHOLDS STATE AUTONOMY IN LAW AND ORDER

**CONTEXT:** Following a complaint from the State of West Bengal against the Central Bureau of Investigation’s (CBI) “unilateral right” to look into offenses committed by CBI officials within State jurisdiction, the Supreme Court said unequivocally that “law and order is a State subject”. The decision emphasized the division of powers between the central and state authorities.

#### 1. Dimension- State Subject Status of Law and Order:

- ▶ **Constitutional Division of Powers:** The Constitution of India delineates the distribution of powers between the central government and state governments, with law and order falling within the domain of the latter.
- ▶ **Autonomy of State Governments:** States possess the authority to enact laws, maintain public order, and ensure the safety and security of citizens within their jurisdictions.
- ▶ **Supreme Court’s Clarification:** The recent statement by the Supreme Court reaffirms the principle that matters concerning law and order primarily fall under the purview of state governments, underscoring their autonomy and responsibility in this regard.

#### 2. Dimension- Implications of SC’s

#### Assertion:

- ▶ **Clarity on Jurisdiction:** The SC’s clarification provides clarity on the division of powers between the central and state authorities, preventing potential conflicts and ensuring effective governance.
- ▶ **State Government Accountability:** Emphasizing law and order as a state subject highlights the accountability of state governments in addressing issues related to public safety and security.
- ▶ **Role of Central Government:** While law and order is primarily the responsibility of state governments, the central government may intervene in exceptional circumstances, such as maintaining constitutional integrity or combating threats to national security.

#### Fact Box: About Schedule VII

- The Indian Constitution has twelve schedules, the seventh of which is the Seventh Schedule.
- The Center and the State share the Legislative subjects listed in the Indian Constitution’s seventh schedule.
- **Three lists are used for the division:** List I is the Union list, List II is the State list, and List III is the Concurrent list.
- One such article is **Article 246** of the Indian Constitution, which is located in the 7th schedule. The legislative authority of the Union and the State are defined under this article. The State List, which was formerly composed of 66 articles, is contained in the seventh schedule of the Indian constitution.
- Three lists are used by **Article 246** to categorize the topics covered by laws passed by State legislatures and Parliament. They are as follows:
  - ▶ List I – **Union List**
  - ▶ List II – **State List**
  - ▶ List III – **Concurrent List**

### 4. LOW ORGAN DONATION IN INDIA

**CONTEXT:** The Union health ministry has instructed states and union territories (UTs) to identify and track cases of brain stem death (BSD) in intensive care units (ICUs) in order to expedite cadaver organ donations.

#### 1. Dimension- Challenge for low organ donation rate

- ▶ Despite the large number of possible BSD cases, the government feels that a major obstacle to India’s poor organ donation rate is the insufficient identification and certification of these cases.
- ▶ **Additional problems include**
  - a lack of knowledge regarding organ donation



- false beliefs about the procedure
- infrastructure problems
- ▶ National Organ and Tissue Transplant Organization (NOTTO) has only 250 hospitals registered with it.

## 2. Dimension- Laws governing organs donation

- ▶ The **Transplantation of Human Organs and Tissues Act (THOTA), 1994 (amended in 2011)**, governs organ donation in India.
  - The Act introduced the **idea of brain death to India** and made the **sale of organs for profit a criminal offense**.
  - The latter made deceased organ donation possible by enabling the retrieval of organs from brain-stem dead individuals.
- In addition to regional (ROTO) and state transplant organizations, the government established the **National Organ and Tissue Transplant Organization (NOTTO)** as the premier center for organ procurement and distribution under the Act (SOTTO).
- The latter uses an organ-sharing network to distribute organs among recipients according to each state.

### Fact Box: About National Organ and Tissue Transplant Organization (NOTTO)

- The NOTTO is a **national-level organisation** housed in the **Institute of Pathology (ICMR)**.
- **Mandate:**
  - ▶ to track organ donation and transplantation across the nation
  - ▶ to set up a network for organ distribution and procurement
  - ▶ to keep an updated national registry
- It was founded under the **Ministry of Health and Family Welfare's Directorate General of Health Services**.

## 5. THE SOCIO-ECOLOGICAL EFFECTS OF LPG PRICE HIKES

**CONTEXT:** India's rural household faces various challenges regarding the adoption of LPG as a cooking fuel, despite government initiatives to promote its use. Most important barrier is "high cost of LPG cylinders". Thus, the reliance increases on the solid cooking fuels like wood and coal. The impact of high cost of LPG is not limited to usage of solid fuels, but it has implications for socio-ecological well-being.

### Challenges with Solid Cooking Fuels:

- ◆ **High refill costs, complicated application processes, lack of doorstep delivery, and ineffective grievance redressal mechanisms** are significant challenges.
- ◆ **Gender norms, systemic factors, and limited awareness** about the benefits of LPG worsen these issues.
- ◆ **Ease of access to fuel sources** determines the choice of cooking fuel.
- ◆ Most households are unfamiliar with the concept of **household air pollution**.

### Socio-ecological effects

- ◆ **Health issues:** Many rural households in India face barriers to adopting LPG due to its high cost, leading to around **750 million people** relying on **solid cooking fuels like wood, dung, coal, and charcoal**. However, these fuels pose health risks and have socio-economic and environmental impacts.
- ◆ **Economic constraints:** Despite having LPG connections, many households still resort to using fuelwood due to economic constraints.
- ◆ **Socio-ecological crises:** The rising price of LPG could lead to socio-ecological crises in areas where alternatives to fuelwood are scarce.
- ◆ **Climate Change:** Solid fuel combustion releases greenhouse gases and particulate matter, contributing to climate change and local air pollution, exacerbating environmental challenges.
- ◆ **Social Inequity:** LPG price hikes disproportionately affect marginalized communities and exacerbate social inequalities, as they may lack the financial resources to cope with increased fuel costs.
- ◆ **Sustainability Challenges:** LPG price hikes may hinder efforts to promote clean cooking solutions and achieve sustainability goals, undermining progress towards environmental conservation and public health improvement.
- ◆ **Equity Perspective:** LPG price hikes may exacerbate disparities in access to clean cooking fuels, particularly impacting women and economically weaker sections of society.

### Recommended Measures:

- ◆ **Conduct awareness campaigns** at household and community levels to educate people about the health risks of using biomass fuels and the benefits of switching to LPG. These campaigns should involve self-help groups and other social networks.
- ◆ **Explore flexible payment options**, such as installment payments for LPG cylinders, through existing self-help group networks and local banking systems.
- ◆ **Take urgent action to make LPG more affordable** for deserving sections of society, both in rural and urban areas.

- ◆ Consider electric and solar cooking as potential transitional steps in the journey towards cleaner cooking solutions.

#### Fact Box:

#### Government Initiatives to Promote LPG:

- The government has introduced several schemes to encourage the use of LPG, such as the
  - ▶ Rajiv Gandhi Gramin LPG Vitrak scheme
  - ▶ 'PAHAL' scheme for direct benefit transfers
  - ▶ Pradhan Mantri Ujjwala Yojana (PMUY)
- Despite these efforts, the price of LPG in India remains high compared to other countries.

#### Pradhan Mantri Ujjwala Yojana (PMUY)

- Since its launch in 2016, the Pradhan Mantri Ujjwala Yojana (PMUY) has helped increase access to LPG for low-income households.
- The scheme provides LPG connections, a gas stove, and a 14.2 kg cylinder to deprived households.

## 6. CIVIC POLLS IN NAGALAND

**CONTEXT:** Nagaland's Urban Local Bodies (ULBs) elections were stalled for 20 years due to opposition to the reservation of 33% of wards for women. Previous attempts to hold elections faced strong protests and violence.

### Background: Women's Reservation in Nagaland

- ◆ **Legal Battle:** Nagaland resisted implementing 33% reservation for women in municipalities and town councils, mandated by **Article 243 T (3)** of the Constitution.
  - ▶ **Naga Mothers Association and People's Union for Civil Liberties (PUCL)** fought a 15-year legal battle to enforce the constitutional provision.
- ◆ **Obstacles:** Nagaland's government and prominent sections of **Naga society** opposed reservation, citing **cultural customs and constitutional provisions**.
- ◆ The tribal bodies argued that women have traditionally not been part of decision-making bodies in **Naga customs**.
- ◆ According to them, allowing reservation for women would violate special provisions granted to the state under **Article 371A of the Constitution**.
- ◆ In 2016, Supreme Court intervened, stayed the **High Court's order**, and revived the directive to hold elections within one month.

- ◆ State government, along with civil society groups, initiated violent protests against the reservation.
- ◆ SC bench, led by Justice Kaul, expedited the case in 2023, finally mandating elections to be held by June 2024.

#### Fact Box: Article 371A of the Constitution

- The provision states that "no Act of Parliament would apply under the Legislative Assembly of Nagaland by a resolution decides in respect of Naga customary laws and procedures, administration of civil and criminal justice, ownership and transfer of land, land and social practices".

### UPSC PYQ

- Q. "The reservation of seats for women in the institution of local self-government has had a limited impact on the patriarchal character of the Indian political process." Comment (2019)

## 7. DECLINE IN RBI'S SURPLUS TRANSFER TO THE GOVERNMENT

**CONTEXT:** The Reserve Bank may give the government a smaller dividend for FY 2023–2024 than the massive Rs 87416 crore paid out the year before. This decline in surplus transfer warrants a closer examination of the underlying causes and its implications for both monetary and fiscal policy.

### 1. Dimension- Reason behind decline in Income

- ▶ **Lower commission income from forex sales:** The central bank sold fewer dollars in comparison to the preceding year.
  - **Factor responsible:** This decline in **forex transactions** can be attributed to various factors, including **changes in global economic conditions, fluctuations in currency exchange rates, and shifts in trade dynamics**.
- ▶ **Accelerated growth of RBI's balance sheet during the fiscal year.** This expansion necessitated **higher provisioning**, thereby **reducing the available surplus for transfer to the government**.
  - **Factor responsible:** The expansion of RBI's balance sheet could be attributed to several factors, including **monetary policy interventions** aimed at stabilizing financial markets, **liquidity management measures**, and responses to **economic shocks**.

## 2. Dimension- Implications of the reduced surplus transfer

- ▶ **Impact on Planning:** From a fiscal perspective, it may pose challenges for the government’s budgetary planning and expenditure allocation.
- ▶ **Impact on public spending:** It could necessitate adjustments in fiscal policies, potentially impacting public spending on critical sectors such as healthcare, education, and infrastructure development.
- ▶ **More debt:** A lower surplus transfer may exert upward pressure on the government’s fiscal deficit, thereby influencing debt dynamics and borrowing costs.
- ▶ The reduced surplus transfer underscores the importance of maintaining a delicate balance between financial stability objectives and fiscal considerations. While the RBI plays a crucial role in supporting economic recovery and maintaining price stability, the constraints on surplus transferability highlight the need for prudent financial management and policy coordination.

### Fact Box: RBI’s Surplus Transfer

- The Reserve Bank of India (RBI) transfers its surplus to the government annually.
- The RBI’s surplus is typically transferred to the government after necessary deductions are made for various reserves, including the **Contingency Fund and Asset Development Fund**.
- This surplus is generated from its earnings minus expenditures.
  - ▶ **Surplus distribution policy:** The Jalan Committee recommended a surplus distribution policy that follows the realised equity maintained by the RBI. It gave a range of 5.5-6.5% of RBI’s balance sheet for Contingent Risk Buffer.
- The surplus is transferred to the government, in accordance with **Section 47 (Allocation of Surplus Profits) of the Reserve Bank of India Act, 1934**.
- As the RBI is owned by the government, any surplus it generates belongs to the government.

RBI’s Earnings	RBI’s Expenditure
<ul style="list-style-type: none"> <li>• Open market operations</li> <li>• Interest received from (bonds, treasury bills, top-rated securities, and deposits)</li> <li>• Interest on its holdings of local rupee-denominated government bonds</li> <li>• Interests on lending to banks (overnight).</li> <li>• Dealings in the foreign exchange market</li> </ul>	<ul style="list-style-type: none"> <li>• Printing of currency notes</li> <li>• Staff Expenditure</li> <li>• To banks for undertaking transactions on behalf of the government across the country</li> <li>• To primary dealers, including banks, for underwriting some of these borrowings.</li> </ul>

## UPSC PYQ

**Q. In the CONTEXT of Indian economy, Open Market Operations’ refers to- (2013)**

- (a) borrowing by scheduled banks from the RBI
- (b) lending by commercial banks to industry and trade
- (c) purchase and sale of government securities by the RBI
- (d) None of the above

**Solution: (c)**

## 8. COASTAL ECONOMY OF INDIA

**CONTEXT:** While maritime security and geopolitics (Indo-Pacific, rules-based international order) have dominated discussions in recent time, there’s a need to prioritize economic development, particularly through harnessing the potential of the Blue Economy (BE).

### Contribution of blue economy to economy

- ◆ India is the **second-largest fish-producing country** in the world, with a coastline spanning 7,517 kilometers **across nine coastal states and 1,382 islands**.
- ◆ Nearly 250 million Indians live within a distance of 50 km from the coastal areas of India.
- ◆ Its maritime industries include **trade, shipbuilding, and cruise tourism, generate significant economic output**.
- ◆ It provides employment opportunities for the approximately 4 million people.
- ◆ The **12 largest ports in India**, along with **187 smaller ports**, handle almost **1,400 million tons of cargo yearly**; by volume, maritime routes account for **95% of all trade in the country**.
- ◆ India’s fish production is only **6% of global production**, and its contribution is only **1% to the national GDP**.
- ◆ India’s blue economy supports almost **95 per cent** of all businesses in the country through transportation, and it’s estimated worth is around **4 per cent of the country’s GDP**.
- ◆ India’s **Exclusive Economic Zone** of over **2 million square kilometres** has a bounty of living and non-living resources with significant recoverable resources such as crude oil and natural gas.
- ◆ Blue Economy is intrinsically linked to the following SDGs:
  - ▶ **SDG 14-** conserving and using oceans, seas, and marine resources for sustainable development

- ▶ **SDG 13** - Climate Action
- ▶ **SDG 6** - Clean Water
- ▶ **SDG 7** - Clean and Renewable Energy.

### EMERGING SECTORS OF THE BLUE ECONOMY:

- Ocean State Forecasting
- Ocean Resources – Living and Non-living
- Coastal Zone Management
- Coastal and Ocean Environment
- Mangroves and Coral Reefs
- Optimum Ship Routing, Navigation
- Climate Change and Simulation Modelling
- Warming Oceans and Sea level rise

### BLUE ECONOMY SECTORS

- Aquaculture
- Coastal and Maritime tourism
- Marine biotechnology
- Renewable energy
- Mineral resources
- Maritime transport
- Fisheries
- Shipbuilding and repair
- Offshore Oil & Gas

### India's measures to strengthen its blue economy

- ◆ The goal of the **Global Maritime India Summit** and the **G20** are to foster a blue economy with an emphasis on green ports, sustainable infrastructure, cruise tourism, and international investments.
- ◆ **Draft National Policy for Blue Economy** was unveiled in 2021 with the goals of preserving marine biodiversity, enhancing the GDP contribution of the ocean economy, and improving the quality of life for coastal people.
- ◆ **Deep Ocean Mission** was established in 2021 to create technology such as underwater robotics and manned submersibles in order to **extract both living and non-living resources from the deep ocean**.
- ◆ **Maritime India Vision, 2030 (MIV 2030)** was unveiled

with the goal of accelerating the maritime sector's ten-year growth while emphasizing the establishment of an environmentally sound and sustainable maritime sector.

- ◆ India launched its first **Marine Spatial Planning framework** in Puducherry in collaboration with Norway under the **Indo-Norway Integrated Ocean Initiative** to minimise conflicts between economic sectors.
- ◆ **Sagarmala Project:** The Sagarmala project is the strategic initiative for port-led development through the extensive use of IT enabled services for modernization of ports.
- ◆ **O-SMART:** India has an umbrella scheme by the name of O-SMART which aims at regulated use of oceans, marine resources for sustainable development.
- ◆ **Integrated Coastal Zone Management:** It focuses on conservation of coastal and marine resources, and improving livelihood opportunities for coastal communities etc.
- ◆ **National Fisheries Policy:** India has a National Fisheries policy for promoting 'Blue Growth Initiative' which focuses on sustainable utilization of fisheries wealth from marine and other aquatic resources.

### Challenges faced by Blue economy

- ◆ **Climate change, pollution, overfishing and inadequate regulatory frameworks** are the major issues.
- ◆ **Natural Disasters: Coastal communities** in India face significant challenges from natural disasters exacerbated by climate change.
- ◆ **Decline of oceans:** Given the current state of **decline of world oceans**, the increase in development efforts could further deteriorate the situation.
- ◆ **Erratic monsoons and warming tropical waters** have already endangered these livelihoods.
- ◆ **Marine debris** (bottles, rubber, household items, and plastic bags), carries along with it a large number of invasive species to the Indian shores, thus becoming a new source of threat to the livelihood of the locals.

## 9. INDIA'S REMITTANCE FLOWS INCREASES

**CONTEXT:** India emerged as the global leader in remittances, receiving over USD 111 billion in 2022, surpassing the USD 100 billion milestone. The International Organisation for Migration's (IOM) World Migration Report 2024 highlighted India's prominence as both a remittance recipient and origin of international migrants.

**Key Points:**

- ◆ **Remittance Receipts:** India topped the list of remittance recipient countries, with significant inflows from countries like the **United Arab Emirates, the United States, and Saudi Arabia**. The country's remittance inflows exceeded USD 111 billion in 2022.
- ◆ **Migration Statistics:** India was noted as the origin of the largest number of international migrants globally, with approximately 18 million migrants, accounting for 1.3% of the total population.
  - ▶ Additionally, India ranked 13th as a destination country for immigrants, with 4.48 million immigrants.
- ◆ **Migration Corridors:** Major migration corridors included India - United Arab Emirates, India - US, India - Saudi Arabia, and Bangladesh - India, driven primarily by labor migration from the subregion.
- ◆ **Risks Faced by Migrant Workers:** Financial exploitation, indebtedness, migration costs, xenophobia, and workplace abuses.
- ◆ **High Migrant Labor Sectors:** Construction, hospitality, security, domestic work, and retail, reflecting the diverse nature of migrant employment.
- ◆ **Factors accelerating growth in remittances:** Educated Indian diaspora, proficiency in English, skills, increased demand for labour due to higher oil prices, and others.

**Significance of Remittances for India's Economy**

- ◆ Remittances play a crucial role in India's economic landscape, accounting for a significant portion of the GDP and serving as a vital buffer for the external sector. Additionally, remittances bolster India's forex reserves, stabilize the rupee, and fuel consumption-driven economic growth.
- ◆ **Macro-Economic Cushion:** Remittances contribute approximately 3% of India's GDP, serving as a substantial source of external financing. During periods of trade deficit widening, remittances provide a vital cushion, stabilizing India's external sector amidst global economic challenges.
- ◆ **Stability for Current Account:** As the second-largest source of external financing after service exports, remittances play a pivotal role in maintaining stability in India's current account. By bolstering forex reserves, they help the Reserve Bank of India (RBI) safeguard the rupee against excessive volatility.
- ◆ **Boosting Purchasing Power:** Remittances enhance people's purchasing power, driving consumption in the domestic market. This increased demand stimulates economic activity, contributing to overall growth in the economy.
- ◆ Furthermore, India's adoption of modern fintech tools like **UPI linkages facilitates** faster and cheaper remittance transactions for Non-Resident Indians (NRIs). This technological advancement attracts more NRI investments, further strengthening India's economic resilience.

**Fact Box: World Migration Report**

- **Released by:** International Organization for Migration (IOM)
- The World Migration Report presents data and information on human migration together with analysis of complex and emerging migration issues.
- It is released **biennially**.
- India became a **member state of IOM in 2008**.

**UPSC PYQ**

**Q. In the CONTEXT of India, which of the following factors is/are contributors to reducing the risk of a currency crisis? (2019)**

1. The foreign currency earnings of India's IT sector
2. Increasing the government expenditure
3. Remittances from Indians abroad

**Select the correct answer using the code given below.**

- (a) 1 only      (b) 1 and 3 only
- (c) 2 only      (d) 1, 2 and 3

**Solution: (b)**

**10.I-T CLAUSE CREATES HURDLE FOR MSME PAYMENTS**

**CONTEXT:** In the Budget of 2023-24, a new provision was introduced in the Income-Tax Act to ensure timely payments to micro, small, and medium enterprises (MSMEs). However, this provision has led to unintended consequences, with large companies opting to cancel orders with registered MSMEs and instead placing them with unregistered ones. This has raised concerns among MSME associations and prompted the Union MSME Ministry to seek solutions from industry stakeholders.

**1. Dimension- Impact on MSMEs:**

The new provision, aimed at securing **timely payments for MSMEs**, has created challenges for both MSMEs and large corporations.

- ▶ **Order cancellation:** MSMEs have reported cancellations of orders and pressure to cancel their MSME registration to compete with unregistered entities.
- ▶ **Financial losses and competition:** The scheme, though well-intentioned, has resulted in negative outcomes, as MSMEs face financial losses and

competition from unregistered counterparts.

- ▶ **De-registration:** Many smaller entities are choosing to deregister themselves to avoid losing business to unregistered competitors. This has further exacerbated the challenges faced by MSMEs, forcing them to adapt to survive in the market.
  - As per MSME Ministry's data, **2.28 crore MSMEs** registered during July 1, 2020 to January 30, 2024 on **Udyam portal**, while **1.28 crore micro enterprises** registered on the **Udyam Assist Platform** during January 11, 2023 to January 30, 2024.
  - As on January 30 2024, around 35,396 MSMEs cancelled their **Udyam registration** due to **shut down of business** during July 1, 2020 to January 30, 2024.
- ▶ **Tax liabilities:** The payment timelines mandated by the new provision are unrealistic. The disallowance of expenditure due to delayed payments has increased tax liabilities for large corporations, impacting their dealings with MSMEs.

## 2. Dimension- The right approach to solve the issue

- ▶ The government should reconsider the timelines and extending them to at least the time of filing returns.
- ▶ While some industry associations advocate for no course correction from the government, others suggest options like **mandatory bill discounting** and extension of payment timelines to address the challenges faced by MSMEs.
- ▶ Overall, the implementation of the new tax provision has inadvertently created challenges for MSMEs, necessitating stakeholder engagement and potential policy adjustments to ensure the sustainability of MSMEs in the market.

### Fact Box:

- **New clause introduced: Section 43B (h)**
- **Section 43B(h)** of the **Finance Act 2023** permits payments to **Micro and Small Businesses** to be deducted within the designated timeframe.
- Simply put, it permitted larger corporations to deduct payments made to MSMEs only after such payments were received.
- Otherwise, larger businesses could have to pay more in taxes since they could not deduct some expenses from their income.
- **Objective:** This promotes timely payment and helps with working capital problems.
- **Applicability:** 2024–2025 assessment year

### UPSC PYQ

- Q. Faster economic growth requires increased share of the manufacturing sector in GDP, particularly of MSMEs. Comment on the present policies of the Government in this regard. (2023)**

## 11. GOLD PRICES SURGE AMID GLOBAL UNCERTAINTY

**CONTEXT:** Gold prices have been reaching record highs, with spot gold rising from USD 2000 per ounce a year ago to USD 2294 per ounce now, a 14% increase.

**Causes of Surge:** Factors like trade tensions, financial conflicts among global powers, high interest rates in advanced economies, and ongoing wars, particularly in the Middle East, are driving this surge in gold prices.

### 1. Dimension- Gold as a Safe Haven Investment

- ▶ **Historical Resilience:** Gold has historically been prized for its scarcity and intrinsic value, making it resilient during economic instability, geopolitical crises, and market downturns.
- ▶ **Investor Preference:** Investors turn to gold as a "safe haven" asset during uncertain times due to its stability and tendency to maintain or appreciate in value over time.
- ▶ **Equity Market Influence:** Record equity market valuations indirectly drive demand for gold as a portfolio diversifier, with institutional investors, retail investors, and central banks globally increasing their gold purchases.
- ▶ **Interest Rate Dynamics:** Institutional investors anticipate potential interest rate cuts by the U.S. Federal Reserve, leading to increased gold acquisitions.
- ▶ **Rationale for Gold Holdings:** Gold serves as a stable asset during financial crises, offering stability during currency volatility and market turbulence.

### 2. Dimension- Global Trends in Gold Acquisition

- ▶ **Diversification Strategy (reduced reliance on dollars):** Central banks worldwide are accumulating significant quantities of gold to diversify their foreign exchange reserves, reducing reliance on the U.S. dollar.

- ▶ **China's Strategy:** China has been on a continuous gold buying spree to diversify its reserves away from the dollar and hedge against **currency depreciation**.
- ▶ **India's Resurgence:** India has seen an increase in gold purchases, with the Reserve Bank of India (RBI) adding significant amounts to its reserves in recent years.
- ▶ **Overall Gold Reserves:** The United States leads in gold reserves, followed by **Germany, Italy, France, and the Russian Federation**. India ranks **ninth in terms of gold reserves** held by a country.
  - Overall, the RBI currently holds 822 tonnes of gold, which accounts for 8.98% of the entire forex reserves, as per the World Gold Council.

**Fact Box:**

**Government Gold Schemes**

- **Gold Monetisation Scheme (GMS), 2015:** Under the Gold Monetization Scheme, the nation's institutions and households contribute gold to be used more productively and, eventually, to lessen the country's dependency on gold imports.
- **Sovereign Gold Bond (SGB):** Sovereign Gold Bond Scheme was launched under Gold Monetization Scheme. SGBs are government securities denominated in grams of gold. They are substitutes for holding physical gold.
- **Indian Gold Coin Scheme (IGC):** It was launched to reduce import of foreign minted gold bullion or coins.

**World Gold Council**

- **Founded in:** 1987
- **Headquarters:** London, United Kingdom
- The World Gold Council is the authority on Gold.
- It is an international trade association for the gold industry based in the United Kingdom.

**UPSC MAINS PYQ (Related)**

**UPSC MAINS PYQ (Related)**

**Q. Craze for gold in Indians has led to a surge in import of gold in recent years and put pressure on balance of payments and external value of rupee. In view of this, examine the merits of the Gold Monetization Scheme. (2015)**

**UPSC PYQ**

**Q. What is/are the purpose/purposes of the Government's 'Sovereign Gold Bond Scheme' and 'Gold Monetization Scheme'? (2016)**

1. (1) To bring the idle gold lying with Indian households into the economy
2. (2) To promote FDI in the gold and jewellery sector
3. (3) To reduce India's dependence on gold imports

**Select the correct answer using the code given below.**

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

**Solution: (c)**

**12. CARBON FARMING**

**CONTEXT:** Carbon farming, which integrates regenerative agricultural practices with carbon sequestration techniques, has gained attention due to its potential to address climate change while enhancing soil health and agricultural productivity.

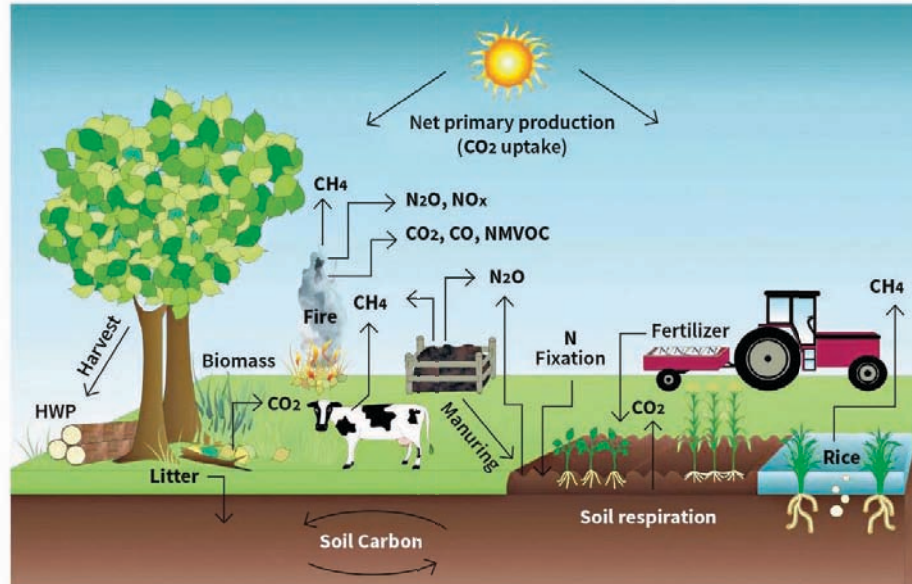
**1. Dimension- Significance of Carbon Farming**

- ▶ **Conservation Agriculture:** Techniques like zero tillage, crop rotation, and cover cropping enhance soil health and minimize disturbance.
- ▶ **Integrated Nutrient Management:** Promotes soil fertility and reduces emissions using organic fertilizers and compost.
- ▶ **Agro-ecology:** Encourages crop diversification and intercropping for ecosystem resilience.
- ▶ **Livestock Management:** Strategies like rotational grazing and waste management reduce methane emissions and increase carbon storage.

**2. Dimension- Challenges to Carbon Farming:**

- ▶ **Geographical Variation:** Effectiveness depends on factors like soil type, water availability, and biodiversity.
- ▶ **Water Scarcity:** Hot and dry regions face challenges due to limited water resources, hindering plant growth and carbon sequestration.
- ▶ **Financial Assistance:** Small-scale farmers may lack resources to invest in sustainable practices, requiring financial support for adoption.
- ▶ **Limited Awareness:** Awareness about carbon farming needs to be increased among farmers and policymakers.

## The process of emitting and removing greenhouse gas emissions in managed farmland



Source: 'Carbon farming – Making agriculture fit for 2030', a study for the European Parliament's committee on Environment, Public Health and Food Safety

- ▶ **Inadequate Policy Support and financial assistance:** Policies need to incentivize and support carbon farming adoption and financial assistance are limited.
- ▶ **Technological Barriers:** Access to appropriate technologies is essential for effective implementation.

- **World Bank Support:** Initiatives like Kenya's Agricultural Carbon Project highlight carbon farming's potential in economically developing countries.
- **'4 per 1000' Initiative:** Launched during COP21, emphasizing the role of carbon sinks in mitigating emissions.

### Fact Box:

#### Carbon Farming Techniques:

- **Rotational Grazing:** It involves controlled movement of livestock to different pastures, enhancing soil health and carbon sequestration.
- **Agroforestry:** Incorporating trees and shrubs into agricultural landscapes, diversifying income streams while sequestering carbon.
- **Conservation Agriculture:** Practices like zero tillage, crop rotation, and cover cropping minimize soil disturbance and enrich organic content.
- **Others:** Integrated Nutrient Management, Agro-ecology, Livestock Management, Land Restoration

#### Global Carbon Farming Initiatives:

- **Carbon Trading:** Implemented in countries like the U.S., Australia, New Zealand, and Canada to incentivize carbon mitigation in agriculture.

### UPSC PYQ

#### Q. What is/are the advantage/advantages of zero tillage in agriculture? (2020)

- (1) Sowing of wheat is possible without burning the residue of the previous crop
- (2) Without the need for the nursery of rice saplings, direct planting of paddy seeds in the wet soil is possible.
- (3) Carbon sequestration in the soil is possible.

Select the correct answer using the code given below:

- (a) 1 and 2 only      (b) 2 and 3 only  
(c) 3 only              (d) 1, 2 and 3

**Solution: (d)**



## 13. ETHICAL CONSIDERATIONS SURROUNDING COVISHIELD VACCINE SIDE EFFECTS

**CONTEXT:** The recent acknowledgment by **AstraZeneca**, the developer and manufacturer of the Covishield Covid vaccine, regarding the possibility of **Thrombosis with Thrombocytopenia Syndrome (TTS)** as a side effect has raised significant ethical concerns. This development has prompted a reassessment of the vaccine's safety and efficacy, highlighting complex ethical dilemmas in public health decision-making.

### 1. Dimension- Ethical Issues Involved

- ▶ **Transparency and Informed Consent:** A key ethical principle in healthcare is the provision of transparent information to patients to facilitate informed decision-making.
  - AstraZeneca's admission underscores the importance of transparently disclosing potential risks associated with vaccines, ensuring individuals can make informed choices about their health.
- ▶ **Risk-Benefit Analysis:** Ethical decision-making in public health requires a careful consideration of the balance between risks and benefits.
  - While Covishield has demonstrated efficacy in preventing Covid-19, the emergence of rare side effects like TTS necessitates a reassessment of the vaccine's risk-benefit profile. Policymakers must navigate the ethical dilemma of balancing potential risks against the benefits of vaccination in controlling the pandemic.



- ▶ **Equitable Access and Distribution:** The ethical principle of justice underscores the importance of equitable access to healthcare resources, including vaccines.
  - Concerns about vaccine safety may exacerbate existing disparities in vaccine uptake, particularly in marginalized communities. Policymakers must ensure equitable distribution of accurate information and vaccine access to mitigate disparities and promote health equity.
- ▶ **Trust and Public Confidence:** Maintaining public trust in vaccination programs is crucial for achieving high vaccine coverage and controlling the spread of infectious diseases.
  - AstraZeneca's acknowledgment of vaccine side effects underscores the importance of transparent communication in building and sustaining public trust.
  - Ethical considerations dictate that policymakers and healthcare providers address concerns openly and honestly to maintain public confidence in vaccination efforts.

### 2. Dimension- Required Measures

- ▶ Addressing these ethical challenges requires a collaborative approach involving policymakers, healthcare providers, and the public to ensure informed decision-making, equitable access to vaccines, and sustained confidence in vaccination programs.
- ▶ By upholding ethical principles, stakeholders can navigate these challenges and promote the collective goal of safeguarding public health amidst the ongoing Covid-19 pandemic.

# SECTION

# B

## QUICK BYTES

1. Mahaprabhu Vallabhacharya (1479-1531)
2. Rabindranath Tagore (1861-1941)
3. Sri Madhava Perumal Temple
4. 30 Years after Apartheid
5. Swell Waves
6. Antarctic Treaty
7. India-Indonesia Relations
8. World Press Freedom Index
9. India's Stricter Pesticide Rules
10. Central Drugs Standard Control Organisation (CDSCO)
11. National Anti-Doping Agency (NADA)
12. Sama Code
13. D Voters
14. Virtual Touch Education
15. Border Roads Organisation (BRO)
16. Chief Minister's Arrest & Constitutional Provisions
17. India become world's 3rd largest Solar Power Generator
18. Payment Aggregator (PA)
19. India-Ghana to link UPI
20. Confidential IPO Filing
21. Passive Exchange-Traded Fund (ETF)
22. Drip Pricing
23. Capital Gain Tax & Interest Income
24. Overview of India's GDP Growth in 2024
25. Tirthahalli Areca
26. Eta Aquariid Meteor Shower
27. China launches Chang'e-6 to far side of the Moon
28. Boeing's Starliner Spacecraft
29. Tactical Weapons
30. Flying Wedge Defence 200B (FWD-200B)
31. Magnetic Resonance Imaging (MRI)
32. Digital House Arrest
33. Mpox Outbreak
34. West Nile Fever
35. Widal Test
36. A(H5N1) clade 2.3.4.4b
37. ISRO successfully tests Pre-Burner Ignition
38. Discovery of Goldene
39. Ukraine's reliance on Nuclear Energy
40. Sahyadri Tiger Reserve (STR)
41. Coal Share in India's Electricity Capacity Below 50%
42. Percolation Wells
43. Urban Heat Islands
44. Batillipes Chandrayaani
45. Exotic Plant Species
46. Shaksgam Valley
47. Ruang Volcano
48. Mullaperiyar Dam
49. Deepest Blue Hole
50. World's Highest Astronomical Observatory
51. Lipulekh, Limpiyadhura, and Kalapani

# GS SCORE

An Institute for Civil Services

We are **MAINS..**



THE MOST EXPERIENCED & SEASONED  
SUBJECT EXPERTS

Access

**400+**  
TOPPERS  
COPIES



Scan QR Code  
to get the copies

Only **SCORE** Matters!

#SCOREmatters



**MAINS  
CLASSES**



**MAINS  
TEST SERIES**



**ETHICS  
& ESSAY**



**MAINS  
OPTIONAL**

■ POL. SCIENCE ■ HISTORY ■ GEOGRAPHY  
■ SOCIOLOGY ■ PUB. AD. ■ ANTHRO. ■ LAW



8448496262



iascore.in

## 1. MAHAPRABHU VALLABHACHARYA (1479- 1531)

**CONTEXT:** Mahaprabhu Vallabhacharya's birth anniversary is observed across the nation on Krishna Paksha Ekadashi of the Vaishakha month of the Hindu calendar as Vallabhacharya Jayanti (May 4, 2024). 2024 marks the 545th birth anniversary of Vallabhacharya.

### About

- ◆ Shripad Vallabhacharya was born in the year 1479 AD in Varanasi to a Telugu Brahmin family.
- ◆ He was the founder of the Indian Pushti sect and a well-known scholar.
- ◆ He had a strong devotion to Lord Krishna.
- ◆ He is regarded as one of the founders of the Indian Bhakti Movement as well.
- ◆ He is one of the five principal Acharyas in Hinduism. The remaining four being
  - ▶ Shankaracharya (788 AD-820AD)
  - ▶ Shri Ramanujacharya (1077 – 1157)
  - ▶ Shri Madhavacharya (1238-1317)
  - ▶ Shri Nimbarkacharya

### Pushti Sect

- The Pushtimarg, another name for Vallabha Sampradāya, is a Vaishnavite sect.
- It was founded by Vallabha around the beginning of the 16th century. Later on, his descendants—especially Viṭṭhalanātha—expanded it.

### UPSC PYQ

**Q. Consider the following statements: (2014)**

1. 'Bijak' is a composition of the teachings of Saint Dadu Dayal.
2. The Philosophy of PushtiMarg was propounded by Madhvacharya.

**Which of the statements given above is/are correct?**

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

**Solution: (d)**

## 2. RABINDRANATH TAGORE (1861-1941)

**CONTEXT:** Rabindranath Tagore's birth anniversary (*Pachishe Boisakh*) is celebrated on May 7, every year. This year marked the 163rd birth anniversary of Rabindranath Tagore.

### About

- ◆ Rabindranath Tagore, known as the 'Bard of Bengal', was a versatile genius born on 7 May 1861.
- ◆ Tagore was a poet, novelist, essayist, philosopher and musician.
- ◆ **Literary Contributions:** Tagore was a prolific writer, composing over 2,000 songs, novels, dance dramas, and short stories. Some of his notable works include "Gitanjali," "Gora," "Ghare Baire," and "Shesher Kobita." Tagore started writing short stories at the age of 16. The famous short stories written by him include **Kabuliwala, Kshudita Pashan and Atithi.**
- ◆ **Musical and Philosophical Influence:** Tagore's compositions encompassed a wide range of themes. Tagore's best works are **Gora, Gitanjali, Rakta Karabi, Ghare Baire, Shesher Kobita, Raja O Rani, Tasher Desh, Dena Paona and Shanchayita.**
- ◆ **Nobel Prize Laureate:** In 1913, Tagore became the first non-European to receive the Nobel Prize in Literature for his profound impact on world literature.
- ◆ **Contribution to National Anthems:** Tagore authored the **national anthem of India (Jana Gana Mana)** as well as **Bangladesh (Amar Shonar Bangla).**

## 3. SRI MADHAVA PERUMAL TEMPLE

**CONTEXT:** Discovery of Ancient Trade Route inscriptions found at the Sri Madhava Perumal Temple in Tamil Nadu suggest the existence of a major trade route connecting the Kongu region in western Tamil Nadu with southern Karnataka and Kerala over a thousand years ago. This temple, submerged in the Bhavanisagar dam, has recently become visible due to a decrease in water levels.

### Historical Insights

- ◆ The inscriptions discovered reveal the presence of a village called **Thuravalur**, dating back over a thousand years, with a temple dedicated to Lord Shiva.
- ◆ This area served as a crucial trade route, allowing traders to cross the **Bhavani and Moyar rivers** to reach

**Wayanad** in Kerala and various places in Karnataka.

- ◆ **Under Hoysala Rule:** The region came under the rule of the **Hoysala dynasty**, particularly King **Veera Ballala III**.
  - ▶ **Madhava Perumal Dhandanayaka**, the general of the army, was appointed to govern the area.
  - ▶ He constructed **Dhandanayaka Fort**, later known as **Danaikan Fort**, alongside the river. The fort, built 680 years ago, was eventually destroyed.
- ◆ **Construction of Sri Madhava Perumal Temple:** Madhava Perumal Dhandanayaka's son, **Veera Siddha Keththaya Dhandanayaka**, built the Sri Madhava Perumal Temple inside the fort. Although the temple's pillars remained intact, parts of the roof and outer wall collapsed due to being submerged for 68 years.
- ◆ **Shift due to Dam Construction:** Construction of the Bhavanisagar dam in 1948 resulted in the relocation of nearby residents and the shifting of temple idols to new locations in 1953. The temple resurfaced periodically as water levels fluctuated.

## 4. 30 YEARS AFTER APARTHEID

**CONTEXT:** South Africa commemorated 30 years since the end of apartheid (on April 27, 1994) and the beginning of its democracy. When Nelson Mandela took office as the nation's first Black president a few days later, apartheid came to an official end.

### About


- ◆ **Background:** From the 1600s when **Dutch settlers** arrived, through the 1700s and 1800s when British colonists arrived, South Africa was a **project that subjected Black people** to laws and practices that were systematically segregationist.
- ◆ **Law enactment:** However, these discriminatory practices were made official and enshrined into law with the **1948 establishment of apartheid**.
- ◆ It rigorously divided people into distinct classes according on the color of their skin.

**SOUTH AFRICA**

## What was apartheid?

Apartheid in South Africa, from 1948 to 1994, was a system of racial segregation against the non-white majority, enforced through political, social and economic discrimination.

**apart·heid** (noun)  
Afrikaans word meaning 'separateness' or 'apart-hood'





**Racial classification**

White
Coloured
Indian
Black

South Africans were categorised into four racial groups that determined where people could live, what jobs they could get, who they could marry and many other aspects of daily life

- **May 1948 - Afrikaner nationalism**  
The National Party, led by DF Malan, wins election and begins to implement apartheid
- **June 1952 - Defiance campaign launched**  
The African National Congress (ANC) and other anti-apartheid groups launch a mass civil disobedience movement
- **March 1960 - Sharville massacre**  
Police kill 69 people at a protest against pass laws that mandated non-whites carry passbooks, severely restricting their movement
- **June 1964 - Rivonia trial**  
Mandela and ANC leaders sentenced to life imprisonment
- **June 1976 - Soweto uprising**  
A student uprising against mandatory Afrikaans instruction sets off widespread protests and violence
- **February 1990 - Nelson Mandela released**  
After 27 years in prison, Mandela is released
- **April 1994 - First democratic election**  
Mandela elected South Africa's first Black president, officially marking the end of apartheid

 Source: sahistory.org.za | April 27, 2024

  
@AJLabs

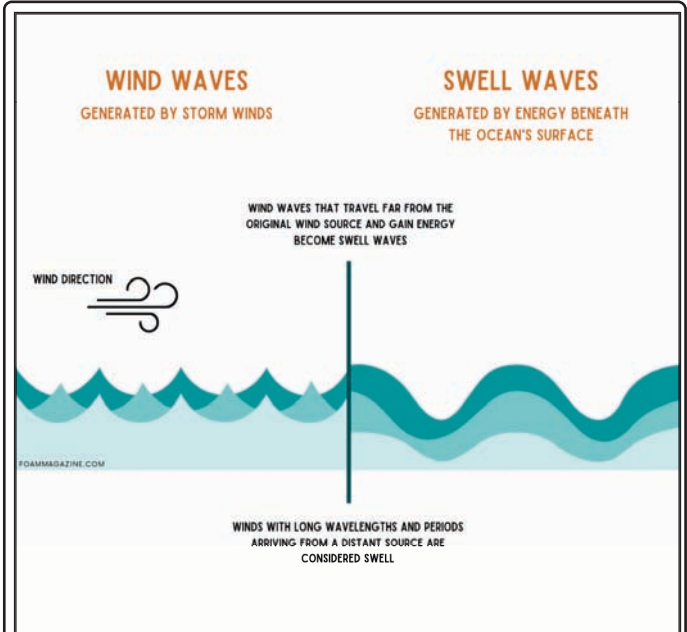
- ◆ It creates four strata into which the policies firmly and violently divided the country's different racial groups.
  - ▶ White
  - ▶ Colored (multiracial)
  - ▶ Indian
  - ▶ Black people
- ◆ Before 1994, black and other people of colour were denied most basic freedoms, not just the right to vote.
- ◆ Finally, the 1994 election changed South Africa and **Apartheid ended.**

## 5. SWELL WAVES

**CONTEXT:** Due to a potentially deadly swell of waves hitting the coastal regions, scientists have recommended a complete stoppage of all recreational activities along the coast and beaches of numerous states on India's eastern and western coasts.

### What is a Swell wave?

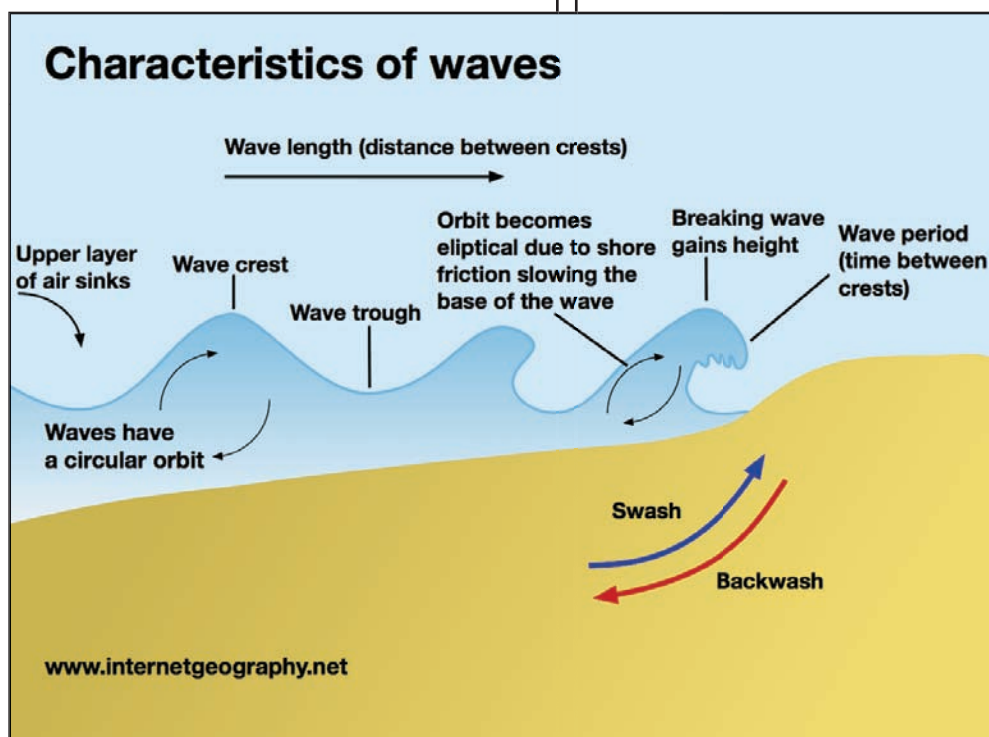
- ◆ The development of **long wavelength waves** on the ocean's surface is known as a **swell**. These are made up of several **waves of surface gravity**.
- ◆ **Formation:** These waves are caused by far-off storms like **hurricanes** or even extended periods of **intense gale winds**.



- ◆ In India, early warning systems like the **Swell Surge Forecast System**, which was introduced by the **Indian National Centre for Ocean Information Services (INCOIS)** in 2020, provide information about the formation of extremely high waves.

### Fact Box: About Waves

- Waves are a **surface disturbance** in the ocean or sea that take the shape of a shifting swell or ridge.
- Unlike tides, which are caused by the moon, waves are caused by the transfer of energy from the wind to the sea.
- The wind causes friction on the sea's surface, which forms waves.



**UPSC PYQ**

**Q. Tides occur in the oceans and seas due to which among the following? (2015)**

1. Gravitational force of the Sun
2. Gravitational force of the Moon
3. Centrifugal force of the Earth

Select the correct answer using the code given below.

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

**Solution: (d)**

**6. ANTARCTIC TREATY**

**CONTEXT:** The 26th Meeting of the Committee for Environmental Protection (CEP 26) and the 46th Antarctic Treaty Consultative Meeting (ATCM 46) will be held in Kochi, Kerala, by the Ministry of Earth Sciences (MoES) in collaboration with the National Centre for Polar and Ocean Research (NCPOR).

**About**

- ◆ The Antarctic Treaty was signed in 1959 and came into effect in 1961.
- ◆ It designates Antarctica as an area committed to environmental preservation, scientific collaboration, and peaceful objectives.
- ◆ More than **56 of the nations are currently parties** to the Treaty.
- ◆ With the intention of advising the ATCM on environmental conservation and protection in Antarctica, the **Committee for Environmental Protection** was founded in 1991 under the auspices of the **Madrid Protocol**, which established the **Protocol on Environmental Protection to the Antarctic Treaty**.
- ◆ India joined the Antarctic Treaty in 1983 as a **Consultative Party**.

**7. INDIA-INDONESIA RELATIONS**

**CONTEXT:** The first-ever India-Indonesia Defense Industry Partnership was held in Jakarta that marked the importance of bilateral defense cooperation in the

75th year of diplomatic ties between the two nations.

**Key-highlights of India-Indonesia Relations**

- ◆ **Formal diplomatic relations established in:** 1951
- ◆ **Trade relations established in:** 1978
- ◆ In 2018, India and Indonesia elevated their relationship to a **“Comprehensive Strategic Partnership”**.
- ◆ The duo also agreed on the **“Shared Vision of India-Indonesia Maritime Cooperation in the Indo-Pacific”**.
- ◆ **Factors fostering peaceful relations:** Geographical proximity, history of collaboration in international forums like the Non-Aligned Movement
- ◆ **Key areas of cooperation:** Energy sector, Technology and medicine, Food security and agriculture.
- ◆ **Exports from India to Indonesia:** motor vehicles and cars, sugar, ships, boats, and floating structures and iron and steel
- ◆ **Imports from Indonesia:** coal, coke, and briquettes, vegetable oils, iron and steel, bulk minerals and ores and cosmetics and toiletries
- ◆ Indonesia is viewed by India as a crucial ASEAN member.
- ◆ **Indo-Indonesia Joint Commission (JCM)** was formed in 2003
- ◆ The **Double Taxation Avoidance Agreement (DTAA)** was endorsed in 2012.
- ◆ **Bilateral Exercises**
  - ▶ The **42nd India-Indonesia Coordinated Patrol (IND-INDO CORPAT)** is scheduled to take place in May.
  - ▶ Military exercise **Garuda Shakti**
  - ▶ Naval exercise **Samudra Shakti**

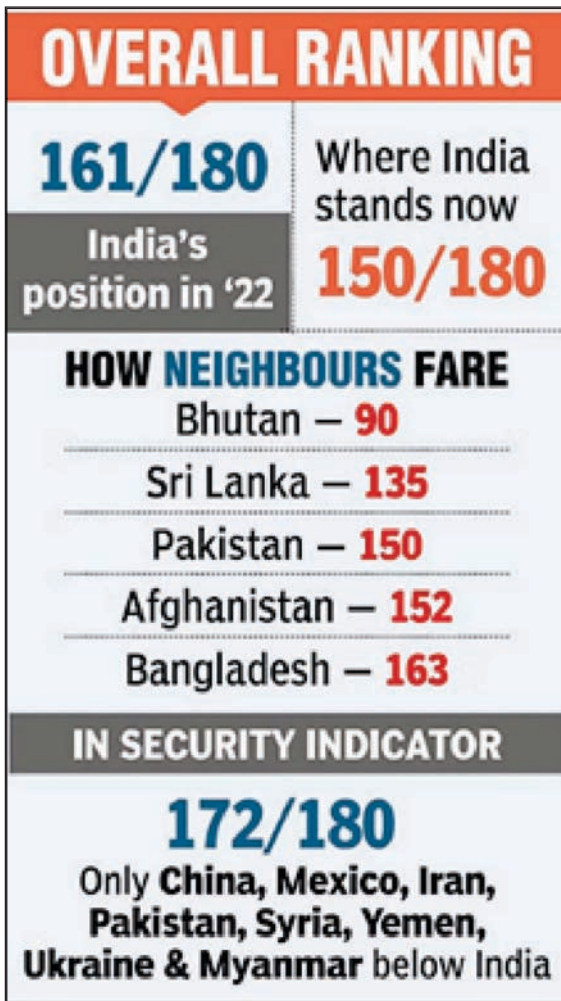
**8. WORLD PRESS FREEDOM INDEX**

**CONTEXT:** The 2024 World Press Freedom Index, released by Reporters Without Borders (RSF), has placed India at 159, two ranks higher than the previous year. This news has sparked discussions about the state of press freedom in the country, particularly in the context of recent developments and government policies.

**Key-findings**

- ◆ **Report Title:** *“Asia-Pacific: press freedom under yoke of authoritarian governments”*
- ◆ **India’s Ranking:** India’s ranking in the Index has improved slightly, but RSF highlights concerns about the deteriorating press freedom situation in the country.

- ◆ **Factor responsible for poor ranking:** Violence against journalists, highly concentrated media ownership, and political alignment.
- ◆ **Media Ownership and Political Alignment:** RSF raises concerns about the influence of prominent business figures, like Mukesh Ambani and Gautam Adani, who have substantial media interests and close ties to the government.
- ◆ **Emergence of "Godi Media":** The report points out the rise of "Godi media," referring to media outlets that mix populism and pro-government propaganda.
- ◆ **Regional Comparisons:** India's press freedom ranking is juxtaposed with those of its neighbors, with some ranking slightly better (e.g., Sri Lanka, Nepal) and others worse (e.g., Pakistan, Bangladesh, Myanmar).
- ◆ **Other findings:**
  - ▶ **Toppers:** Norway and Denmark
  - ▶ **Bottom countries:** Eritrea and Syria
- ◆ **India's take on the index:** India does not agree to the RSF's conclusions for various reasons such as very low sample size, little or no weightage to fundamentals of democracy, adoption of a questionable and non-transparent methodology.



### Fact Box:

#### World Press Freedom Index

- **Released by:** Reporters Without Borders (RSF) since 2002.
- This **annual index** is a crucial advocacy tool built on the idea of state-to-state imitation.
- The Index assigns a ranking to 180 nations and areas based on the degree of journalistic freedom that they offer.
- It assesses the state of media freedom in each nation and region based on factors such as **pluralism, media independence, journalist safety, and the caliber of the legal system.**
- **May 3** is observed as the **World Press Freedom Day**, declared by **United Nations General Assembly**, in honour of the **Windhoek Declaration 1991.**

#### Reporters Without Borders

- **Founded in:** 1985
- **Headquarters:** Paris, France
- It is an **international non-profit and non-governmental organization.**
- **Aim:** safeguarding the right to freedom of information.
- RSF has consultative status at the **UNESCO, United Nations, the Council of Europe, and the International Organisation of the Francophonie.**

## 9. INDIA'S STRICTER PESTICIDE RULES

**CONTEXT:** The **Food Safety and Standards Authority of India (FSSAI)** recently stated that **India has really strict rules** for the **amount of pesticides** allowed in the food.

### About the Rules

- ◆ These rules are called Maximum Residue Limits (MRLs). They set different limits for different foods based on how risky the pesticides are.
- ◆ Recently, India increased the maximum amount of unregistered pesticides allowed in spices and herbs from 0.01 mg/kg to 0.1 mg/kg.
- ◆ Before, the limit was 0.01 mg/kg for any pesticide that wasn't officially approved.
  - ▶ Now, this higher limit of 0.1 mg/kg is only for spices, and it's only for pesticides that aren't officially registered in India.
- ◆ The international standard, set by Codex, allows MRLs for spices and herbs to be between 0.1 and 80 mg/kg, so India's new limit is still quite low compared to that.



**Fact Box: Regulations of Pesticides**

- Pesticides are regulated by the Ministry of Agriculture and Farmers Welfare (MoA & FW) through a committee called the Central Insecticide Board and Registration Committee (CIB & RC).
- They oversee everything about pesticides, from making them to bringing them into the country and using them safely.
- CIB & RC was set up under the Insecticide Act of 1968.
- This committee is in charge of everything related to pesticides in India, like making them, bringing them into the country, and handling them safely.
- When it comes to setting rules about how much pesticide can be in food (called Maximum Residue Limits or MRLs), the Food Safety and Standards Authority of India (FSSAI) looks at data from the CIB & RC.
  - They do this after assessing the risks, considering how much different groups of people eat, and thinking about health concerns.

**10. CENTRAL DRUGS STANDARD CONTROL ORGANISATION (CDSCO)**

**CONTEXT:** The Union government has taken over the authority to issue manufacturing licenses for new drugs intended for export. This move shifts the power from state governments to the **Central Drugs Standard Control Organisation (CDSCO)**, which is **India's primary regulatory body for drugs.**

**Role of CDSCO**

- ◆ CDSCO operates as the Central Drug Authority under the Drugs and Cosmetics Act, 1940.
- ◆ It operates under the Directorate General of Health Services, Ministry of Health & Family Welfare.
- ◆ CDSCO is responsible for various tasks including approving drugs, conducting clinical trials, setting drug standards, regulating imported drugs' quality.
- ◆ Along with state regulators, it is jointly responsible for grant of licenses of certain specialized categories of critical Drugs (blood and blood products, Fluids, Vaccine and Sera)

**Fact Box: About the Drugs & Cosmetics Act, 1940**

- The Act, along with its associated rules, delegates regulatory responsibilities to both central and state regulators for overseeing drugs and cosmetics.
- The Act aims for uniform implementation to ensure patient safety and well-being by regulating drugs and cosmetics.



**11. NATIONAL ANTI-DOPING AGENCY (NADA)**

**CONTEXT:** The **National Anti-Doping Agency (NADA)** concluded the **Play True Campaign**, which was launched to raise awareness about the value of clean sport and anti-doping procedures in India.

**About NADA**

- ◆ NADA, India is an independent organization under the Youth Affairs & Sports Ministry.
- ◆ Objective: to promote clean sport practices throughout the nation and administers the Anti-Doping Program in India.
- ◆ Key areas of functioning: Sample Collection (SC), Results Management (RM), Anti-Doping Education & Awareness, Research, and Intelligence & Investigations (I&I) are among the primary functional areas.
- ◆ NADA India is dedicated to establishing a drug-free athletic environment and promotes the ethics and integrity of sports.
- ◆ In compliance with the World Anti-Doping Code 2021, NADA India oversees the anti-doping program in India.

**Fact Box: World Anti-Doping Agency**

- **Established in:** 1999
- **Headquarters:** Montreal, Canada
- It is a **global, independent organization** to spearhead an international cooperation movement for doping-free sports.

**12. SARNA CODE**

**CONTEXT:** The demand for Sarna religion has gained attention, particularly in the context of Lok Sabha elections.

**About Sarna Religion:**

- ◆ Sarna religious code to formally acknowledge the **tribe's unique religious identity** as a people who adore the natural world.
- ◆ It is often believed that having a distinct religious identity will stop the process of conversion while also effectively preserving the tribes' language, culture, and history.
- ◆ The Sarna faith believes that "**Jal (water), Jungle (forest), Zameen (land)**" is the holy grail. Its adherents worship to hills and trees and believe that the forest regions should be protected.
- ◆ Individuals who follow the Sarna faith do not believe in heaven, hell, the **Varna system**, or idol worship.
- ◆ **States that make up the tribal belt:** Odisha, Jharkhand, Bihar, West Bengal, and Assam.
- ◆ Although it was not a code, reports indicate that more than 5 million persons identified as "Sarna" in the **2011 Census**.

**13.D VOTERS**

**CONTEXT: 'D voters' remained a key issue in Assam during India's general elections.**

**Who is a D-Voter?**

- ◆ "Doubtful voter" or "D-voter" is a term used in Assam to refer to individuals whose citizenship status is uncertain during the creation of the National Register of Citizens (NRC).
- ◆ **Legal Ambiguity:** Neither the **Citizenship Act of 1955** nor the **Citizenship Rules of 2003** provide clear definitions for "doubtful voter" or "doubtful citizenship."
- ◆ **Creation of the National Population Register (NPR) and NRIC:** The Citizenship (Amendment) Act, 2003 established guidelines for the creation of the Citizenship Rules, 2003, which outline procedures for the creation of the NPR and the National Register of Indian Citizens (NRIC).
- ◆ **Classification Process:** Individuals whose citizenship is in question are classified as D-Voters.
- ◆ D-Voters are not allowed to vote in elections or run for office in the nation's elections.

**14. VIRTUAL TOUCH EDUCATION**

**CONTEXT: The Delhi High Court has instructed schools, colleges, and other relevant organizations to include education about "Virtual Touch" along with teaching "Good Touch" and "Bad Touch".**

**What is Virtual Touch?**

- ◆ Virtual touch can be defined as the perception or experience of physical contact or interaction that occurs in cyberspace or the digital realm.

- ◆ It refers to the sensation of touch or the potential for interaction with others through online platforms, such as **social media, messaging apps, or virtual reality environments**.
- ◆ Recognizing virtual touch involves understanding the boundaries of **appropriate online behavior** and **being aware of potential risks and dangers** associated with digital interactions, such as **cyberbullying, online grooming, or exploitation**.

**15. BORDER ROADS ORGANISATION (BRO)**

**CONTEXT: The Border Roads Organisation (BRO) celebrated its 65th Raising Day on 7th May, 2024.**

**About BRO**

- ◆ **Founded:** 7th May 1960
- ◆ **Ministry:** Ministry of Defence
- ◆ **Type:** Statutory body
- ◆ The BRO is an **executive force** responsible for **road construction in India** and is a part of the **Indian Armed Forces**.
- ◆ It constructs and maintains roads, bridges, tunnels, and airfields primarily in strategic areas along India's northern and western borders.
- ◆ Over the past six decades, the BRO has built over **62,214 kilometers of roads, 1,005 bridges, seven tunnels, and 21 airfields** in challenging terrain and adverse weather conditions along India's borders and in friendly countries like **Bhutan, Myanmar, Afghanistan, and Tajikistan**.
- ◆ The BRO will soon start construction on the **Shinkun La Tunnel**, which will be 4.10 kilometers long. Once completed, it will be the world's highest tunnel at 15,800 feet, surpassing **China's Mila Tunnel** at 15,590 feet.

**16. CHIEF MINISTER'S ARREST & CONSTITUTIONAL PROVISIONS**

**CONTEXT: This detention of Delhi's Chief Minister has garnered attention due to its potential impact on the electoral process, especially in the CONTEXT: of the upcoming Lok Sabha election.**

**Legal Immunity**

- ◆ According to **Article 361** of the Indian Constitution, the **President of India and Governors of states and Union Territories** are granted immunity from civil and criminal proceedings throughout their terms.
- ◆ This means they cannot be sued or prosecuted for actions taken in the course of their official duties.

◆ **Limitations of Immunity:** Unlike Presidents and Governors, **Prime Ministers and Chief Ministers** do not enjoy legal immunity.

- ▶ They are subject to the **principle of equality before the law**, meaning they can be sued or prosecuted like any other citizen. However, arrest alone does not lead to disqualification from office.
- ▶ The Indian Constitution does not explicitly address whether a person can remain Chief Minister while in remand. However, **Section 8(3) of the Representation of People Act, 1951**, stipulates that a **Member of the Legislative Assembly (MLA) or Member of Parliament (MP)** can face disqualification if convicted and sentenced to at least two years in prison.
- ▶ In short, disqualification **only occurs** if they are convicted of a crime.

**Grounds for Removal of a Chief Minister:**

- ◆ A Chief Minister (CM) is primarily a **Member of the Legislative Assembly (MLA)**, thus subject to **MLA disqualification criteria**, such as holding an **office of profit, unsound mind declaration, charge-sheeting, bankruptcy, loss of citizenship, or Anti-defection Law violation**.
- ◆ Removal can also occur if the CM loses majority support or faces a no-confidence motion in the legislative assembly. Mere arrest is **not enough for removal**.
- ◆ **For Delhi, specific provisions apply:**
  - ▶ **Article 239AA:** President appoints CM and they hold office at the President's pleasure.
- ◆ **Article 239AB:** President, upon LG's report of constitutional machinery failure, can suspend the legislative assembly and remove the CM.

**Fact Box: President's Rule**

- President's Rule can be imposed in Delhi under **Article 239AB** of the Constitution.
- The LG can recommend to the President who can invoke Article 239AB citing "failure of constitutional machinery".
- **Consequences of the implementation of President's rule in a state:**
  - ▶ The governor becomes the head of the state.
  - ▶ The state's legislative assembly is dissolved or suspended.
  - ▶ The central government takes over the administration of the state.
  - ▶ New elections must be held within 6 months.
  - ▶ Public services may be disrupted as major changes cannot be made.

- ▶ No new policies or laws can be enacted by the state government.
- ▶ Pending welfare policies remain on hold during this period.

**UPSC PYQ**

**Q. Which of the following are not necessarily the consequences of the proclamation of the President's rule in a State? (2017)**

1. Dissolution of the State Legislative Assembly
2. Removal of the Council of Ministers in the State
3. Dissolution of the local bodies

**Select the correct answer using the code given below:**

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

**Solution: (b)**

**17. INDIA BECOME WORLD'S 3RD LARGEST SOLAR POWER GENERATOR**

**CONTEXT:** India has emerged as the **world's third-largest solar power generator** in 2023, surpassing Japan, according to **Global Electricity Review 2024** report. **Solar energy's contribution to global electricity** hit a record 5.5%, with India's solar generation reaching **5.8%** of its total electricity production.

**Key Highlights of the Report:**

- ◆ **India's Solar Power Ranking:** India overtakes Japan to become the third-largest solar power generator globally, with solar energy contributing significantly to its electricity generation.
- ◆ **Global Renewable Energy Usage:** Renewable energy, including wind and solar, now accounts for over 30% of global electricity, with clean energy sources, including nuclear power, comprising nearly 40% of total global electricity generation.
- ◆ **Carbon Intensity Reduction:** The surge in renewable energy has led to a 12% decrease in the carbon intensity of global electricity since 2007.
- ◆ **Solar Energy Growth:** Despite challenges like reduced hydropower production due to drought conditions,

solar energy remains the fastest-growing electricity source globally for the 19th consecutive year. Solar added double the new electricity capacity compared to coal in 2023.

- ◆ India's Solar Generation Increase: India's solar generation increased by 18 terawatt-hours (TWh) in 2023, positioning it fourth globally behind China, the United States, and Brazil. These four nations contributed 75% of the global increase in solar generation.
- ◆ Global Solar Generation Growth: Global solar generation in 2023 was over six times higher than in 2015.

#### Fact Box

#### India's Ambitious Goals to combat Climate Change

- By the end of the decade, it aims to reduce the **carbon intensity** of its economy by at least 45%.
- By 2030, it plans to have **50% of its electricity coming from renewable sources** and hopes to achieve **net-zero carbon emissions by 2070**.
- To reach these targets, India aims to have **500 gigawatts of renewable energy capacity** by 2030 and produce **5 million tonnes of green hydrogen**. This will be supported by **125 gigawatts of renewable energy capacity**.
- Additionally, India has approved the creation of **50 solar parks** with a combined capacity of **37.49 gigawatts**.
- **Government Initiatives for Solar Energy:** PM rooftop solar scheme, Pradhan Mantri Kisan Urja Surakshaevam Uttham Mahabhiyan (PM KUSUM), Solar Park Scheme, Rooftop Solar Scheme, Atal Jyoti Yojana (AJAY), National Solar Mission, SRISTI Scheme, International Solar Alliance (ISA)

## 18. PAYMENT AGGREGATOR (PA)

**CONTEXT:** The Reserve Bank of India has granted payment aggregator (PA) licences to numerous payment providers and big merchant organizations in recent months.

#### What is Payment Aggregator?

- ◆ A payment aggregator is a **third-party service provider** that enables customers to make and businesses to accept payments online.
- ◆ **Key-examples:** Amazon Pay, PayPal, Stripe, others.
- ◆ PAs enable their clients to accept various payment methods such as **UPI, debit cards, credit cards, cardless EMIs, bank transfers, e-wallets**.

- ◆ After receiving payments from clients, PAs combine them and send them to the retailers.
- ◆ **Requirement:** A company that submitted an application for a PA license had to have had a net value of Rs. 15 crore as of March 31, 2021, and Rs. 25 crore as of March 31, 2023.
- ◆ **Features:**
  - ▶ Seamless Onboarding, Integration and Sub-Merchant Account
  - ▶ Secure Payment Processing
  - ▶ Fraud Detection and Prevention
  - ▶ Multiple Payment Options
  - ▶ Fast Settlements and Customer Support

## 19. INDIA-GHANA TO LINK UPI

**CONTEXT:** India and West African nation Ghana are teaming up to make it easier for people to send money between the two countries. They want to connect their payment systems - India's **Unified Payments Interface (UPI)** and Ghana's **Ghana Interbank Payment and Settlement Systems (GHIPSS)**.

#### Key-highlights:

- ◆ Both countries agreed to make UPI available on Ghana's GHIPSS within six months. India's UPI is already being used in countries like Singapore and the UAE.
- ◆ India and Ghana are also discussing other collaborations like signing a deal on Digital transformation Solutions, setting up a Local Currency Settlement System, and exploring opportunities under the African Continental Free Trade Agreement (AfCFTA).
- ◆ India-Ghana Trade:
  - ▶ Bilateral trade between India and Ghana: It increased to USD 2.87 billion in 2022-23 from USD 2.6 billion in 2021-22.
  - ▶ India's imports from Ghana: gold, cocoa, cashew nuts and timber products
  - ▶ India's exports to Ghana: cereals, made-up textiles, agricultural machinery, transport vehicles, electrical equipment, pharmaceuticals, plastics, iron and steel, ethyl alcohol, beverages

**UPSC PYQ**

**Q. Which of the following is the most likely consequence of implementing the 'Unified Payments Interface (UPI)'? (2017)**

- (a) Mobile wallets will not be necessary for online payments.
- (b) Digital currency will totally replace the physical currency in about two decades.
- (c) FDI inflows will drastically increase.
- (d) Direct transfer of subsidies to poor people will become very effective.

**Solution: (a)**

**20. CONFIDENTIAL IPO FILING**

**CONTEXT:** A number of businesses have chosen to submit their **initial public offering (IPO)** documents in secret beforehand.

**What is Confidential IPO Filing?**

- ◆ By amending the Issue of Capital and Disclosure Regulations (ICDR), the Securities and Exchange Board of India (Sebi) enabled the confidential pre-filing of Draft Red Herring Prospectuses (PDRHP) an optional method starting in 2022.
- ◆ In contrast to the standard procedure, wherein the complete DRHP is disclosed to the public, the pre-filings in this case are private.
- ◆ When the corporation really decides on the timing, etc., of the issue, the DRHP—which takes into account the regulator’s opinions—is released to the public.

**21. PASSIVE EXCHANGE-TRADED FUND (ETF)**

**CONTEXT:** The investment cap for passive funds in sponsor group companies has been raised by SEBI in an effort to boost the effectiveness and competitiveness of these funds in India.

**About passive exchange-traded fund (ETF)**

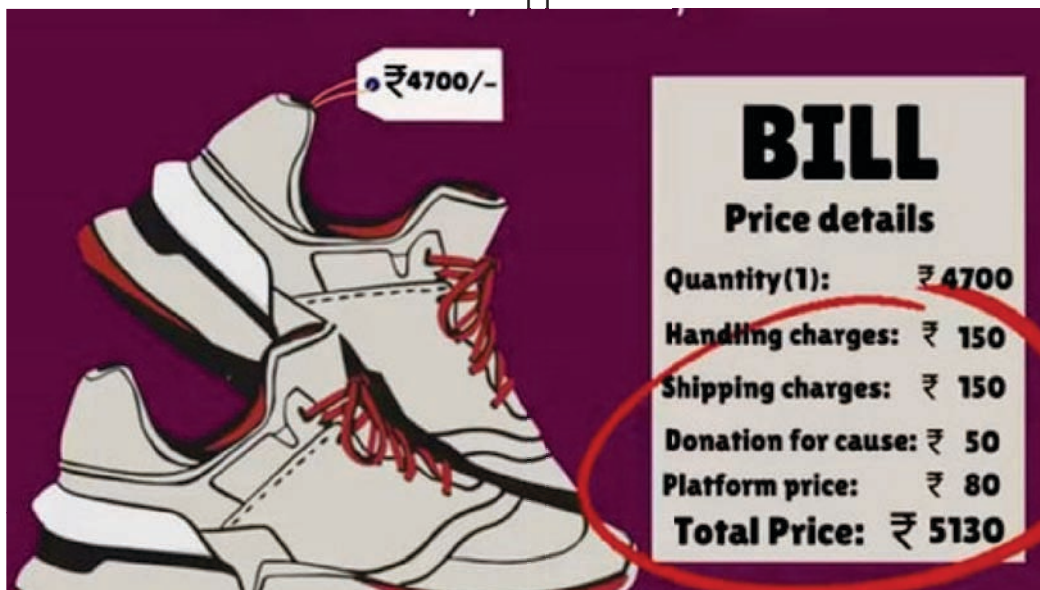
- ◆ An investment tool called a **passive exchange-traded fund (ETF)** aims to mimic the performance of either a particular industry or trend or the larger **equity market**.
- ◆ ETFs replicate the holdings of an index, which is a group of **tradable securities** that are thought to be typical of a specific market or industry.
- ◆ They are available for purchase and sale at any time during the trading day, just like **stocks on a major exchange**.

**22. DRIP PRICING**

**CONTEXT:** The Department of Consumer Affairs issued a warning about 'drip pricing,' where **only part of the price is shown upfront, and additional charges are added later.**

**About Drip Pricing**

- ◆ Drip pricing means showing **only a fraction of an item’s cost at first**, and revealing the full amount during purchase.



- ◆ These added charges might include taxes or booking fees, or omitting necessary extras like internet access, which may be needed for the product or service.
- ◆ In December 2023, the **Central Consumer Protection Authority (CCPA)** released '**Guidelines for Prevention and Regulation of Dark Patterns, 2023**' to tackle practices like **drip pricing, bait and switch, disguised advertising, and false urgency**.
- ◆ Such practices are considered 'unfair trade practices' under the **Consumer Protection Act, 2019**.

#### Fact Box: Consumer Protection Act, 2019

- The **Consumer Protection Act, 2019** was passed by the Indian government to address issues related to violations of consumer rights, unfair trade practices, and misleading advertisements.
- The Act aims to protect consumers' rights and interests by setting up **Consumer Protection Councils** to resolve disputes and provide compensation if consumers' rights are violated.
- There are **six rights of consumers** outlined in **Section 2(9) of the Act**.
  - ▶ Protection from hazardous goods and services.
  - ▶ Protection against unfair trade practices, ensuring awareness of quality, quantity, price, etc.
  - ▶ Access to a variety of goods and services at competitive prices.
  - ▶ Right to seek redressal against unfair trade practices.
  - ▶ Right to receive adequate compensation if wronged by the seller.
  - ▶ Right to consumer education.

## 23. CAPITAL GAIN TAX & INTEREST INCOME

**CONTEXT:** The Mumbai bench of the Income-tax Appellate Tribunal (ITAT) ruled that the difference between the proceeds from redeeming unlisted non-convertible debentures (NCDs) and their purchase cost will be considered as 'Interest income' and not 'capital gain tax'. It will be taxed under the head 'Income from other sources' for the investor.

### About

#### 1. Capital Gain Tax

- ▶ Any profit or gain that arises from the sale of a 'capital asset' is known as 'income from capital gains'. Such capital gains are taxable in the year in which the transfer of the capital asset takes place. This is called **capital gains tax**.

- ▶ The following items do not fall under the category of capital assets:
  - Stocks, consumables, or raw materials held for business or professional purposes
  - Personal belongings like clothes and furniture used for personal use
  - **Agricultural land** in rural India
  - 6½% gold bonds (1977), 7% gold bonds (1980), or National Defence gold bonds (1980) issued by the central government
  - Special bearer bonds (1991)
  - Gold deposit bonds issued under the **gold deposit scheme (1999)** or deposit certificates issued under the **Gold Monetisation Scheme, 2015, and Gold Monetisation Scheme, 2019** notified by the Central Government.

#### 2. Interest Income

- ▶ Interest income refers to the money earned by an entity for lending its funds or allowing another entity to use its money.
- ▶ It is typically considered taxable income and is reported in the income statement because it represents revenue earned by the entity.

#### Fact Box: Non-convertible debentures (NCDs)

- Non-convertible debentures (NCDs) are **fixed-income securities** typically issued by highly-rated companies through public offerings to raise long-term capital.
- Unlike convertible debentures, NCDs cannot be converted into equity shares or stocks.
- **Category:** Debt category
- **Benefits (compared to convertible debentures):** liquidity, low risk, supreme returns and tax benefits

## 24. OVERVIEW OF INDIA'S GDP GROWTH IN 2024

**CONTEXT:** India's remarkable economic journey in 2023 and 2024 reflects its status as a global economic powerhouse, driven by its rich cultural heritage and a population exceeding 1.4 billion.

### Key Highlights:

- ◆ **GDP Growth:** India's GDP surged by 8.4% in the third quarter of FY24, marking a significant increase compared to the previous year.
- ◆ **Sectoral Growth:** The construction sector experienced robust growth, fueled by demand for residential properties. Manufacturing and service sectors also witnessed growth, although concerns lingered over private consumption growth.

◆ **Export Contribution:** While exports contributed 22.2% to GDP, there was a marginal decline compared to the previous quarter.

**Understanding GDP Growth Rate:**

◆ **GDP growth** rate reflects the pace of a country's economic expansion over a specific period, measured annually or quarterly. It signifies economic health, with positive rates indicating growth and negative rates indicating contraction or recession.

**Historical GDP and growth rate of India**

Financial Year	GDP	GDP Per Capita (Nominal)	GDP Growth
2024 (Q3,FY2024)	\$4,112.00B*	\$2,845	8.4%
2023	\$3,737.00B	\$2,610	7.2%
2022	\$3,385.09B	\$2,389	7.00%
2021	\$3,150.31B	\$2,238	9.05%
2020	\$2,671.60B	\$1,913	-5.83%
2019	\$2,835.61B	\$2,050	3.87%
2018	\$2,702.93B	\$1,974	6.45%
2017	\$2,651.47B	\$1,958	6.80%
2016	\$2,294.80B	\$1,714	8.26%
2015	\$2,103.59B	\$1,590	8.00%
2014	\$2,039.13B	\$1,560	7.41%
2013	\$1,856.72B	\$1,438	6.39%
2012	\$1,827.64B	\$1,434	5.46%
2011	\$1,823.05B	\$1,450	5.24%
2010	\$1,675.62B	\$1,351	8.50%

**\*As per government of India**

◆ **GDP per Capita:** GDP per capita is a metric for assessing a country's economic prosperity, calculated by dividing GDP by population. India's strong economic fundamentals, including thriving domestic demand and favorable demographic trends, contribute to its status as the fifth-largest economy globally.

**India's rank in GDP\***

Rank	Country	GDP (in U.S. dollars)	Annual Growth rate
1	United States of America	28.78 trillion	2.7%

Rank	Country	GDP (in U.S. dollars)	Annual Growth rate
2	China	18.53 trillion	4.6%
3	Germany	4.59 trillion	0.2%
4	Japan	4.11 trillion	0.9%
5	India	3.94 trillion	6.8%

*Data and rankings as per International Monetary Fund (IMF)*

**Fact Box: Calculating GDP**

GDP is computed using the formula:  $Y = C + I + G + (X - M)$

- **Y** represents the **Gross Domestic Product**.
- **C** represents consumption (spending on services, non-durable goods, and durable goods).
- **G** represents government expenditure (salaries of employees, construction of roads, railways, airports, schools, and military expenses)
- **I** denotes investment (spending on housing and equipment)
- **X-M** denotes the difference between total exports and imports (**net exports**)

**25. TIRTHAHALLI ARECA**

**CONTEXT:** Of all the types grown in Karnataka, the arecanut cultivated in the Tirthahalli region turned out to be the highest grade variety.

**About**

- ◆ **Family:** Arecaceae
- ◆ Areca is actually a berry (and not a nut)
- ◆ India is the world's largest producer and consumer of betel nut. Karnataka is the leading areca-nut producing state, followed by Kerala.
- ◆ Areca nut trees can reach heights of 12 to 20 meters, and their crown-shaped leaves can reach lengths of 30 to 60 meters. The fruits range in length from 3 to 5 cm, are smooth, oblong in shape, have one seed, and are colored from green to orange.
- ◆ Areca nuts, the fruit's endosperm, have a diameter of 2-4 cm and are reddish-brown or greyish-brown in color.
- ◆ Areca nuts contain, lignin, tannins arecatannin and gallic acid, alkaloids (arecoline, arecaidine) and guvacine, loaded with vasoconstricting properties.

## UPSC PYQ

## Q. Consider the following (2018)

1. Areca
2. Barley
3. Coffee
4. Finger millet
5. Groundnut
6. Sesamum
7. Turmeric

The Cabinet Committee on Economic Affairs, has announced the Minimum Support Price for which of the above?

- (a) 1, 2, 3 and 7 only  
 (b) 2, 4, 5 and 6 only  
 (c) 1, 3, 4, 5 and 6 only  
 (d) 1, 2, 3, 4, 5, 6 and 7

**Solution: (a)**

## Q. Consider the following pairs (2014)

**Region** : Well known for the production of:

1. Kinnaur : Areca nut
2. Mewat : Mango
3. Coromandel : Soya bean

Which of the above pairs is/are correctly matched?

- (a) 1 and 2 only            (b) 3 only  
 (c) 1, 2 and 3            (d) None

**Solution: (d)**

## 26. ETA AQUARIID METEOR SHOWER

**CONTEXT:** The Eta Aquariid meteor shower, originating from the famous Halley's Comet, is set to peak soon.

### Formation of Eta Aquariid Meteor Shower

- ◆ The Eta Aquariid meteor shower is formed when the Earth passes through the orbital plane of Halley's Comet, a periodic comet that orbits the Sun every 76 years.
- ◆ This celestial event occurs annually.
- ◆ First observed in **240 BCE**, the recurring appearances of this comet were elucidated by astronomer Edmond Halley in **1705**.
- ◆ **Characteristics:** Comprising burning space debris moving at speeds of around 66 km per second, the Eta Aquariid meteor shower is known for its rapid speed,

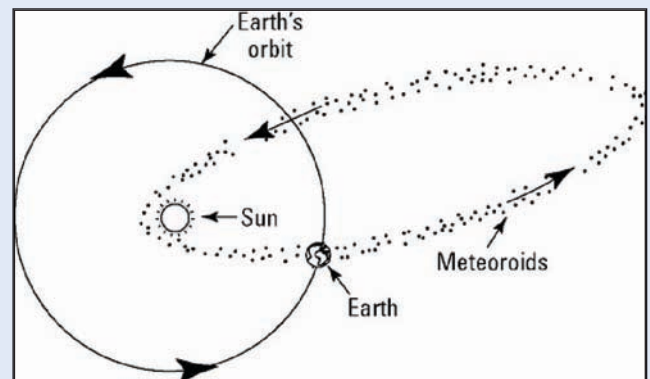
resulting in long, glowing tails that can last several minutes.

- ▶ This spectacle is best visible to countries in the **Southern Hemisphere**, such as Indonesia and Australia.

- ◆ **Association with Other Meteor Showers:** Similar to the Eta Aquariids, the **Orionids meteor shower** also originates from Halley's Comet and **occurs annually in October**.

### Fact Box: About Meteors

- Meteors are grains of dust or rock.
- They burn up as they enter the Earth's atmosphere, creating brief tails of light.
- While most meteors are tiny and burn up completely, larger meteors, known as **meteorites**, can hit the ground and cause significant damage.
- **Cometary Origin:** Comets are the source of meteor showers.
  - ▶ Comets are frozen remnants of solar system's origin from about 4.6 billion years ago.
  - ▶ They are made of ice, rock, and dust.
  - ▶ Their highly elliptical orbits around the Sun might take hundreds of thousands of years to complete in some circumstances.
  - ▶ NASA reports that there are 3,910 confirmed comets at this time, but billions more may be orbiting the Sun in the **Kuiper Belt** and even beyond **Oort cloud**, which are both thought to be orbiting beyond Neptune.



## 27. CHINA LAUNCHES CHANG'E-6 TO FAR SIDE OF THE MOON

**CONTEXT:** China launched a lunar probe Chang'e-6 to land on the far side of the moon and return with samples that could provide insights into differences between the less-explored region and the better-known near side.



**Key-highlights:**

- ◆ The **Chang'e-6 lunar probe** was carried aboard a **Long March 5 rocket**.
- ◆ If successful, it will make China the first nation to ever retrieve samples from the **far-side of the moon**.
- ◆ The anticipated **53-day mission** comes after China became the first country in 2013 to achieve a **robotic lunar landing** in nearly four decades, and two years after the nation completed its **own orbital space station**, the **Tiangong**, in 2022 to rival the **International Space Station**.
- ◆ The goal of China's mission is to either land or orbit the moon. Previous lunar missions have also been launched.
- ◆ **Other Significant Lunar Missions:**
  - ▶ Around the same time last year, India successfully landed its first spacecraft, the **Chandrayaan-3**, on the moon.
  - ▶ When **Russia's Luna 25** probe crashed into the lunar surface, its first lunar mission in decades came to an abrupt end.
  - ▶ **Japan joined India, the United States, China, and Russia/Soviet Union** as the countries with the most unmanned spacecraft landings on the moon in January.

**Fact Box: Dark Side of the Moon**

- The side of the Moon that is hidden from view from Earth is known as the far side. Its reduced visibility from Earth is caused by a phenomenon known as **"tidal locking."**
- The phrase "dark side of the moon" has occasionally been used to describe the hidden side of the moon, mostly in connection to the **1973 Pink Floyd album** of the same name
- It is very different from the near side.
- Despite appearing black, the far side of the moon receives plenty of light and goes through lunar day and night exactly like the near side.
  - ▶ A lunar night lasts roughly two weeks, and a lunar day lasts little more than 29 days.
  - ▶ The moon rotates around its axis and completes an orbit of Earth in approximately 27 days, so the same side faces Earth every time.
- **Near side:** The 60% of the moon that is visible from Earth is referred to as the near side. Throughout history, humans have visited this side of the moon, which is always facing Earth, on multiple lunar expeditions.

**28. BOEING'S STARLINER SPACECRAFT**

**CONTEXT:** Boeing's Starliner spacecraft, set to launch from the Kennedy Space Center, aims to ferry NASA astronauts to the International Space Station (ISS), competing with SpaceX in NASA crew transport.

The inaugural crewed test flight is set to carry Navy aviators Commander Barry "Butch" Wilmore and Pilot Sunita "Suni" Williams (Indian-origin astronaut Sunita Williams) to the ISS.

**What is Boeing's Starliner?**

- ◆ Starliner, also known as **CST-100**, is a **crew capsule** designed for **space travel**, comprising a crew module and a service module.
- ◆ The crew module can carry up to seven astronauts but will be modified for four along with cargo for **ISS missions**.
- ◆ It's **partially reusable**, with the crew module capable of **10 reuses** with a six-month turnaround.
- ◆ The spacecraft is equipped with a pusher abort system for crew safety during launch and ascent.
- ◆ It boasts software-driven operations and wireless internet connectivity for crew communication, entertainment, and docking with the ISS.
- ◆ **The Mission Objective:**
  - ▶ Starliner's first crewed test flight aims to assess its performance in space with astronauts aboard.
  - ▶ Docking with the ISS for approximately 10 days allows testing of manual flight controls, life-support systems, cargo transfer, and new spacesuits.

*(see figure on next page)*

**29. TACTICAL WEAPONS**

**CONTEXT:** Russia's Defence Ministry announced that it would be holding drills involving tactical nuclear weapons.

**About Tactical Weapons**

- ◆ Tactical nuclear weapons, intended for use against **troops on the battlefield**, are less potent and can have a yield as little as approximately 1 kiloton, in contrast to **nuclear-tipped intercontinental ballistic missiles**, which are capable of **destroying entire cities**.
- ◆ During **World War II**, the U.S. bomb dropped on **Hiroshima** was **15 kilotons**.

## Boeing Starliner

First crewed mission will ferry two US astronauts to the International Space Station

### Atlas V rocket

United Launch Alliance

Height:  
52.4 m

Centaur  
upper  
stage

RD-180  
engine

Boosters

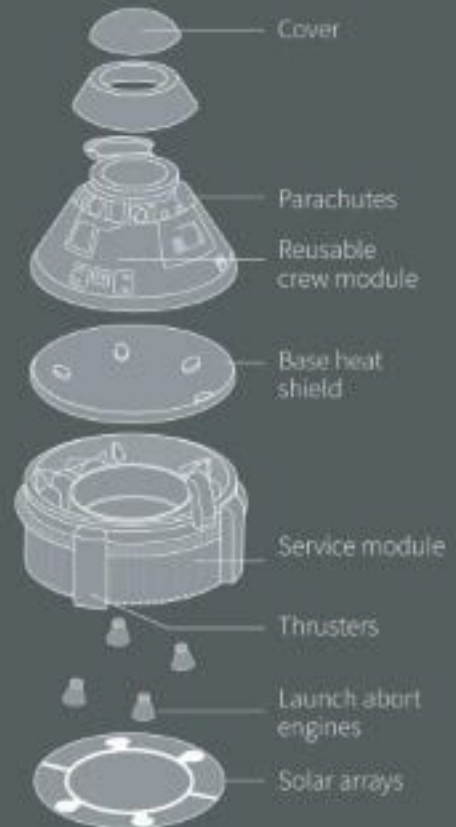
### Starliner spacecraft

Boeing's Crew Space Transportation (CST)-100

Height:  
5 m (with crew & service module)

Diameter:  
4.6 m

Payload:  
designed to carry up to  
7 passengers, or a mix of crew and  
cargo for low-Earth orbit missions



Sources: NASA, Boeing, ULA

AFP

- ◆ These nuclear weapons for use in combat, such as **artillery ammunition, aerial bombs, and warheads for short-range missiles**, can be quite small. They can be discreetly taken on a vehicle or airplane due to their modest size.
- ◆ A range of **missiles, torpedoes, and gravity bombs** from **land, air, or naval forces** can deliver these weapons. They could even be driven into a location and set off by itself.
- ◆ Tactical weapons have never been **restricted by any arms control agreements** between Moscow and Washington, unlike strategic weapons, which have been the subject of such accords; Russia hasn't disclosed their quantity or any other relevant information.

## 30. FLYING WEDGE DEFENCE 200B (FWD-200B)

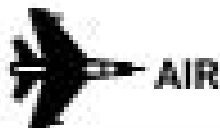
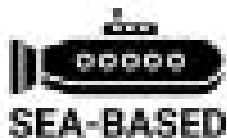
**CONTEXT:** Flying Wedge Defence and Aerospace Technologies presented the Flying Wedge Defence 200B (FWD-200B), an indigenous military grade bomber unmanned aerial vehicle (UAV).

### About FWD-200B

- ◆ FWD-200B, **India's first indigenous bomber unmanned aircraft (UAV)**, is built with state-of-the-art technology and manufactured in India
- ◆ **Cost:** Rs 25 crores. (US Predator costs 250 crore).

# Russia's Tactical Nukes

Smaller-yield nuclear devices designed for winning the battle, not the war



900+ warheads

- Weapons:**
- Land-attack cruise missiles
  - Anti-ship cruise missiles
  - Anti-submarine rockets
  - Anti-aircraft missiles
  - Torpedoes
  - Depth charges

- Platforms:**
- Submarines
  - Aircraft carriers
  - Cruisers
  - Destroyers
  - Frigates
  - Corvettes
  - Naval aircraft

500+ warheads

- Weapons:**
- Cruise missiles
  - Hypersonic missiles
  - Guided bombs
  - Air-to-surface missiles
  - Air-to-air missiles

- Platforms:**
- Tu-22M3 (Backfire) intermediate-range bombers
  - Su-24M (Fencer-D) fighter-bombers
  - New Su-34 (Fullback) fighter bomber
  - MiG-31K

350+ warheads

- Weapons:**
- Surface-to-air interceptors
  - Short-range ballistic missiles
  - Ground-launched cruise missiles

- Platforms:**
- S-300/S-400 air defense systems
  - A-135 anti-ballistic missile defense system
  - SS-26 (Iskander)
  - 9M729

Subscribe to our global politics newsletter Signal at [gzromedia.com](http://gzromedia.com)  
Source: Bulletin of the Atomic Scientists

**GZERO**

- ◆ **Payload capacity:** 100 kgs
- ◆ The bomber plane is categorized as a **medium-altitude, long-endurance (MALE)** unmanned combat aerial vehicle.
- ◆ For precise airstrikes, the **Unmanned Aerial System (UAS)** is equipped with missile-like weaponry and optical surveillance payloads.
- ◆ With a maximum takeoff weight of 498 kg, the FWD-200B has a 200 kilometer ground control station (GCS) range.
- ◆ **Speed:** It can travel at a maximum speed of 200 kts, or 370 kmph, for 12 to 20 hours.

## 31. MAGNETIC RESONANCE IMAGING (MRI)

**CONTEXT:** Magnetic Resonance Imaging (MRI) has revolutionized medical imaging since its development in the early 1970s and has become indispensable in modern healthcare.

### About MRI

- ◆ Magnetic Resonance Imaging (MRI) is a non-invasive diagnostic tool used to visualize soft tissues within the body.

- ◆ **Applications:** MRI is crucial for diagnosing conditions such as cancer, neurological disorders, and cardiovascular diseases.
- ◆ **Functional MRI (fMRI):** This variant of MRI helps track brain activity by monitoring changes in blood flow.
- **Limitations of MRI:** MRI scans cannot be conducted on individuals with certain metallic implants or objects due to the strong magnetic fields involved.
- **Working Principle of MRI:**
  - ▶ **Hydrogen Atoms and Magnetic Fields:** MRI relies on the behavior of hydrogen atoms in the body's tissues when exposed to magnetic fields.
  - ▶ **Components of an MRI Machine:** An MRI machine consists of a powerful magnet, a radiofrequency emitter, and a detector.
  - ▶ **Image Reconstruction:** The emitted radiofrequency pulse excites hydrogen atoms, which then emit signals detected by the machine to create images.

## 32. DIGITAL HOUSE ARREST

**CONTEXT:** The term “digital house arrest” was recently popularized by cybercriminals who are always coming up with new schemes to defraud people in the ever expanding digital world.

### About

- ◆ Cybercriminals use a technique called “Digital House Arrest” to extort victims by keeping them captive at home.
- ◆ By using **AI-generated voice or video calls** to impersonate police or authorities and by suggesting that the victim has done something wrong with their Aadhaar or phone number, the scammers create a climate of dread.
- ◆ By making individuals dread being arrested and making them pay a fee, they jail them in their own houses.

### Fact Box: Government Interventions

- **Chakshu portal:** The **Department of Telecommunications (DoT)** has launched a new website called the Chakshu portal aims to assist individuals in avoiding phone and online frauds. It's for reporting questionable messages or calls, not for reporting frauds that have already occurred.
- **Sanchar Saathi platform:** Launched in 2023 by DoT, it is an inventive project to raise awareness of government activities while strengthening mobile customers' security and empowering them.
- **Digital Intelligence Platform (DIP):** It is a **secure** and integrated platform for real-time intelligence sharing, information exchange, and coordination among stakeholders, including **telecom service providers (TSPs), law enforcement agencies (LEAs), banks and financial institutions (FIs), social media platforms, identity document issuing authorities.**

## 33. MPOX OUTBREAK

**CONTEXT:** Attempts are being made to contain the largest Mpox outbreak in the Democratic Republic of the Congo (DRC). Researchers have shown that a new form of the disease that was found in a mining community may be more contagious.

### About Monkeypox:

- ◆ The monkeypox virus is the infectious agent that causes **mpox**, often known as **monkeypox**.
- ◆ It may result in fever, swollen lymph nodes, and an excruciating rash.
- ◆ The virus that causes mpox, also known as **monkeypox**, is the **enveloped double-stranded DNA virus** of the **Orthopoxvirus genus** in the **Poxviridae family**, which also includes **vaccinia, cowpox, variola, and other viruses**.
- ◆ Clades I and II, the virus's two genetic clades, are native to **Central and West Africa** and are related to **smallpox**.
  - ▶ **Clade 1:** Up to 10% of those infected can die from Clade 1, which is more severe.
  - ▶ **Clade 2:** The 2022 outbreak was started by Clade 2, and over 99% of those infected recovered.
- ◆ **Transmission:** The mpox can spread from person to person by direct contact with infected skin or other lesions including those on the mouth or genitalia.
- ◆ In July 2022, the global mpox outbreak was classified as a **public health emergency of international significance (PHEIC)** by **WHO**.

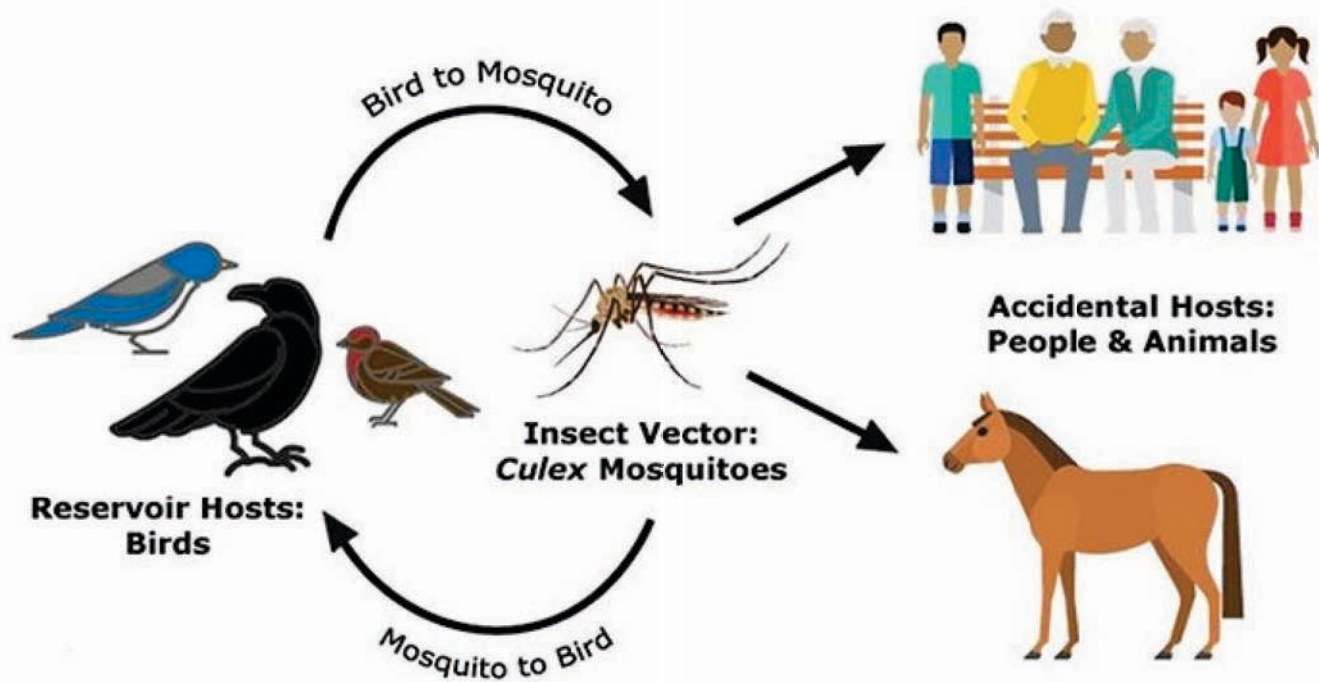
## 34. WEST NILE FEVER

**CONTEXT:** West Nile fever cases have been recently reported in Kerala.

### About

- ◆ **Caused by:** West Nile virus (WNV) is the cause of West Nile fever.
- ◆ In humans, the West Nile virus can induce a **fatal neurological condition**. All infected individuals, though, might not exhibit any symptoms.
- ◆ West Nile virus (WNV) is classified by the **World Health Organization** as a member of the **flavivirus genus** and a member of the **family Flaviviridae's Japanese encephalitis antigenic complex**.
- ◆ WNV is classified by the **World Health Organization** as a member of the **flavivirus genus**. It belongs to the **Japanese encephalitis antigenic complex** of the family **Flaviviridae**.
  - ▶ Flavivirus is a group of positive, **single-strand RNA viruses** and mostly have **arthropod vectors**.

### West Nile Virus Transmission Cycle



- ▶ It cause a number of serious human diseases such as yellow fever, dengue, encephalitis, hepatitis C, and West Nile Fever.
- ◆ **Symptoms:** fever, headache, exhaustion, aches and pains in the body, nausea, vomiting, sporadic skin rash, and enlarged lymph nodes.
- ◆ **Treatment:** At present, there is no vaccine available.
- ◆ Uganda saw its discovery in 1937. In 2011, Kerala recorded the **first** West Nile fever case.

### 35. WIDAL TEST

**CONTEXT:** Typhoid fever is a common ailment in India, often diagnosed using the Widal test. However, this test has limitations, leading to misdiagnosis and inappropriate treatment. Understanding the shortcomings of the Widal test and exploring alternative solutions is crucial for effective management of typhoid fever.

#### About Widal Test

- ◆ The Widal test is a rapid diagnostic tool used to detect infections caused by bacteria like “**Salmonella typhi**” or “**Salmonella paratyphi**.”
- ◆ It works by observing if the patient’s blood contains antibodies against these bacteria, which can cause them to clump together when mixed with healthy red

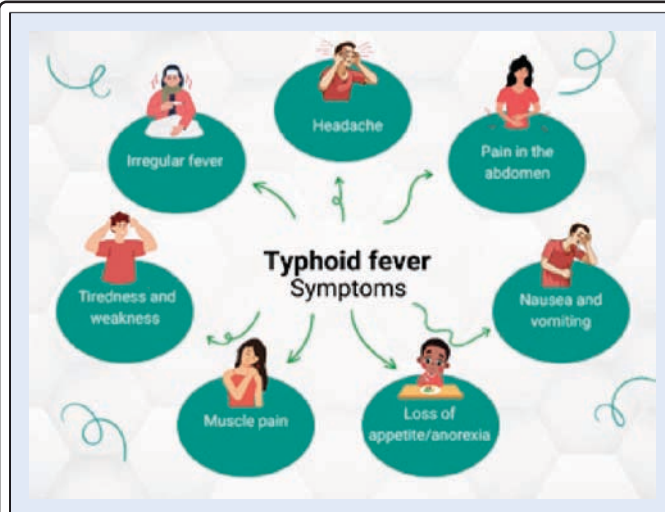
blood cells. A positive result suggests the presence of **Salmonella typhi** and a likely case of typhoid fever.

#### Limitations of the Widal Test:

- ◆ The Widal test may provide false positives or negatives due to various factors such as prior antibiotic treatment and cross-reactivity with antibodies from other infections.
- ◆ A single positive Widal test result is insufficient for diagnosis, requiring multiple samples over time, which is often impractical.
- ◆ **Consequences of Widal Test Use:**
  - ▶ Inaccurate diagnosis and treatment, obscuring the true burden of typhoid fever in India.
  - ▶ Exacerbation of antimicrobial resistance issues.

#### Fact Box: About Typhoid

- Typhoid fever is a serious illness caused by **Salmonella Typhi** bacteria.
- **Transmission:** Typhoid is transmitted through contaminated food or water. Once **Salmonella Typhi** bacteria are ingested, they multiply and spread into the bloodstream.
- **Symptoms:** High fever, stomach pain, weakness, nausea, vomiting, diarrhea or constipation, and a rash.
- According to the World Health Organization, around 9 million people worldwide are diagnosed with typhoid every year, and approximately 110,000 deaths occur due to the illness.



### 36. A(H5N1) CLADE 2.3.4.4B

**CONTEXT:** A deadly strain of avian influenza is spreading across the global ocean. Scientists estimate that it has caused the death of tens of millions of poultry and wild birds around the world.

#### What is Bird Flu?

- ◆ Bird flu, or avian flu, is a naturally occurring illness caused by **Type A influenza viruses**, with the current strain being H5N1.
- ◆ It primarily spreads among wild birds like ducks, geese, and gulls, who shed the virus in their saliva, mucus, and feces.
- ◆ Domestic poultry, such as chickens and turkeys, are also susceptible to infection.
- ◆ **Types of Avian Influenza:**
  - ▶ **Low pathogenic avian influenza (LPAI)** may cause mild symptoms or no illness in domestic poultry.
  - ▶ **Highly pathogenic avian influenza (HPAI)** causes severe illness and high death rates among infected poultry. In 1997 the HPAI H5N1 virus first emerged in poultry in Hong Kong, and again in China in 2003.
- ◆ **Impact on Ocean Wildlife:**
  - ▶ The current strain of avian influenza, **A(H5N1) clade 2.3.4.4b**, has led to mass deaths among wild birds and marine mammals.
  - ▶ In Peru, over 100,000 birds from 24 species died
  - ▶ 13 marine mammal species have been affected, with thousands of deaths recorded in countries like **Argentina and Peru**.
- ◆ **Human Health Concerns:** While humans can be infected with H5N1, such cases are relatively rare, and the risk to the public has been considered low.

#### UPSC PYQ

**Q. H1N1 virus is sometimes mentioned in the news with reference to which one of the following Diseases? (2015)**

- (a) AIDS      (b) Bird flu  
(c) Dengue    (d) Swine flu

**Solution: (b)**

### 37. ISRO SUCCESSFULLY TESTS PRE-BURNER IGNITION

**CONTEXT:** ISRO has made significant progress in developing its semi-cryogenic propulsion systems by successfully igniting a pre-burner.

#### About

- ◆ The **pre-burner ignition test** is part of ISRO's efforts to develop a **powerful semi-cryogenic engine** that will use a combination of liquid oxygen and kerosene as propellants.
- ◆ This engine aims to increase the payload capacity of launch vehicles like **LVM3**.
- ◆ **Start fuel ampule:** Semi-cryogenic engine ignition is achieved using a **start fuel ampule** which uses a combination of **Triethyle Aluminate and Triethyle Boron** developed by **Vikram Sarabhai Space Centre (VSSC)**.
- ◆ Next steps include testing the engine power head and fully integrating the engine. Additionally, ISRO is working on developing a **semi-cryo stage** with 120 tons of propellant loading.

#### Fact Box: ISRO's Semi-Cryogenic Engine

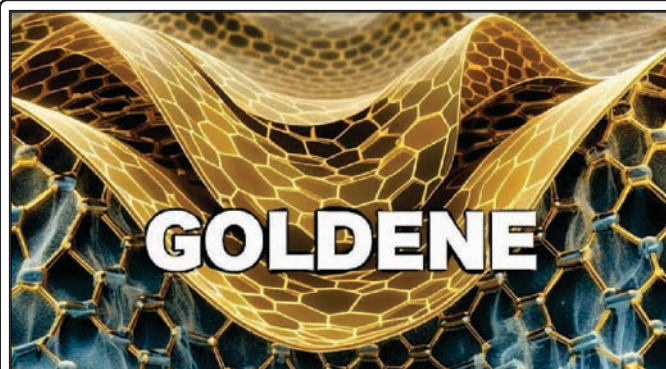
- ISRO is developing a **2000 kN thrust semi-cryogenic engine** working on an **LOX Kerosene propellant combination** for enhancing the payload capability of LVM3 and for future launch vehicles.
- **Liquid Propulsion Systems Centre (LPSC)** is the lead centre for the development of semi-cryogenic propulsion systems with the support of other launch vehicle centres of ISRO.

### 38. DISCOVERY OF GOLDENE

**CONTEXT:** Researchers from Sweden have achieved a significant breakthrough by creating a **super thin sheet of gold**, just **one atom thick**. This is the first time a metal has been made into a **freestanding 2D sheet**, which opens up exciting possibilities for the future.

### How Goldene was created?

- ◆ Goldene is much thinner and lighter than traditional gold.
- ◆ Unlike other materials, making metallic sheets just one atom thick has been challenging because metals tend to cluster into nanoparticles instead.
- ◆ To overcome this, researchers sandwiched an atomic layer of silicon between layers of titanium carbide.
- ◆ Then, they deposited gold on top of this sandwich, and the gold atoms replaced the silicon ones, forming a trapped layer of gold atoms.
- ◆ Using a traditional Japanese technique (Murakami's reagent), they etched away the titanium carbide layers, leaving behind the free-standing, one-atom-thick layer of gold.
- ◆ Applications:
  - ▶ It can be a more economical option for electronics, reducing the amount of gold needed without compromising its conductivity (as it is thin)
  - ▶ The technique used to create goldene could also be applied to other metals like iridium and platinum.
  - ▶ It could be useful in various applications like carbon dioxide conversion, hydrogen production, and water purification.

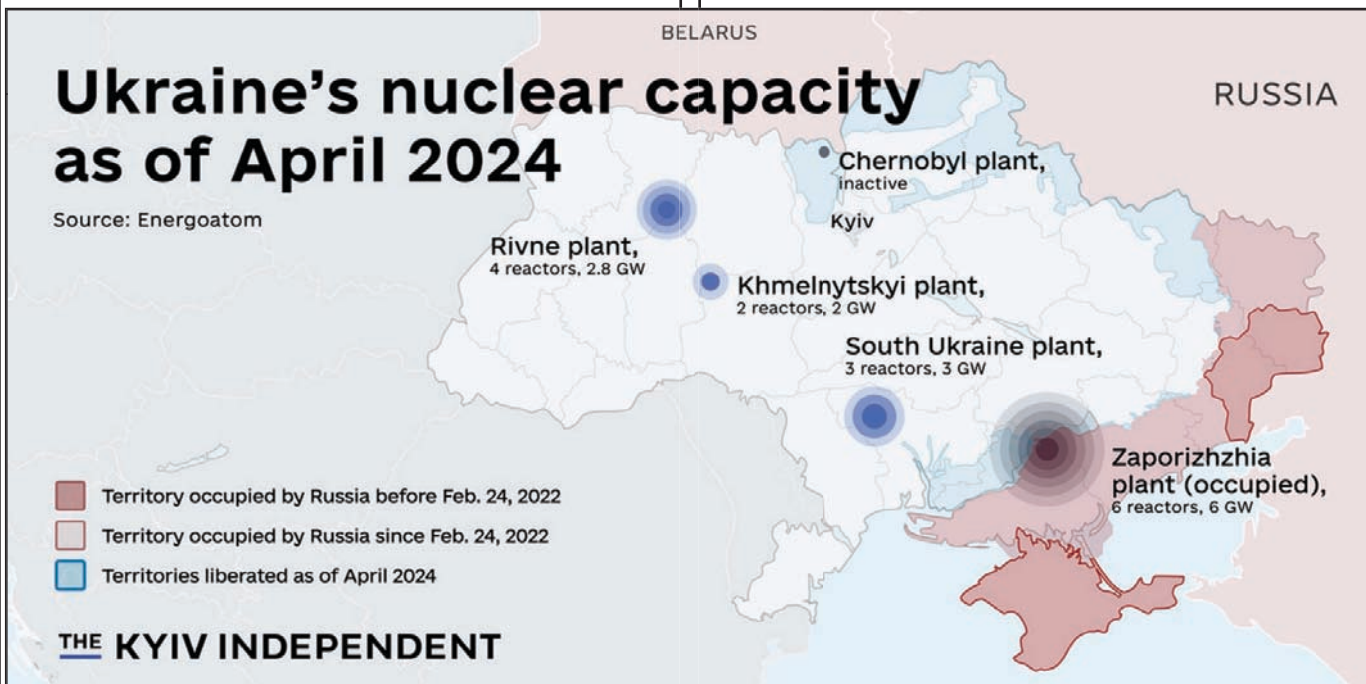


### 39. UKRAINE'S RELIANCE ON NUCLEAR ENERGY

**CONTEXT:** Approximately 50% of Ukraine's power output is still produced by the nuclear industry, 38 years after the Chernobyl Disaster.

#### Key-highlights:

- ◆ **Share of energy output:** Following Slovakia and France, Ukraine has the **third-highest nuclear** energy output percentage globally.
- ◆ After the seizure of the **Zaporizhzhia plant (largest nuclear power plant in Europe)** by Russian forces in 2022, the other three Soviet-era nuclear power plants remain under Ukrainian control. They are:
  - ▶ Pivdennoukrainsk (South Ukraine)
  - ▶ Khmelnytskyi
  - ▶ Rivne



### Chornobyl Disaster

- The ongoing situation in Zaporizhzhia is heavily influenced by the memories of the **nuclear meltdown at Chornobyl**.
- **Date of disaster:** 26 April 1986
- **Cause of disaster:** Flawed reactor design that was operated with inadequately trained personnel.
- Massive amounts of radioactive material were spilled into the atmosphere, when one of the reactors of the Chornobyl power station exploded.

### About

- ◆ **Location:** Sahyadri Ranges of Western Ghats, Maharashtra
- ◆ STR is **Northern Western Ghats' first Tiger Reserve**.
- ◆ Consisting of 1,165 square kilometers, the reserve was established in 2010 through the combination of **Koyna wildlife sanctuary and Chandoli national park**.
- ◆ The translocation is a part of a long-term plan to revive the big cat population in the northern **Western Ghats forests**. The reserve has **zero tigers within it**.



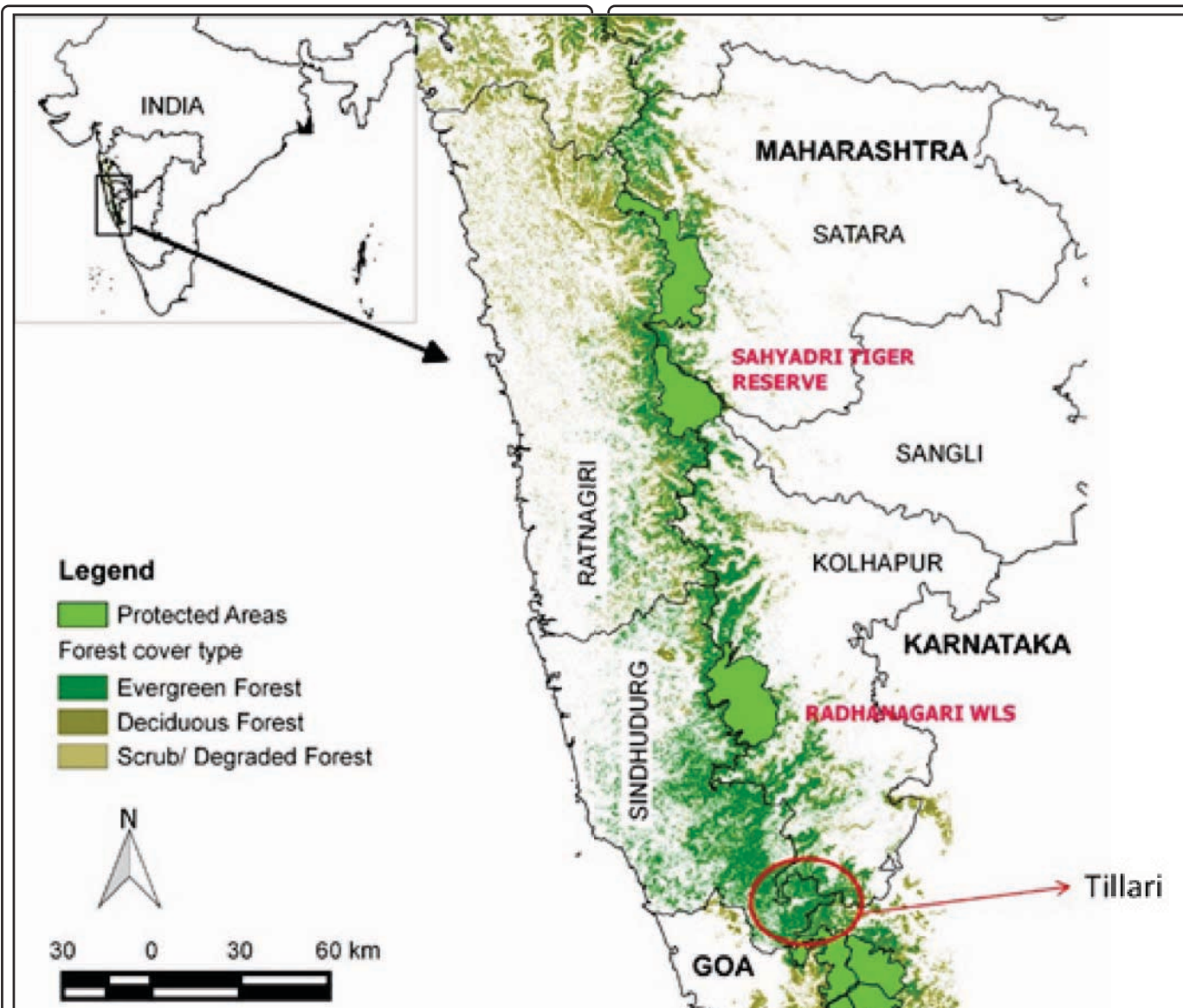
## 40. SAHYADRI TIGER RESERVE (STR)

**CONTEXT:** The only tiger reserve in the western section of the state, Sahyadri, is set to receive a small number of tigers from the Tadoba-Andhari Tiger Reserve (TATR) in Chandrapur.

## 41. COAL SHARE IN INDIA'S ELECTRICITY CAPACITY BELOW 50%

**CONTEXT:** In 2023–24, coal's historical share of India's installed power capacity dropped below 50%, which was a significant turning point in the nation's transition to renewable energy.





**Key-findings of CEEW Centre for Energy Finance (CEEW-CF) Market Handbook**

- ◆ During the fiscal year, India installed 26 GW of new power generation capacity, of which 71% came from renewable energy sources.
- ◆ India’s installed capacity totalled 442 GW, of which 144 GW (33%) and 47 GW (11%), respectively, came from renewable sources.
- ◆ Coal: For the first time, India’s installed capacity percentage accounted for less than 50% of coal and lignite.
  - ▶ From 54.8% in FY21 to 52.7% in FY22 to 50.9% in FY23 and 49.2% in FY24, the proportion of coal in installed capacity has gradually decreased. This is mostly due to the notable increase in renewable energy.
- ◆ Solar Power: At 15 GW (81% of additional renewable capacity), solar power, including rooftop and grid-scale installations, led India’s expansion of renewable capacity.
- ◆ Wind Power: Wind capacity increased from 2.3 GW to around 3.3 GW in the preceding year.

- ◆ Nuclear Power: The addition of 1.4 GW of nuclear capacity marked a first since the 2017 fiscal year.

**Fact Box:**

- In August 2022, India amended its formal climate change pledges to the UN, promising to have 50% of its power coming from non-fossil sources by the same year and to cut its GDP emissions intensity by 45% from 2005 levels by 2030.

**42. PERCOLATION WELLS**

**CONTEXT:** In a proactive move to address water scarcity and replenish groundwater levels, the Bangalore Water Supply and Sewerage Board (BWSSB) has undertaken an initiative to constructed percolation/recharge wells across the city of Bangalore.

**About**

- ◆ Percolation wells serve as **crucial infrastructural elements** in the conservation and restoration of groundwater.
- ◆ These wells are strategically designed to capture rainwater, facilitating its percolation into the ground.
- ◆ By creating a conducive percolation and filtration environment, these wells trigger the natural replenishment of aquifers, thereby restoring and conserving groundwater levels.

**43. URBAN HEAT ISLANDS**

**CONTEXT:** Rising temperatures in India's urban landscape are attributed to the urban heat-island effect, making the metro areas significantly warmer than their surroundings

**What is the Urban Heat Island Effect?**

- ◆ The urban heat island effect refers to higher temperatures in urban areas compared to their rural surroundings.
- ◆ It occurs due to human activities and urban infrastructure that absorb and retain heat more effectively.
- ◆ **Causes and Effects:**
  - ▶ **Building Materials:** Concrete and asphalt in cities absorb heat during the day and release it slowly, keeping temperatures elevated, especially at night.
  - ▶ **Lack of Green Spaces:** Urban areas have fewer trees and green spaces, reducing natural cooling through shade and exacerbating the heat island effect.
  - ▶ **Energy Demands:** Metropolitan cities have higher energy demands for transportation, industry, and air conditioning, releasing heat into the air and straining energy sources.
  - ▶ **Building Density:** Dense urban development limits airflow and creates heat-trapping spaces between structures, leading to higher temperatures.
  - ▶ **Air Quality:** Urban heat islands have poorer air quality due to trapped pollutants, and warm water from cities can harm nearby streams and ecosystems.
  - ▶ **Contribution to Global Warming:** Urban heat islands may contribute to overall warming by increasing temperatures locally and potentially beyond.
  - ▶ **Energy Demands and Power Outages:** High urban temperatures increase energy demands for cooling, straining energy resources and causing power outages during peak periods.
- ◆ **Relationship with Climate Change:** Heat islands and climate change are related but not the same. Urban heat islands contribute to local temperature increases, which can exacerbate the effects of climate change.

**44. BATILLIPES CHANDRAYAANI**

**CONTEXT:** Researchers have discovered a new species of **marine tardigrade**, named **Batillipes chandrayaani**, from the southeast coast of Tamil Nadu. The species is named after the **Chandrayaan-3 moon mission** by the **Indian Space Research Organisation (ISRO)**.

**About the Species**

- ◆ Tardigrades, also known as 'water bears,' are microscopic animals found in marine and terrestrial environments. Despite their small size, they are incredibly resilient and have survived mass extinctions. Marine tardigrades account for 17% of all known tardigrade species and are found in oceans worldwide.
- ◆ It measures 0.15 millimetres in length and 0.04 millimetres in width, with a trapezoid-shaped head and four pairs of legs.
- ◆ Both sexes have similar morphology and size.
- ◆ This discovery adds to the genus **Batillipes**, making it the 39th species described.



### 45. EXOTIC PLANT SPECIES

**CONTEXT:** According to a study, removing alien plants from forested areas will assist ensure that wild elephants at Munnar’s Chinnakkanal have food.

#### What are Invasive species?

- ◆ An organism that is not native or indigenous to a certain location is referred to as an invasive species.
- ◆ **Pathways:** Oceangoing ships’ ballast water, purposeful and inadvertent discharges of aquaculture species, aquarium specimens or bait, and other methods can all introduce an invasive species into a new location.
- ◆ The majority of food crops cultivated in the US, such as popular types of rice, tomatoes, and wheat, are not indigenous to the area.
  - ▶ A species needs to be able to readily adapt to its new environment in order to qualify as invasive.
  - ▶ It needs to proliferate rapidly.
  - ▶ It has to damage property.

#### List of invasive flora and fauna in India

Name	State / Region	Native to
African apple snail	Andaman and Nicobar	
Papaya Mealy Bug	Assam	Mexico and Central America,
Cotton Mealy Bug	Deccan	North America
Amazon sailfin catfish	West Bengal	
Black Wattle	Western Ghats	South East Australia
Water Hyacinth	It is found throughout India	Tropical America
Black Mimosa	Himalaya, Western Ghats	Tropical North America
Parthenium/ Congress grass, Parthenium	It is found throughout India	Tropical North America
Cannibal Snail / Rosy wolf snail	–	Native to the southeastern United States.
Indian Bullfrog	Andaman and Nicobar	Afghanistan, Bangladesh, India, Myanmar, Nepal, Pakistan

Lantana camara	In the Bandipur National Park, Karnataka	South America
----------------	--	---------------

### 46. SHAKSGAM VALLEY

**CONTEXT:** In Shaksgam Valley, an area of Pakistan-occupied Kashmir (PoK) that Beijing acquired in 1963, China is constructing a road that would link Muzaffarabad with Yarkahnd in Xinjiang via the Mustagh Pass.

#### About

- ◆ Located 5,400 square kilometers north of Siachen, the Shaksgam valley is part of **Pakistan-occupied Kashmir (PoK)** and provides the Chinese with a strategic edge along the **Line of Actual Control (LAC)**.
- ◆ The Shaksgam Valley is a part of India’s territory because India rejected the 1963 “China Pakistan Boundary Agreement,” which purportedly allowed Pakistan to try and illegally hand over the region to China.
- ◆ China unlawfully acquired 5180 square kilometers of Indian territory in the Shaksgam Valley from Pakistan in 1963.
- ◆ The **Trans Karakoram Tract**, commonly known as the **Shaksgam Valley**, is a portion of the **PoK’s Hunza-Gilgit region**.
- ◆ The road is thought to be a segment of a route that connects the **Upper Shaksgam Valley**, which lies adjacent to the **Siachen Glacier**, to the **Karakoram Highway**.
- ◆ This new road crosses the **Aghil Pass**, which is 16,333 feet high.
- ◆ It may offer an alternate route to the **Upper Shaksgam Pass**, which leads to the Karakoram Pass, and to the **Khunjerab Pass**, which is located in the northern areas of occupied Jammu and Kashmir.
- ◆ Dominate features of the region are the **K2 peak**. The region is mostly covered in glaciers and has high mountains on all sides.

### 47. RUANG VOLCANO

**CONTEXT:** Numerous violent eruptions of the Ruang volcano have sparked worries about the risks of living on the island in the future.

#### About

- ◆ Ruang Island, a small island in the **Sitaro islands chain**, is home to the **Stratovolcano volcano**.
- ◆ North Sulawesi province is home to Ruang Island.

- ◆ Ruang is one of Indonesia's around **130 active volcanoes**.
- ◆ Because of its location on the Pacific "**Ring of Fire**," a network of fault lines that runs from the western coasts of the **Americas through Japan and Southeast Asia**, the archipelagic nation is vulnerable to **earthquakes and volcanic eruptions**.

#### Fact Box: About Volcanic eruption

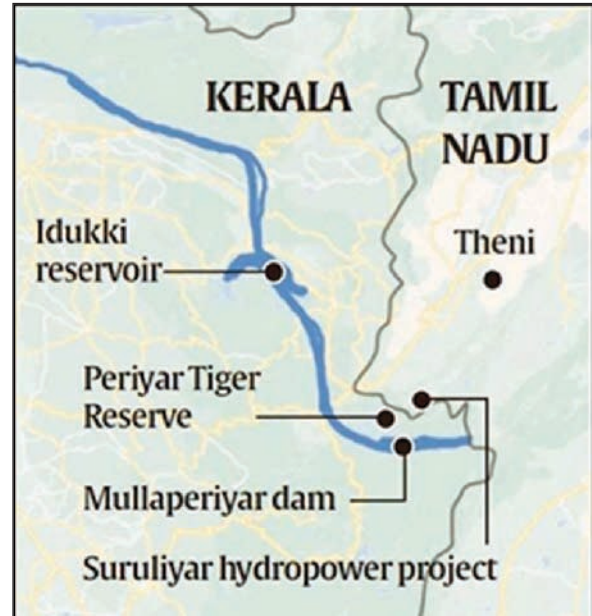
- A volcano is a geological feature or vent in the Earth's crust through which **magma, gases, ash, and other volcanic materials** erupt onto the Earth's surface or into the atmosphere.
- **Types of Volcanoes:** Stratovolcanoes (composite volcanoes), shield volcanoes, cinder cone volcanoes, and lava domes.
- **Global Distribution:** There are approximately 1,500 potentially active volcanoes worldwide, with many located along the boundaries of tectonic plates or in volcanic hotspots such as the **Pacific Ring of Fire**.
- **Eruption Hazards:** When volcanoes erupt, they can release a variety of hazardous materials, including **hot gases (such as sulfur dioxide and carbon dioxide), volcanic ash, lava flows, and volcanic bombs**. These materials can pose significant risks to nearby communities, infrastructure, and ecosystems.

## 48. MULLAPERIYAR DAM

**CONTEXT:** In the Supreme Court, Tamil Nadu accused Kerala of both "**wilfully obstructing**" work that was necessary to repair the over **125-year-old Mullaperiyar dam** and "**crying foul**" over its safety.

#### About

- ◆ **Location:** On the Periyar River in Kerala's Idukki district
- ◆ Its building was finished in 1895.
- ◆ The dam was built to **redirect the waters** of the **west-flowing River Periyar eastward**, into the dry areas that receive rain shadows in the **Tamil Nadu districts** of Theni, Madurai, Sivaganga, and Ramanathapuram.
- ◆ The dam was constructed to supply the temple town of Madurai in Tamil Nadu with the water it needs.
- ◆ For this reason, the Tamil Nadu government runs the dam even though it is located in Kerala.
- ◆ The operational rights were given to Tamil Nadu in accordance with a **999-year lease agreement** made during British rule.



## 49. DEEPEST BLUE HOLE

**CONTEXT:** A recent study discovered the deepest blue hole in the world—the Taam Ja' Blue Hole, located in Mexico's Chetumal Bay.

#### About Taam Ja' Blue Hole

- ◆ Mexico's Taam Ja' Blue Hole is the deepest known underwater sinkhole in the world.
- ◆ **Depth:** 1,380 feet (420 meters) below the surface.
- ◆ It outshines the previous record holder, the **Sansha Yongle Blue Hole (Dragon Hole)** in the **South China Sea**, by 480 feet.

#### Fact Box: Blue Hole (Karst Formations)

- Blue holes are also known as sinkholes.
- They are **vertical caverns** filled with water that are found in coastal areas where the bedrock is composed of soluble materials like gypsum, limestone, or marble.
- **Examples:** Great Blue Hole in Belize, the Bahamas' Dean's Blue Hole, and Egypt's Dahab Blue Hole.

## 50. WORLD'S HIGHEST ASTRONOMICAL OBSERVATORY

**CONTEXT:** At **5,640 meters (18,500 feet)** above sea level, the highest astronomical observatory in the world is currently open in the **Atacama Desert**.



### About

- ◆ Currently constructed and functioning, the **University of Tokyo Atacama Observatory (TAO)** is perched atop a mountain in the **Atacama Desert**.
  - ◆ TAO is situated atop **Cerro Chajnantor**, a peak in **Atacama**.
  - ◆ With a ground-based telescope that will allow astronomers to see the universe in infrared, this is now the highest point in the globe.
  - ◆ The TAO was originally designed to investigate the evolution of exoplanets and galaxies **26 years ago**.
- ◆ The two scientific equipment on board the 6.5-meter-long telescope of the TAO are intended to study **the universe in the infrared, or electromagnetic radiation** with a wavelength greater than visible light but shorter than **microwaves**.
    - ▶ **SWIMS:** Using imaging technology, one of the instruments, SWIMS, will study galaxies from the early universe to learn more about how they formed from pure gas and dust—a process that has been studied for decades but whose exact details are still unknown.
    - ▶ **MIMIZUKU:** The second, called MIMIZUKU, will

support the overall science goal by examining primordial dusty disks where stars and galaxies are known to form.

## 51. LIPULEKH, LIMPIYADHURA, AND KALAPANI

**CONTEXT:** Nepal announced the printing of a new Nepalese Rupee 100 currency note featuring a map showing disputed territories: Lipulekh, Limpiyadhura, and Kalapani. India has objected to this depiction.

### About

- ◆ **Border Length:** Nepal shares over 1,850 km of border with five Indian states: Uttarakhand, Uttar Pradesh, West Bengal, Bihar, and Sikkim.
- ◆ **Kalapani:** Kalapani is situated on the easternmost point of the **Pithoragarh district** in **Uttarakhand**.
  - ▶ **Northern boundary** are shared by the **Tibet Autonomous Region of China**
  - ▶ **Eastern and southern borders** are shared by Nepal.

- ▶ The area is situated between the trijunctions of **Lipulekh, Limpiyadhura, and Kalapani**, which connects China (Tibet) with Nepal-India.
- ▶ It is situated on the banks of the Kali River at an elevation of 3600 meters.
- ▶ The Kalapani regions are located along the eastern boundary between Nepal's Sudurpashchim Pradesh and the Indian state of Uttarakhand.
- ▶ Although Nepal claims the area for historical and geographical grounds, **India currently controls it**.
- ◆ **Lipulekh Pass:** Situated on the border between India's Uttarakhand and China's Tibetan autonomous region. Lipulekh pass has been used since ancient times by traders, pilgrims, and travelers between India and China, including those going to Kailas and Manasarovar.
- ◆ **Limpiyadhura:** This is where the territories of India, Nepal, and China meet.

### Fact Box: Kali River

- The origin of the River Kali is a key point of contention regarding Kalapani.
- India maintains that the **River Kali sprang** from a smaller stream called **Pankhagad**, which is located on the **southern side of Kalapani**.



# ALL INDIA PRELIMS MOCK TEST

OMR BASED

GET REAL TIME FEEL *of*  
Prelims Examination *in*  
UPSC SIMULATION ENVIRONMENT

Across 50+ Cities

- AGRA
- AHMEDABAD
- ALIGARH
- AURANGABAD (MAHARSTRA)
- BARAILY
- BENGALURU
- BHOPAL
- BHUBANESWAR
- BILASPUR
- CHANDIGARH
- COIMBATORE
- CUTTACK
- DEHRADUN
- DELHI
- DHARMSHALA
- DHARWAD
- GORAKHPUR
- GUWAHATI
- GWALIOR
- HYDERABAD
- INDORE
- ITANAGAR
- JABALPUR
- JAIPUR
- JAMMU
- JODHPUR
- KOCHI
- KOLKATA
- LUCKNOW
- LUDHIANA
- MADURAI
- MUMBAI
- MYSORE
- NAGPUR
- NAVI MUMBAI
- PANAJI
- PATNA
- PRAYAGRAJ
- PUNE
- RAIPUR
- RAJKOT
- RANCHI
- SAMBALPUR
- SHILLONG
- SHIMLA
- SRINAGAR
- SURAT
- THIRUVANANTHA-PURAM
- UDAIPUR
- VARANASI
- VIJAYAWADA
- VISAKHAPATNAM

1  
MOCK  
TEST

13  
APRIL

2  
MOCK  
TEST

19  
MAY

3  
MOCK  
TEST

02  
JUNE

TEST  
TIMING

PAPER 1: 9:30 AM to 11:30 AM  
PAPER 2: 01:00 PM to 03:00 PM

TEST  
DISCUSSION

ONLINE MODE  
5:30 PM on the Day of Test

ENGLISH & हिंदी माध्यम

₹ 500/- PER MOCK TEST

₹ 1000/- for ALL 3 MOCK TESTS



8448496262



iascore.in

**SECTION****C****TERMS OF THE WEEK**



S.NO.	TERM	ABOUT
1	<b>Antimicrobial Resistance</b>	<ul style="list-style-type: none"> <li>Antimicrobial resistance happens when germs like bacteria and fungi develop the ability to defeat the drugs designed to kill them.</li> </ul>
2	<b>Blue holes</b>	<ul style="list-style-type: none"> <li>Blue holes are huge underwater sinkholes that appear on the seafloor when the limestone bedrock collapses.</li> </ul>
3	<b>Comets</b>	<ul style="list-style-type: none"> <li>Comets are defined as icy bodies of frozen gases, rocks and dust left over from the formation of the solar system about 4.6 billion years ago. They orbit the sun in highly elliptical orbits</li> </ul>
4	<b>Cover cropping</b>	<ul style="list-style-type: none"> <li>Cover crops protect the soil surface from raindrop impact, improve infiltration relative to bare soil, and trap eroded soil particles.</li> </ul>
5	<b>Crop rotation</b>	<ul style="list-style-type: none"> <li>Crop rotation is the practice of growing a series of dissimilar/different types of crops in the same area in sequential seasons.</li> </ul>
6	<b>Exclusive Economic Zone (EEZ)</b>	<ul style="list-style-type: none"> <li>An exclusive economic zone is an area of the ocean, generally extending 200 nautical miles (230 miles) beyond a nation's territorial sea, within which a coastal nation has jurisdiction over both living and nonliving resources.</li> </ul>
7	<b>Initial Public Offering (IPO)</b>	<ul style="list-style-type: none"> <li>An initial public offering (IPO) refers to the process of offering shares of a private corporation to the public in a new stock issuance. An IPO allows a company to raise equity capital from public investors.</li> </ul>
8	<b>Loud quitting</b>	<ul style="list-style-type: none"> <li>Loud quitting means quitting... loudly, usually on social media, when employees are at the end of their tether. 'Loud quitting' does not begin and end with a private, albeit heated, discussion between employee and manager. Instead, the drama is out there for the whole world to see.</li> </ul>
9	<b>Line of Actual Control</b>	<ul style="list-style-type: none"> <li>The LAC is the demarcation that separates Indian-controlled territory from Chinese-controlled territory. India considers the LAC to be 3,488 km long, while the Chinese consider it to be only around 2,000 km</li> </ul>
10	<b>Line of Control</b>	<ul style="list-style-type: none"> <li>LOC is a 740 km long boundary or line of military control that divides the border between India and Pakistan in the region of Jammu and Kashmir</li> </ul>
11	<b>Monetary policy and Fiscal Policy</b>	<ul style="list-style-type: none"> <li>Monetary policy refers to central bank activities that are directed toward influencing the quantity of money and credit in an economy.</li> <li>Fiscal policy refers to the government's decisions about taxation and spending. Both monetary and fiscal policies are used to regulate economic activity over time.</li> </ul>
12	<b>Open market operations</b>	<ul style="list-style-type: none"> <li>It is a setup wherein a central bank purchases or sells bonds in the open market in order to regulate money supply in the economy,</li> </ul>
13	<b>Semi-Cryogenic Engine</b>	<ul style="list-style-type: none"> <li>A semi-cryogenic engine is a type of rocket engine that uses a combination of cryogenic and liquid fuel propulsion technologies. Unlike fully cryogenic engines, which use extremely cold liquid oxygen and liquid hydrogen as propellants, semi-cryogenic engines typically use liquid oxygen and a more conventional liquid fuel, such as kerosene</li> </ul>
14	<b>Shrinkflation</b>	<ul style="list-style-type: none"> <li>Shrinkflation is a type of inflation that occurs when a product's size is decreased but its retail price is kept the same. It is most prevalent in the food and beverage industry.</li> </ul>
15	<b>Trading securities</b>	<ul style="list-style-type: none"> <li>Trading securities are securities purchased by a company for the purpose of realizing a short-term profit.</li> </ul>
16	<b>Urban Heat Island</b>	<ul style="list-style-type: none"> <li>An urban heat island occurs when a city experiences much warmer temperatures than nearby rural areas.</li> </ul>

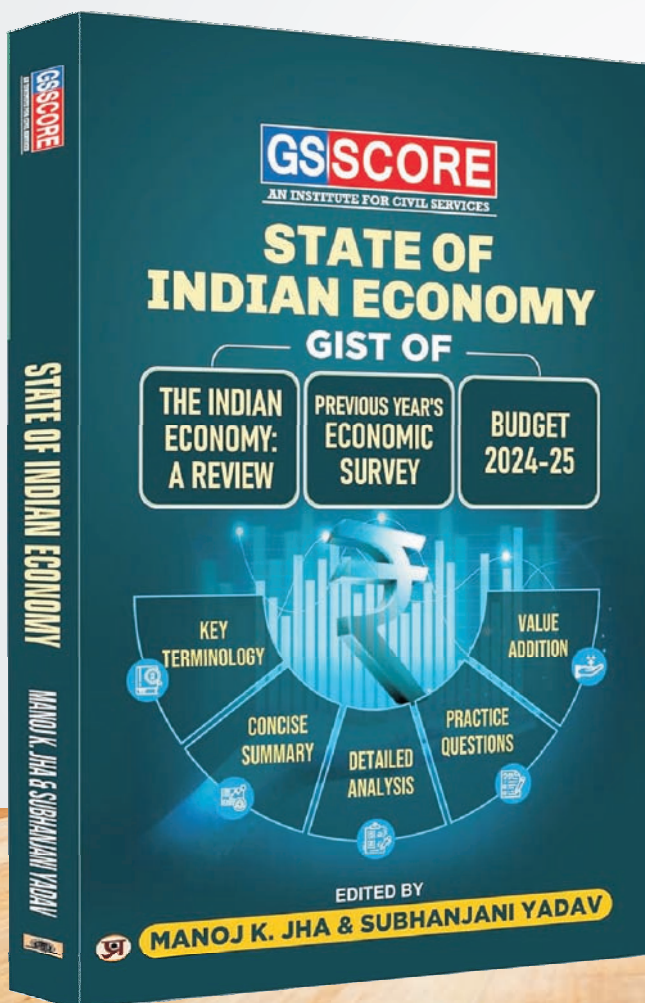
17	<b>Unmanned Aerial System (UAS)</b>	◆ UAS are air vehicles and associated equipment that do not carry a human operator, but instead are remotely piloted or fly autonomously.
18	<b>Xenophobia</b>	◆ Xenophobia is the dislike or hatred of people because they are unlike people in one's culture or society.
19	<b>Zero tillage</b>	◆ Zero tillage is a minimum tillage practice in which the crop is sown directly into soil not tilled since the harvest of the previous crop.
20	<b>2D</b>	◆ A 2D shape or two-dimensional shape is a flat figure that has two dimensions—length and width.





**AN INSTITUTE FOR CIVIL SERVICES**

# STATE OF INDIAN ECONOMY



To get the book,  
Scan the QR Code  
or click below link

