



**VAJIRAM & RAVI**  
Institute for IAS Examination

# The Analyst

**CURRENT AFFAIRS Handout**

**26th February 2026**



**CONTEXT:** In order to emerge as an AI Hub, India needs to significantly invest in its capacities.

## How are Indian firms training LLMs?

Why is training a Large Language Model on Indian soil with Indian capital a challenge? How has the IndiaAI Mission subsidised efforts to conduct training in India? Why is a Mixture of Experts (MoE) architecture inexpensive than other comparable models?

### EXPLAINER

Aroon Deep

#### The story so far:

At the AI Impact Summit, the Bengaluru-based startup Sarvam AI released two Large Language Models (LLMs), which are the foundation for AI systems that power services like Google's Gemini and OpenAI's ChatGPT. The two models were trained on 35 billion and 105 billion parameters respectively, and were less power- and compute-intensive than comparable models, while demonstrating improvements over other models in Indian languages, Pratyush Kumar, a Sarvam co-founder said.

#### How are LLMs trained?

LLMs are trained and operated on clusters of Graphics Processing Units (GPUs). The combined cost of the GPUs and the electricity needed to run them long enough to train a model, run into millions of dollars. The gist for this mill is data, largely scraped from the Internet, where English, European languages and East Asian languages like Korean and Japanese are more richly represented than Indian languages.

This creates a twofold challenge for training an LLM on Indian soil with Indian capital: for one thing, with scarce data sources, many LLMs either perform worse when operating on Indian languages, or burn more "tokens" on inference to translate sentences into English (and translating responses back) to perform better. Since machine translation has improved dramatically for Indian languages, this remains the gold standard for many LLMs. Secondly, since capital is also scarce, efforts to train an LLM by Indian firms targeting Indian users can be challenging, especially if there is no immediate business use case for doing so.

Using translations as a fulcrum can be a



**New innovations:** Prime Minister Narendra Modi with Sarvam co-founder Pratyush Kumar at the AI Impact Summit, at Bharat Mandapam, in New Delhi on February 19. PTI

challenge for developers who want to leverage local LLMs – like Sarvam's 35 billion parameter model, which was shown off in a demo during the summit's research symposium working on a feature phone – where suboptimal performance in Indian languages can impact adoption and quality of performance.

#### Has there been government support?

The IndiaAI Mission has subsidised efforts to conduct training in India, by commissioning over 36,000 GPUs in data centres operated by Indian firms like Yotta, and allowing researchers and startups to run training and inference workloads at a relatively nominal fee. The government gave Sarvam access to 4,096 GPUs from its common compute cluster, and the subsidy so far is estimated at

almost ₹100 crore. The "bill of materials" for this cluster is ₹246 crore, though these GPUs can probably be continued to be used by others.

The Ministry of Electronics and Information Technology has encouraged domestic LLM development for many reasons. The main one is a belief that foreign-developed LLMs can't possibly find the capabilities or the business case to develop the capacity to work well with Indian languages. Additionally, encouraging talent that can train LLMs has been seen as important to foster the Indian AI ecosystem.

As such, Sarvam's announcement of its two models is a significant development in India's own quest to develop a powerful and relatively inexpensive LLM. When China's DeepSeek developed its R1

LLM, the entire AI industry quickly adopted its techniques, as it saved on cost for training and inference without compromising output quality. The government has sought to spark a similar cost advantage.

Mr. Kumar of Sarvam said that the LLM was trained "from scratch," and that the model would be made open source. However, while it has been made available on an app named Indus, it is not available on platforms like Hugging Face, making it difficult for outside experts to scrutinise the claims the firm has made.

#### What is the MoE architecture?

A key breakthrough for AI models seeking to function locally was the Mixture of Experts (MoE) architecture. When the first LLMs trained on hundreds of billions or even over a trillion parameters were launched, inference was typically run by "activating" all parameters, making queries expensive. But an MoE model only activates a fraction of the overall parameters of a model, making it run faster and also consume a lower level of computing resources.

Even 105 billion parameters, Sarvam acknowledges, "is significantly smaller than the frontier models powering global consumer chat applications today," and the firm says it is "intentionally focused on accuracy, usefulness, efficiency, and alignment for the Indian context before training bigger foundational models".

As such, the answers are not as in-depth as a response from paid versions of Gemini or ChatGPT. That part will come later, Sarvam says, when it has the necessary investments to put money into a larger training run.

Another LLM developed and trained on the common compute cluster was by BharatGen, the IIT Bombay-incubated firm that was able to train a "multilingual" 17 billion parameter model. That model, the firm says, is for use in sectors like education and healthcare. Gnani.ai, another firm, launched a small text-to-speech model.

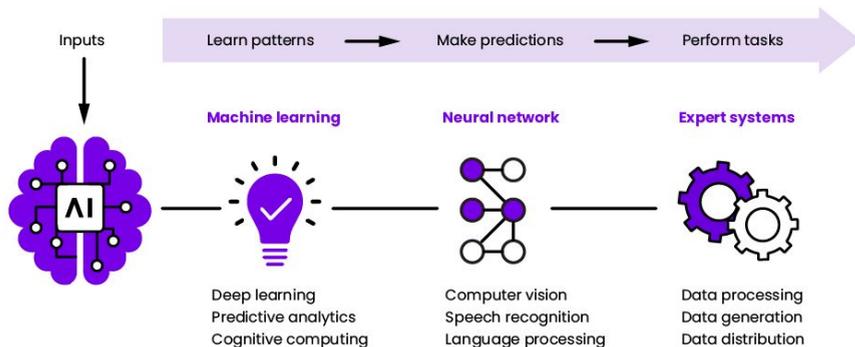
### THE GIST

LLMs are trained and operated on clusters of Graphics Processing Units (GPUs). The combined cost of the GPUs and the electricity needed to run them long enough to train a model, run into millions of dollars.

The IndiaAI Mission has subsidised efforts to conduct training in India, by commissioning over 36,000 GPUs in data centres operated by Indian firms like Yotta.

A key breakthrough for AI models seeking to function locally was the Mixture of Experts (MoE) architecture.

### HOW AI WORKS



# The AI Revolution: Is India Ready?



**CONTEXT:** In order to emerge as an AI Hub, India needs to significantly invest in its capacities.

## 'Artificial' Intelligence

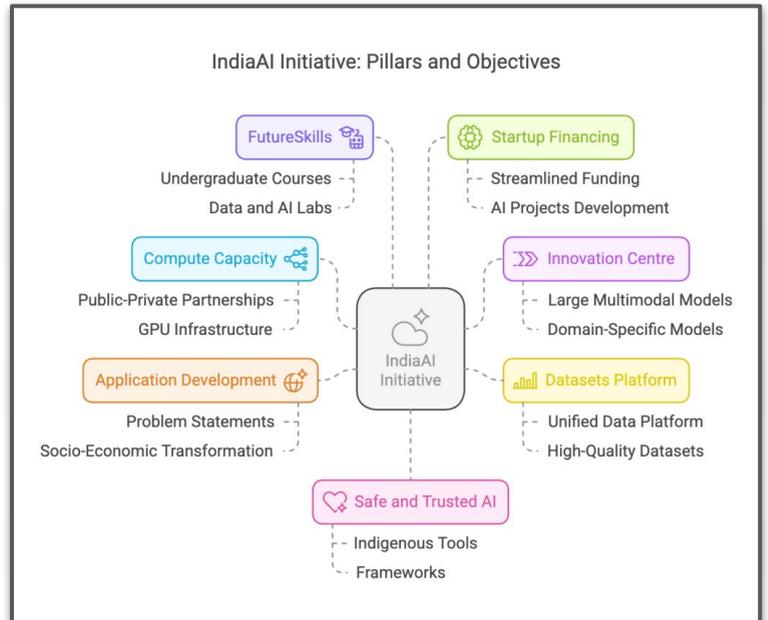
- Simulation - Human Intelligence
- Algorithms & Computational Models
- Core - Data - Machines
- **PROCESS - Two Techniques**
  - Machine Learning - Patterns
  - Deep Learning - ANNs - Mimic Human Brain

## Applications of AI - wide areas:

- **Healthcare** - IBM Watson Health, Google DeepMind's AI
- **Finance** - PayPal
- **Education** - Duolingo, Gradescope
- **Transportation** - Tesla's Autopilot system, Google Maps
- **Retail and E-Commerce** - Amazon
- **Manufacturing** - Siemens, Foxconn
- **Agriculture** - IBM Watson
- **Entertainment** - Netflix
- **Cybersecurity** - Darktrace

## IndiaAI Mission

- **Objective** - Establish a robust AI computing infrastructure
- Enhance **data quality** and develop **indigenous AI technologies**
- Union Cabinet - March, 2024 - **Rs 10,372 Crores**
  - computing capacity of **> 10,000 GPUs & develop foundational models**
- **GPUs?** - critical - training & building large-scale AI models
- GPUs Procurement - **Indian startups - essential - CP**



## Challenges

- **Threatens Jobs:** Displacement - Routine Jobs, Vulnerability of Low-skilled Workers & Job Polarisation
- **Limited GPU Capacity and Infrastructure:**
  - High costs & Low Availability of GPUs
- **Data Access and Quality:** current datasets - inadequate - indigenous AI models.
- **Limited AI Expertise and High Costs:** shortage - skilled AI professionals
- **High Implementation Costs:** includes capital investments - infrastructure & integration
- **Infrastructure Deficiencies:** Deficit - advanced cloud computing infrastructure; AIRAWAT
- **Ethical and Integrity Concerns:** Datasets - biases; sensitive and personal data - privacy issue
- **Geopolitical and Regulatory Issues:** restrict access - essential AI technologies & components
- **Environmental Concerns:** significant energy; more heat - IEA - 1.3% to 3% electricity



# The AI Revolution: Is India Ready?



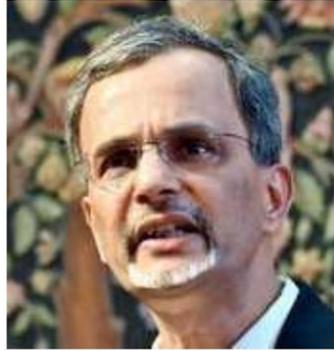
**CONTEXT:** In order to emerge as an AI Hub, India needs to significantly invest in its capacities.

## The Hindu Bureau

NEW DELHI

Chief Economic Advisor V. Anantha Nageswaran on Thursday cautioned private sector against possible over-deployment of artificial intelligence (AI) tools to the detriment of labour, saying India was a country that needed eight million additional jobs every year.

Speaking to a gathering of industry leaders at the Confederation of Indian Industry's Annual Business Summit 2025, Mr. Nageswaran said the deployment of end-to-end AI systems was a business policy choice and not inevitable, and companies could decide for themselves where



V. Anantha Nageswaran

to stop AI deployment and instead use labour.

Mr. Nageswaran's statements comes a day after TCS chairman N. Chandrasekaran spoke about how "the rise of autonomous robots and AI agents promises a future of 'dark factories' and AI-assisted enterprise functions".

- **Talent Gap:** internships, research projects, and faculty exchange; Incentives - better salaries

## Mains Practise Question:

*"Artificial Intelligence (AI) offers immense potential for India's growth, but it also brings significant challenges." Discuss the challenges posed by AI adoption in India and suggest a way forward to harness its benefits while minimizing its adverse impacts.*

**(15 Marks, 250 words)**

## Way Forward

- **Incentivize Hardware Manufacturing:** Expanding PLI Scheme - stimulate growth
- **Start-up Support:** financial incentives, mentorship; like T- Hub, Telangana.
- **Comprehensive Data Ecosystem:** centralised data repository - standardised formats & quality checks; encryption & data labelling
- **Prioritise Ethical AI:** Comprehensive AI ethics guidelines; independent AI ethics boards, regular AI audits
- **AI Applications - Societal Impact:** Identify - societal challenges & develop AI-driven solutions; Ensure equitable access to AI benefits
- **Promote Sustainable AI:** investing in energy-efficient AI algorithms and hardware; renewable energy sources for data centres



**CONTEXT:** Capturing, purifying, and converting CO<sub>2</sub> is energy-intensive and expensive.

## What is Carbon Capture and Utilisation (CCU)?

CCU refers to technologies that:

- Capture CO<sub>2</sub> emissions - industrial sources or directly from the atmosphere.
- Convert the captured CO<sub>2</sub> into useful products such as:
  - Fuels
  - Chemicals
  - Building materials
  - Polymers

## CCU vs Carbon Capture and Storage (CCS)

- **CCU** → Reuses captured CO<sub>2</sub> in economic processes.
- **CCS** → Permanently stores CO<sub>2</sub> underground without reuse.

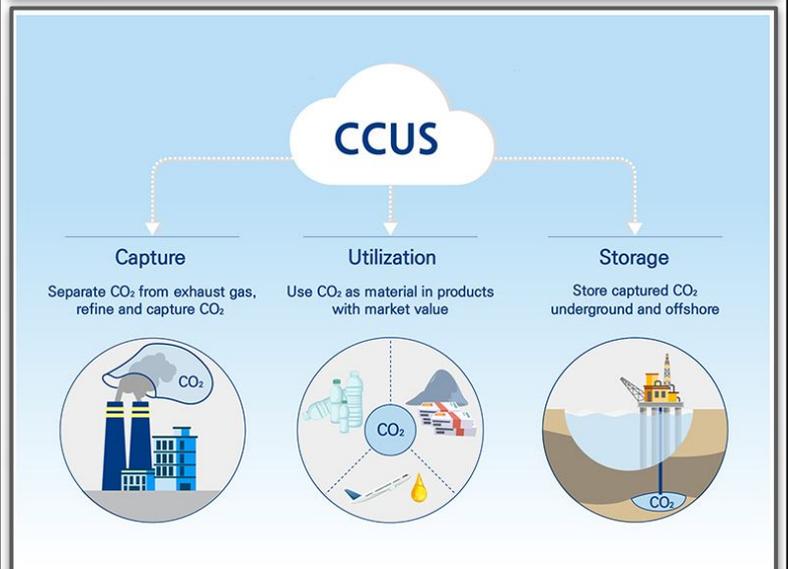
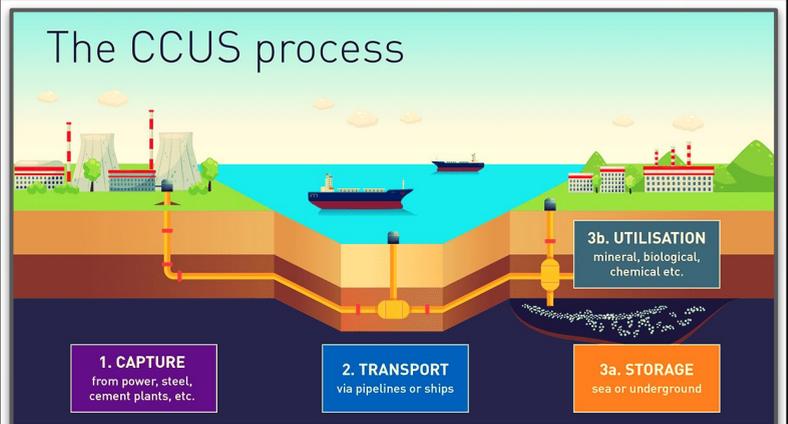
Thus, CCU contributes to a **circular carbon economy**, whereas CCS focuses primarily on emission containment.

## Why Does India Need CCU?

### (A) India's Emission Profile

- India is the **third-largest CO<sub>2</sub> emitter globally**.
- Major emitting sectors:
  - Power generation
  - Cement
  - Steel
  - Chemicals

Many of these are "**hard-to-abate sectors**" – industries where emissions are difficult to eliminate even with renewable energy.



### (B) Strategic Importance

CCU helps India:

- Reduce emissions from carbon-intensive industries
- Create new green industrial value chains
- Support its **Net Zero by 2070 commitment**
- Promote a **circular, low-carbon economy**

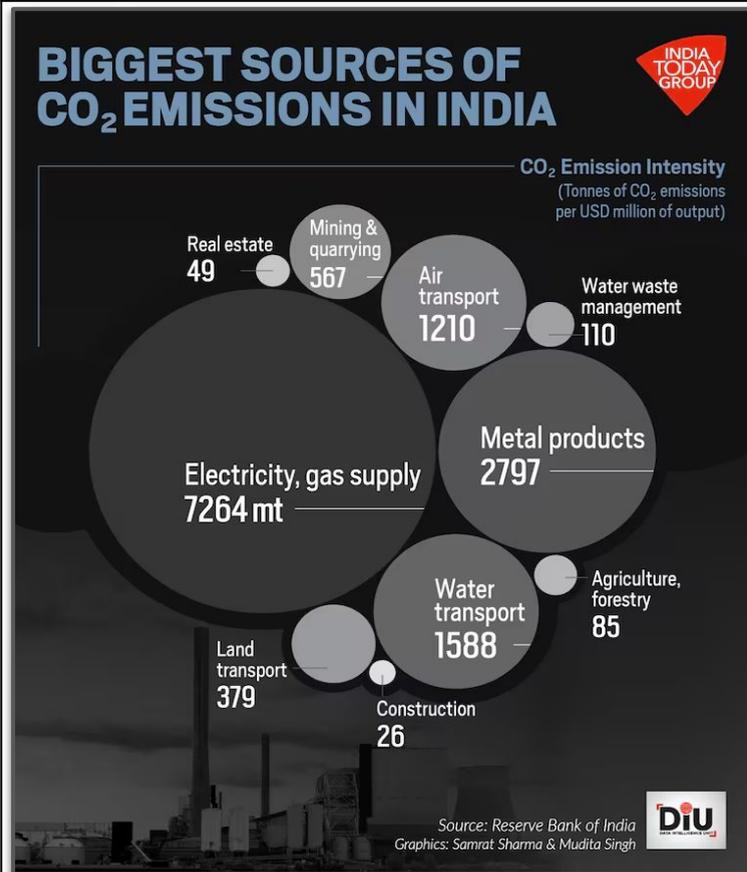
Thus, CCU is both an environmental and industrial policy tool.



# Carbon Capture and Utilisation (CCU)



**CONTEXT:** Capturing, purifying, and converting CO<sub>2</sub> is energy-intensive and expensive.



## India's Current Initiatives

### (A) Government Efforts

- Department of Science and Technology (DST)
- Draft 2030 CCUS Roadmap

### (B) Private Sector Initiatives

- **Ambuja Cements (Adani Group)** - Indo-Swedish CCU pilot with IIT Bombay.
- **JK Cement** - Developing a CCU testbed.
- **Organic Recycling Systems Limited (ORSL)** - India's first pilot-scale Bio-CCU platform.

## Global Developments in CCU

- **European Union (EU)** - EU Bioeconomy Strategy and Circular Economy Action Plan promote CCU.
- **United States** - Uses tax credits and funding incentives.

- **United Arab Emirates (UAE)** - Al Reyadah project integrates CCU with green hydrogen.

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Health Agriculture Water Waste Climate Air Africa Data Centre Video Gallery

Climate Change

### Budget 2026-27 sets aside Rs 20,000 crore to accelerate carbon capture in heavy industry

Investment aimed at bridging the gap between pilot projects and commercially viable, large-scale systems

## Key Risks and Challenges for India

### 1. Cost Competitiveness

- CO<sub>2</sub> capture and conversion is:
  - Energy-intensive
  - Capital-intensive

Without - Carbon pricing, Tax incentives & Green subsidies

CCU products may not compete with fossil-based alternatives.

### 2. Infrastructure Constraints

CCU requires: Industrial clustering, CO<sub>2</sub> transport systems & Integrated downstream manufacturing - India's industrial ecosystems are unevenly developed, limiting scalability.

### 3. Regulatory and Market Uncertainty

- No clear standards or certification framework
- Lack of demand signals
- Uncertain policy environment

This discourages private investment.



# Carbon Capture and Utilisation (CCU)



**CONTEXT:** Capturing, purifying, and converting CO<sub>2</sub> is energy-intensive and expensive.

## Way Forward

For CCU to succeed in India:

- Clear regulatory framework and certification standards
- Carbon pricing or incentive-based support
- Industrial cluster development
- Public-private partnerships
- Integration with green hydrogen and renewable energy

## Mains Practise Question:

*Explain the concept of CCUS and highlight the major challenges in scaling CCUS. Also suggest a robust way forward.*

**(10 Marks, 150 words)**



**SYLLABUS : Prelims:** Places/Events of Importance

**Newspaper :** The Hindu **Page No :** 16

## Treaty on Chagos deal paused for holding discussions with U.S., says U.K. Minister

**Sriram Lakshman**

LONDON

A bill operationalising a U.K.-Mauritius treaty – which recognises the sovereignty of Mauritius over the Chagos Archipelago – is currently on hold in the British Parliament while London holds discussions with Washington. The Indian Ocean islands are home to Diego Garcia, which houses a joint U.K.-U.S. military base.

The treaty, signed in May 2025, would transfer sovereignty over the archipelago to Mauritius, while

the U.K. would be given a 99-year lease for Diego Garcia and pay Mauritius an average annual amount of GBP 101 million.

“We will bring that [legislation] back to Parliament at the appropriate time. We are pausing for discussions with our American counterparts,” U.K. Foreign Office Minister Hamish Falconer said on Wednesday afternoon.

### Trump’s position

The treaty, negotiated over 11 rounds between Mauritius and the former Conservative U.K. government,

### The treaty, signed in May 2025, would transfer sovereignty over the archipelago to Mauritius

has come into question after U.S. President Donald Trump, who had earlier backed the treaty, changed his position and publicly called for it to be reconsidered in recent weeks. As recently as last week, Mr. Trump said Diego Garcia should not be given away and suggested it may be needed in the event of a

### U.S. strike on Iran.

“Nothing in the U.K.-Mauritius deal has changed since the U.S. administration approved it,” Mr. Falconer said.

The British government’s objective was to ensure that the base in Diego Garcia was secure in the long-term, Mr. Falconer told the House of Commons.

When the Labour government took office, it found that the U.K.’s ability to maintain control of the base was under threat and therefore it was compelled to act, as per the Minister.

**Chagos Archipelago**, island group in the central [Indian Ocean](#), located about 1,000 miles (1,600 km) south of the southern tip of the [Indian subcontinent](#). It has been [coterminous](#) with the [British Indian Ocean Territory](#) since 1976.



**SYLLABUS : Prelims:** Places/Events of Importance

**Newspaper :** The Hindu **Page No :** 16

## Geography

Lying at the center of the Indian Ocean region and out of the path of cyclonic storms, the archipelago is strategically located. It constitutes a semicircular group, open to the east, comprising the Salomon Islands, Peros Banhos atoll, Nelsons Island, the Three Brothers Islands, the Eagle Islands, Danger Island, the Egmont Islands, and **Diego Garcia atoll, the largest (17 square miles [44 square km]) and southernmost landmass in the group and the location of a major U.S.–U.K. military base.**

The archipelago is administered by a commissioner of the Foreign, Commonwealth, and Development Office in London. Although there is no permanent civilian population on the islands, generally about 4,000 U.S. and British military and contract civilian personnel are stationed there. The archipelago has a total land area of 23 square miles (60 square km).

## History

The islands, which were uninhabited when they were discovered by Portuguese explorers in the 16th century, were situated on [international trade](#) routes and became the focus of competing claims by European powers. In the late 18th century [France](#) took possession of the Chagos Archipelago and Seychelles as dependencies of Mauritius, and coconut plantations were established to produce [copra](#). Slaves were imported from Africa to work the plantations. In the early 19th century the British took over the islands. [Mauritius](#) and its dependencies were officially proclaimed a colony of [Britain](#) in 1814 under the [Treaty of Paris](#). Seychelles was later detached from Mauritius and became a separate colony of Britain in 1903.

During the [Cold War](#) an agreement between the governments of Britain and the [United States](#) led to the creation in 1965 of the [British Indian Ocean Territory](#) for the purpose of establishing defense and communications facilities to counterbalance the Soviet military presence in the region. The new territory comprised the [Aldabra Islands](#) and the Farquhar and Desroches islands, formerly part of the [Seychelles](#) colony, along with the Chagos [Archipelago](#), which had formerly been part of the Mauritius colony. **A major U.S.–U.K. military facility was built on [Diego Garcia](#) in 1971, and the plantations there were closed.** Between 1967 and 1973, Britain removed the Ilois, or Chagossians—inhabitants of the Chagos Archipelago who were descended from African slaves and Indian plantation workers. They were given the choice of resettlement in either Seychelles or Mauritius, which became independent in 1968; the majority chose the latter. A small number of Ilois went to the United Kingdom. In 1976 the islands obtained from Seychelles were returned when that colony became independent. Thereafter the British Indian Ocean Territory [comprised](#) only the islands of the Chagos Archipelago.

Expansion of the military facilities during the late 1970s and '80s was opposed by neighboring states, who viewed the base as compromising the nonmilitarized status of the Indian Ocean region. Numerous air strikes were launched from Diego Garcia during the [Persian Gulf War](#) (1990–91), the U.S.-led attacks on [Afghanistan](#) (2001), and the initial phase (2003) of the [Iraq War](#).



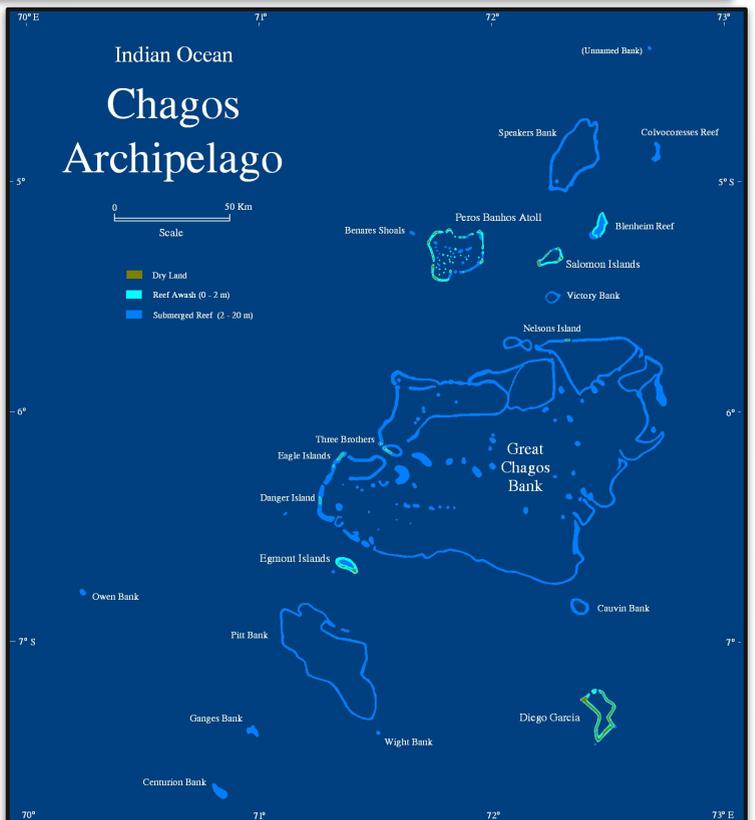
**SYLLABUS : Prelims:** Places/Events of Importance

**Newspaper :** The Hindu **Page No :** 16

## Sovereignty status and treaty developments

Discussion about the legality of the British government's actions in the 1960s and '70s regarding the Chagos Archipelago rose to the fore again when the [UN General Assembly](#) formally requested in 2017 that the UN's judicial organ, the [International Court of Justice \(ICJ\)](#), render an [advisory opinion](#) on whether the decolonization of Mauritius, with regard to the Chagos Archipelago, had been lawfully completed and what the consequences, under [international law](#), of British rule over the Chagos Archipelago were. During the proceedings, Mauritius stated that it had been forced to give up the islands of the Chagos Archipelago in exchange for its independence in 1968. The ICJ's ruling, which came in February 2019, found that the decolonization process had been illegal and recommended that the United Kingdom end its administration of the Chagos Archipelago as soon as possible, which would open the way for the return of the islands to Mauritius. As it was an advisory ruling, it was nonbinding, although it did carry significant international weight.

A [tentative](#) agreement to resolve the dispute was announced in October 2024, and a final treaty to transfer [sovereignty](#) to Mauritius was signed in May 2025. The treaty still awaits primary and secondary legislation before entering into force.



**SYLLABUS :** Prelims : Environment

**Newspaper :** The Hindu **Page No :** 05

## Eurasian diving duck's presence in Kaziranga National Park triggers climate change concern

**Rahul Karmakar**  
GUWAHATI

The seventh waterbird count at the Kaziranga National Park and Tiger Reserve in Assam released on Wednesday has spotlighted a new avian guest – a diving duck from the Eurasian taiga breeding grounds. However, the cheer for ornithologists and wildlife officials has come with some concern related to climate change.

“The smew (*Mergellus albellus*) signals wetland health in India, but its vagrant status flags climate-driven range shifts and the need to protect refuelling stops amid hunting and oil pollution threats,” said ornithologist Nilutpal Mahanta, a part of the waterbird census held from January 4 to 11.

A striking diving duck, the smew is a rare visitor to India. Sightings are sporadic and localised, mainly in northern or central Indian wetlands, including Haiderpur in Uttar Pradesh.

During the census, the smew was recorded at Rowmari-Donduwa beels



Smew, a Eurasian diving duck, spotted in Kaziranga National Park during the waterbird census in January 2026. SPECIAL ARRANGEMENT

in Laokhowa, part of the Kaziranga landscape covering 1,302 sq. km., and in the core areas of the park that are better known for its one-horned rhinoceroses.

The diving duck favours fish-rich, sheltered waters during winter, singly or in a small flock. Globally, there are an estimated 130,000 smews, but their number has been declining due to habitat loss and human activities.

### Fewer waterbirds

The enumerators recorded 105,540 individual waterbirds belonging to 107 species. The number was 6,522 individuals and 17 species fewer than what

the sixth waterbird count yielded in 2025.

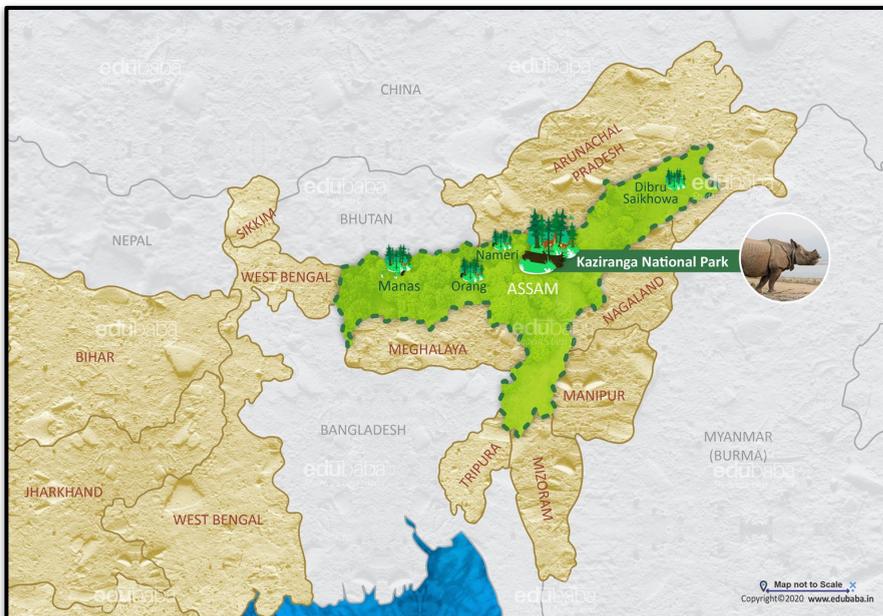
Officials downplayed the numerical dip. They said the arrival of the smew “underscores floodplain resilience for flyway migrants, guiding anti-encroachment efforts in the two Important Bird Areas (IBAs) in the Kaziranga landscape – the Kaziranga National Park and two wildlife sanctuaries, Laokhowa and Burhachapori, together.

“The first-ever sighting of the smew has stolen the spotlight in a record-breaking census of 105,540 birds. This spectacular dec- but reaffirms Assam’s wetlands and vital biodiversity hotspots,” Forest, Environ-

ment, and Climate Change Minister Chandra Mohan Patowary said.

This year’s survey, conducted by 120 enumerators and 50 volunteers, spanned 166 wetlands across 10 ranges of the tiger reserve. The recorded species included ducks or geese, waders, herons or egrets, and marsh birds. The top abundant species were the bar-headed goose, northern pintail, and lesser whistling duck. The census report highlighted targeted conservation needs with 18 critically endangered, endangered, vulnerable, and near-vulnerable species on the International Union for Conservation of Nature (IUCN) watchlists.

The top five wetlands by count were Laokhowa’s Rowmari Beel (15,661 birds), Donduwa Beel (14,469), Katakhal (4,979), Sohola (3,612), and Khalihamari (3,463). The top five wetlands by diversity were Rowmari (77 species), Donduwa (71), Sohola (69), Kawoimari-Bhoisamari-Diffulo (57), and Ververy (53).



**SYLLABUS : Prelims : Environment**

**Newspaper : The Hindu Page No : 05**

## About Kaziranga National Park

- **Location:** It is situated between the **Brahmaputra River** and the **Karbi (Mikir) Hills**, in Assam.
- It is the single largest undisturbed and representative area in the **Brahmaputra Valley floodplain**.
- In 1985, the park was declared a **World Heritage Site by UNESCO**.
- **Terrain:** It is of **sheer forest**, tall elephant grass, rugged reeds, marshes, and shallow pools.
- **Rivers:** The **River Difalu**, a tributary of the Brahmaputra, flows through the National Park while another tributary, **Moradifalu**, flows along its southern boundary.
- **Flora:** It is primarily famous for its **dense and tall elephant grasses** intermixed with small swamplands. It also includes an abundant cover of water lilies, water hyacinths and lotus.
- **Fauna:** It is home to species like Rhino, Tiger, Eastern swamp deer, Elephant, Buffalo, Hoolock gibbon, Capped langur,
  - The **Gangetic River dolphin** is commonly found in the habitat.
  - It is inhabited by the **world's largest population of one-horned rhinoceroses**, as well as many mammals.

The IBAs serve as conservation areas for protection of birds at the global, regional or sub-regional level. According to Birdlife International, designation of IBAs is based on standardized criteria, namely

1. hold significant numbers of one or more globally threatened bird species,
2. be one of a set of sites that together hold a suite of restricted-range species or biome-restricted species and
3. have exceptionally large numbers of migratory or congregatory birds.

The IBAs contain a range of habitats, such as wetlands, mudflats, microhabitats in biodiversity hotspots, grasslands and scrublands, making them excellent indicators of biodiversity richness (India's 5th National Report to the Convention on Biological Diversity, 2014).

- The Bombay Natural History Society (BNHS; [www.bnhs.org](http://www.bnhs.org)) And Birdlife International have identified 467 IBAs in India (Islam and Rahmani, 2004).
- Forty percent of these IBAs fall outside the PA network and thus form an important tool for landscape-level conservation planning. BNHS has also prepared a list of 96 new/potential sites which can be designated as IBAs in the future.



**SYLLABUS : GS 3: Environment**

**Newspaper : The Hindu Page No : 15**

## PMO meets on CAFE-3 norms

**Jagriti Chandra**  
NEW DELHI

The Prime Minister's Office (PMO) held a meeting on Wednesday to review the proposed carbon emission norms for passenger vehicles slated to take effect from 2027, though no final decision was reached.

A senior government official who was part of the high-level meeting said that there was "no final decision yet", on the contentious issue of draft Corporate Average Fuel Efficiency (CAFE)-3 norms which have divided small and big carmakers.

Officials of the Ministry of Power, Bureau of Energy Efficiency, and Ministry of Heavy Industries were part of the meeting.

Speaking to reporters on the sidelines of a FICCI event, Minister for Heavy Industries H.D. Kumaraswamy said about the proposal, "We already had a meeting with stakeholders and Power Ministry. The Power Ministry, according to my information, sent the proposal to the PMO."

On contents of the proposal, he said, "whatever best way we have to encourage for electric mobility, we are going to take."

### Revised draft

The Bureau of Energy Efficiency recently circulated a revised draft of the CAFE III norms to the industry after the earlier version released in September last year triggered divisions among automakers with larger vehicle manufacturers opposing certain relaxations extended to small-



No final decision was taken on CAFE-3 norms.

car makers.

The latest proposal, shared with car manufacturers but not yet made public, has removed the 3 g CO<sub>2</sub>/km waiver for cars weighing up to 909 kg and with engine capacity not exceeding 1200 cc. It has also made the emission slope flatter. Against the initial 0.002 value for all five years, the new proposal is 0.00153 in year one, followed by an annual reduction so as to reach 0.00128 in the fifth year. This means permissible emissions for heavier vehicles are lower than before, while small cars get some relief.

Addressing the third FICCI National Conference on Electric Vehicles, Mr. Kumaraswamy said, "electric mobility today is not merely a climate initiative, it is an industrial strategy, a manufacturing opportunity, supply-chain recalibration and a technological leap." Citing the progress of the ₹10,900 crore PM E-DRIVE scheme, he said as of February, over 28 lakh EVs have been sold under the scheme.

- India plans to implement the third phase of **Corporate Average Fuel Efficiency (CAFE 3)** norms from FY28–FY32 to **improve fuel efficiency** and reduce carbon emissions from passenger vehicles.
- However, the weight-based structure of the new norms has triggered **significant disagreement** within the auto industry, especially between manufacturers of small cars and those with a portfolio dominated by heavier SUVs.

## Background

- **What are CAFE norms?**
  - CAFE norms **regulate** average **fuel consumption** and CO<sub>2</sub> emissions across a manufacturer's fleet.
  - It proposes a movement from the current Modified Indian Driving Cycle (MIDC) to the Worldwide Harmonised Light Vehicles Test Procedure (WLTP), which the European Union adopted in 2018.
  - India follows a **weight-based formula** that becomes progressively stricter each year.
- **CAFE 3:**
  - It introduces a new weight-based efficiency formula –  $0.002 \times (W - 1170) + c$ .
  - Here **W** is the average fleet weight, 1,170kg is the fixed constant for weight, 0.002 is a fixed constant multiplier, and '**c**' is a constant that changes every year.
  - Since '**c**' continues to decrease from FY28 to FY32, the rules will become stricter over time.

## Why the Industry Is Divided

- **Impact of the weight-based formula:**
  - Lighter cars face steeper efficiency improvements than heavier ones.
  - **Example:** A 740 kg car needs to become 48% more efficient by FY32. A 2,500 kg SUV needs only 25% improvement, despite higher absolute emissions.
  - **Result:** Greater regulatory burden on small, budget cars.
- **Small-car manufacturers' concerns:**
  - **Disproportionate impact:** Small cars operate on low margins and cannot easily absorb the cost of: hybrid systems, electrification, lightweighting technologies.
  - **Consumers may be priced out:** Stricter norms may raise costs of entry-level cars. Could discourage first-time buyers and shrink the affordable car segment.
  - **Distortion of CAFE's original intent:** Maruti Suzuki argues CAFE was meant to push big cars to improve fuel efficiency, not punish small cars.
- **Why some carmakers support CAFE 3:**
  - **Tata Motors' stance:** Claims no concerns in achieving the norms. Rejects weight-based definitions of small cars as "**Arbitrary**", potentially compromising safety standards.
  - **Others (Mahindra, Tata):** Oppose higher exemptions for lighter cars.





**SYLLABUS : GS 2: Constitution**

**Newspaper : The Hindu Page No : 13**

## EC proposes synergy with SECs to align electoral processes

**The Hindu Bureau**  
NEW DELHI

The Election Commission has proposed to work out mutually acceptable mechanisms and legally viable frameworks with all State Election Commissions across the country to synergise election-related processes, including the sharing of electronic voting machines (EVM), electoral rolls, and the ECINET digital platform.

At a national round table conference of the EC and State Election Commissioners, which concluded in New Delhi on Tuesday, a declaration was adopted stating that EC and SECs would work together to synergise the laws governing elections to panchayats and municipal bodies with those relating to elections to Parliament and State legislatures, and strengthen cooperation to

### Commission moots sharing of EVMs, electoral rolls and the ECINET digital platform

further national and constitutional interest, according to an official statement issued by the EC on Wednesday.

The State Election Commissions from 30 States participated in the conference, chaired by Chief Election Commissioner Gyanesh Kumar. The SECs affirmed that the preparation of pure electoral rolls formed the bedrock of democracy and that transparent and efficient conduct of elections strengthened democratic institutions.

Mr. Kumar too highlighted the importance of strengthening institutional coordination between the EC and SECs.

## State Election Commission Constitutional Provisions

The State Election Commission is a constitutional body established to ensure free and fair elections to local self-government institutions. Its constitutional basis is provided under Part IX and Part IXA of the **Indian Constitution**, which empower the SEC to conduct elections to Panchayats and Municipalities.

State Election Commission Constitutional Provisions			
Constitutional Provision	Part of Constitution	Subject Matter	Features
Article 243K	Part IX (Panchayats)	State Election Commission for Panchayats	Vests superintendence, direction, and control of preparation of electoral rolls and conduct of Panchayat elections in the SEC
Article 243ZA	Part IXA (Municipalities)	State Election Commission for Municipalities	Empowers SEC to supervise electoral rolls and conduct elections to Municipal Bodies
73rd Constitutional Amendment Act, 1992	Part IX	Rural Local Self-Government	Gave constitutional status to Panchayats and provided for SEC

74th Constitutional Amendment Act, 1992	Part IXA	Urban Local Self-Government	Gave constitutional status to Municipalities and strengthened SEC role
Governor's Role	Articles 243K & 243ZA	Appointment & Service Conditions	Governor appoints the State Election Commissioner and determines service conditions subject to state law
Removal Safeguard	Article 243K	Independence of SEC	State Election Commissioner can be removed only in the same manner and on the same grounds as a High Court Judge
State Legislature's Power	Articles 243K(4) & 243ZA(2)	Law-making power	State Legislature may make laws relating to local body elections, subject to the Constitution



**SYLLABUS : GS 2: Constitution**

**Newspaper : The Hindu Page No : 13**

## State Election Commission Composition

The State Election Commission is generally headed by a State Election Commissioner, assisted by such officers and staff as provided under the laws of the respective state. The structure and size of the Commission vary from state to state, but it functions as an independent constitutional authority for local body elections.

## State Election Commission Appointment and Removal

The State Election Commissioner is appointed by the Governor of the State, as provided under Articles 243K and 243ZA of the Constitution. The conditions of service, tenure, and qualifications of the Commissioner are prescribed by state laws, ensuring a formal and legal appointment process.

- Appointed by the Governor
- Service conditions and tenure decided by state law
- Cannot be removed except in the **same manner and on the same grounds as a High Court Judge**
- Service conditions cannot be changed to the disadvantage of the Commissioner after appointment

## State Election Commission Power and Functions

- Conducts elections to **Panchayats and Municipal Bodies** in the state
- Supervises the **preparation, revision, and updating of electoral rolls** for local elections
- Issues **election notifications, schedules, and guidelines**
- Ensures **free, fair, and transparent** local body elections
- Enforces the **Model Code of Conduct** during local elections
- Carries out **delimitation of constituencies** for local bodies before elections
- Registers and deregisters **political parties** for local body elections (as per state laws)
- Oversees **nomination, polling, counting of votes, and declaration of results**
- Resolves election-related issues and disputes within its jurisdiction



**SYLLABUS : GS 2: Health:**

**Newspaper : The Hindu Page No : 05**

## Meghalaya has the highest HIV caseload in India, says Minister

**Rahul Karmakar**  
GUWAHATI

Meghalaya currently has the highest human immunodeficiency virus (HIV) caseload in the country, State's Health Minister Wailadmiki Shylla told the Assembly on Wednesday.

Replying to a question by National People's Party MLA Mehtab Chandee A. Sangma, he said 10,293 people living with HIV were receiving antiretroviral treatment. "The government has sanctioned a ₹25-crore intervention programme for the next five years to address the alarming rise in HIV/AIDS cases," Mr. Shylla said.

He said 949 deaths linked to the virus have been recorded in the State over the past decade, with the East Khasi Hills district

reporting 435 of these cases.

Mr. Shylla, however, clarified that all reported deaths were attributed to opportunistic infections and not directly to HIV/AIDS. He cited the provisions of confidentiality in the HIV and AIDS (Prevention and Control) Act of 2017 and prevailing social stigma as the major challenges in addressing the issue. "Early detection and intervention get complicated because testing requires consent and treatment cannot be forced."

Mr. Shylla said the department has been intensifying awareness campaigns to improve testing and treatment. He said the government has been collaborating with community stakeholders to encourage testing and treatment.

## Core Goals of NACP-V (2021-26)



### GOAL

- 01 Reduce annual new HIV infections by 80% (from 2010 baseline)
- 02 Reduce AIDS-related mortalities by 80% (from 2010 baseline)
- 03 Eliminate vertical transmission of HIV and syphilis (mother-to-child)
- 04 Promote universal access to Quality STI/RTI services for at-risk and vulnerable populations
- 05 Eliminate HIV/AIDS-related stigma and discrimination

In operational targets, this includes aiming for 95-95-95 coverage: 95% of people at risk use prevention, 95% of HIV-positive know their status, 95% of those are on treatment, 95% of those achieve viral suppression.

Also, for pregnant and breastfeeding women living with HIV—ensuring suppressed viral to enable elimination of vertical transmission.

Source : National AIDS and STD Control Programme Phase-V (2021-26) Booklet

## What is Human Immunodeficiency Virus (HIV)/AIDS?

- **About:** HIV is a **virus** that attacks the **immune system**, primarily damaging **CD4 cells (white blood cells)**, weakening the body and making it vulnerable to **infections** and **cancers**.
- **Transmission:** Occurs via direct contact with infected **bodily fluids (blood, semen, breast milk, vaginal fluids)** like **unprotected sex, shared needles, or unsterilized tattooing**. It is not spread through **casual contact**.
- **Symptoms:** Early signs include **fever** and **rash**. Later stages may involve **swollen lymph nodes, weight loss, and diarrhea**. Severe HIV can lead to **opportunistic illnesses** such as **tuberculosis, meningitis, and cancers** like **lymphoma**.
- **Treatment:** There is no **cure**. However, lifelong daily **Antiretroviral Therapy (ART)** effectively controls the **virus**.
- **Global Response:** UN **Sustainable Development Goal 3.3** aims to **end the HIV epidemic as a public health threat by 2030**.



**Q1. Consider the following statements regarding the Chagos Archipelago:**

1. It is located south of the Maldives in the Indian Ocean.
2. Diego Garcia, part of the Chagos Archipelago, hosts a joint military base of the United Kingdom and the United States.

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

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

**Answer: c**

**Q2. Consider the following statements regarding Kaziranga National Park:**

1. It is situated between the Brahmaputra River and the Karbi (Mikir) Hills in Assam.
2. It is designated as a UNESCO World Heritage Site.
3. It is home to the world's largest population of Asiatic lions.

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

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

**Answer: a**

**Q3. With reference to India's proposed Corporate Average Fuel Efficiency (CAFE) norms, consider the following statements:**

1. CAFE norms regulate average fuel consumption and CO<sub>2</sub> emissions from passenger vehicles.
2. Under the CAFE regime, manufacturers are required to meet the same fuel efficiency target for every vehicle, regardless of its weight class.

**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

**Answer: a**

**Q4. Consider the following statements regarding the State Election Commission:**

1. The structure and size of the State Election Commission are uniform across all States.
2. The State Election Commissioner is appointed by the Governor of the State.
3. The State Election Commission conducts elections to Panchayats, Municipalities, and State Legislative Assemblies.

**Which of the statements given above is/are NOT correct?**

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

**Answer: c**

**Q5. Consider the following statements regarding HIV/AIDS:**

1. It primarily attacks the CD4 cells, which are red blood cells, of the human immune system.
2. Antiretroviral Therapy completely cures HIV infection.
3. United Nations Sustainable Development Goal 3.3 aims to end the epidemics of AIDS as a public health threat by 2030.

**How many of the statements given above is/are correct?**

- a) Only One
- b) Only Two
- c) All Three
- d) None

**Answer: a**





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