

Holding the Court accountable amid democratic strain

Prelims: General Studies Paper - 1
Indian Polity and Governance-Constitution, Political System, Panchayati Raj, Public Policy, Rights Issues, etc.

Mains: General Studies - 2
Structure, organization and functioning of the Executive and the Judiciary—Ministries

1. What is the issue?

- The **Special Intensive Revision (SIR)** of electoral rolls by the **Election Commission of India (ECI)** has raised concerns over the **possible exclusion of eligible voters**.
- Twenty-three Opposition parties** wrote to the **Chief Justice of India (CJI)** expressing concerns about the **fairness** and **burden** of the SIR process.
- The issue has also raised questions about the **Supreme Court's role** in reviewing the exercise.

2. Why has the SIR exercise been criticised?

- Critics argue that the **documentation requirements** and **strict timelines** may make it difficult for many eligible citizens to remain on the **electoral rolls**.
- Concerns have been raised that the process could disproportionately affect **migrants, women, poor, and marginalised communities**.
- The exercise has also been criticised for creating **uncertainty** regarding citizens' **voting rights**.

3. What are the concerns regarding the Supreme Court's role?

- Critics argue that the **Supreme Court** did not decide **time-sensitive electoral disputes** before the process progressed, **as seen in the Bihar SIR case**.
- The Court was also criticised for **overseeing** certain

aspects of the SIR process instead of limiting itself to **judicial review**

- Through its **interim orders and directions**, the Court was seen as **helping supervise the SIR process** instead of **only reviewing its legality**.
- Critics argue that the Court **did not adequately examine** concerns over **excessive documentation, strict timelines**, or the practical difficulties faced by **illiterate, poor, and socially disadvantaged** voters.

4. What are the broader concerns?

- Delayed judicial decisions in **time-sensitive electoral matters** may reduce the effectiveness of **judicial review**.
- Free and fair elections require both **independent institutions** and **easy access to voting** for all eligible citizens.
- Strengthening **institutional accountability** and protecting the **right to vote** remain essential for a healthy democracy.

The right path for India's nuclear power development

Prelims: General Studies Paper - 1
Current events of national and international importance

Mains: General Studies - 3
Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

1. How has India built a self-reliant and cost-competitive nuclear sector?

- Post-1974 nuclear test** ("Smiling Buddha") **sanctions pushed India to indigenously develop nuclear technologies** and components.
- The **India-U.S. Civil Nuclear Deal (2008)** eased **restrictions on uranium** and nuclear plant imports.
- India developed reactor capacities** from **200 MW to 500 MW and now 700 MW units**.

- **Indian nuclear plants cost about \$1,700/kW**, compared with \$2,200 in South Korea, \$5,500 in France and \$15,000 in the U.S.
- **India's cost advantage gives it the potential to become a major exporter** of nuclear power plants.

2. Why should India prioritise indigenous nuclear technology while scaling up capacity?

- India **aims to achieve 100 GW of nuclear power capacity by 2047**.
- India **manufactures Pressurised Heavy Water Reactors (PHWRs)** using natural uranium.
- Its 500 MW commercial fast breeder reactor is being commissioned after overcoming technological challenges.
- **India should develop indigenous Light Water Reactors (LWRs)**, as the Nuclear Suppliers Group (NSG) waiver restricts the transfer of uranium enrichment.

Pressurised Heavy Water Reactor: A nuclear reactor that uses heavy water (deuterium oxide) as coolant and moderator and natural uranium as fuel.

Light Water Reactor: A nuclear reactor that uses ordinary water as coolant and moderator and enriched uranium as fuel.

- **Domestic technology can reduce electricity costs, technological dependence** and benefit from economies of scale.

Nuclear Suppliers Group (NSG): Formed in 1975, the NSG is a 48-member nuclear export-control group that regulates nuclear trade to prevent proliferation. India is not an NSG member.

3. What approach should India adopt towards Small Modular Reactors (SMRs)?

Small Modular Reactor: A small, modular nuclear reactor, generally with a capacity of up to 300 MW per unit, designed for factory fabrication and flexible deployment.

- **SMRs are being considered globally to meet large power requirements of AI data centres.**

- **Most SMR designs are still under development** and lack commercial operating experience.
- The **Atomic Energy Commission (AEC) has offered indigenous 200 MW nuclear technology** to new entrants.
- Smaller reactors can be developed through partnerships between the AEC and Indian firms.
- Foreign SMRs should be deployed only after demonstrating safe and reliable operation abroad for several years.

4. What safeguards are needed for India's nuclear power expansion?

- **India's exemplary nuclear safety record must be preserved** during rapid expansion.
- **New public and private entrants** should initially develop **only a limited number of plants**.
- **Operators must establish a rigorous internal nuclear safety culture** with continuous external audits.
- A major accident could trigger public opposition, as witnessed after Chernobyl in 1986.
- India should scale up gradually to 100 GW by 2047, **balancing safety, self-reliance and global competitiveness**.

Can biogas aid India's energy security?

Prelims: General Studies Paper - 1

Current events of national and international importance

Mains: General Studies - 2

Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

1. Why is India promoting Compressed Biogas (CBG)?

- India imports nearly **85% of its crude oil requirements**, mainly from **West Asia**, making energy security vulnerable to geopolitical tensions. Around **90% of India's LPG imports pass through the Strait of Hormuz**, increasing risks during regional conflicts.
- To reduce dependence on imported fuels, India is promoting **Compressed Biogas (CBG)**.

CBG (Compressed Biogas) is a renewable, carbon-neutral fuel produced from **organic waste (such as agricultural residue, animal manure, municipal solid waste, and sewage)** and can substitute **Compressed Natural Gas (CNG)** in transport, cooking and power.

- It also helps in **managing agricultural waste** and creating **additional income opportunities for rural communities**.

2. What are India's initiatives and challenges in CBG development?

- The **Sustainable Alternative Towards Affordable Transportation (SATAT)** initiative, launched in **2018**, aimed to establish **5,000 CBG plants by 2023**, but only **132 plants were completed by June 2026**.
- The **Galvanising Organic Bio-Agro Resources Dhan (GOBARdhan)** scheme promotes **waste-to-wealth** through community biogas plants by providing grants up to **₹50 lakh per district**, along with funding support for **biomass collection machinery and gas pipelines**.
- Despite policy support, CBG growth remains slow due to **lack of infrastructure, limited private investment, difficulties in accessing credit and high initial costs**.
- Greater **financial assistance, tax incentives and measures like accelerated depreciation** can encourage **private sector participation**.

3. What are the global experiences and concerns related to biogas?

- Europe, China and the United States account for around 90% of global biogas production**, with **Germany** emerging as a major producer after introducing the **Renewable Energy Sources Act (2000)**.
- Germany's biogas expansion encouraged maize cultivation, leading to **"corn mania"**, where maize replaced food crops and affected **crop diversity**. The government later introduced restrictions on maize use in biogas plants.
- India faces a similar concern as the **Economic Survey 2026** noted a sharp rise in **maize cultivation**, which may affect **food security and crop diversity**.
- Denmark's model** promotes biomethane production mainly from **livestock manure and agricultural waste** rather than food crops.

4. What is India's roadmap for expanding CBG?

- In **2023**, the **National Biofuels Coordination Committee (NBCC)** approved **mandatory CBG blending obligations**, requiring gas distributors to blend **1% CBG from FY26 and increase it to 5% by FY29**.
- The government plans phased blending of CBG in **Compressed Natural Gas (CNG) for transport** and **Piped Natural Gas (PNG) for domestic use**.
- India aims to replicate the success of its **ethanol blending programme**, where blending increased from **1.5% in 2014 to 20% by December 2025**, five years ahead of the original target.
- For CBG to succeed, India needs **better waste collection systems, increased private investment, financial incentives and focus on waste-based feedstock** to protect **food security and crop diversity**.

What is the India-Australia uranium supplies agreement?

Prelims: General Studies Paper - 1

Current events of national and international importance

Mains: General Studies - 2

Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

1. What is the recent India-Australia uranium export agreement?

- During **Prime Minister Narendra Modi's visit to Australia**, India and Australia finalised the **"administrative arrangements"** required for **uranium exports from Australia to India** under the **Australia-India Nuclear Cooperation Agreement, 2015**.
- The uranium exports will be used **only for peaceful purposes** and will remain under **International Atomic Energy Agency (IAEA) safeguards**.
- The arrangement allows **private Australian mining companies** to enter into commercial contracts with **Indian private sector companies and joint ventures** for uranium supply.
- This development gained importance after the **SHANTI Act (2025)**, which opened India's **nuclear sector to greater private sector participation**.

The **SHANTI Act, 2025** is a **major nuclear sector reform law** that **modernises governance, enables private participation, reforms liability rules, and strengthens regulation** to accelerate **clean energy expansion in India**

- The initial uranium exports were considered a **“test run”** due to concerns regarding supply to a **non-NPT country**.
- The latest **administrative arrangements** indicate a move towards **larger commercial uranium supplies**.

2. Why is uranium import from Australia significant for India?

- Australia possesses **more than one-fourth of the world's uranium reserves** and has traditionally maintained strict controls on uranium exports to **non-Nuclear Non-Proliferation Treaty (NPT) member countries**.
- India is **not a signatory to the NPT**, but Australia allowed uranium exports due to India's:
 - ➔ **Strong nuclear non-proliferation record**
 - ➔ **Expanding civil nuclear energy programme**
 - ➔ **Commitment to IAEA safeguards**

NPT (Nuclear Non-Proliferation Treaty, 1968) is an **international agreement** aimed at preventing the spread of **nuclear weapons**, promoting **peaceful use of nuclear energy**, and encouraging **disarmament under IAEA safeguards**. India is **not a signatory** as it considers the treaty **discriminatory**, since it allows only a **few countries to possess nuclear weapons** and does not ensure **universal disarmament**.

- India signed an **IAEA safeguards agreement in 2008** after the **India-U.S. Civil Nuclear Agreement**.

3. How did India and Australia reach this agreement?

- During **Australian Prime Minister Kevin Rudd's visit to India in 2009**, both countries discussed:
 - ➔ **Energy security**
 - ➔ **Nuclear cooperation**
 - ➔ **Expansion of bilateral energy trade**
- These discussions resulted in the **Australia-India Nuclear Cooperation Agreement**, signed in **2014** and operationalised in **2015**.
- Under this agreement, Australia began supplying uranium to India, with around **300 tonnes exported since 2018**.

4. What is the importance of this development for India's energy security?

- India's energy sector faces challenges due to geopolitical tensions, including the **U.S.-Israel attack on Iran**, which has increased uncertainty in global energy markets.
- India is diversifying energy sources by increasing hydrocarbon imports from countries such as **Russia, the United States and Venezuela**, while expanding **nuclear energy capacity**.
- Uranium imports from Australia will support India's **long-term nuclear energy programme** and reduce dependence on conventional fuels.
- Greater involvement of **private companies and joint ventures** can accelerate **nuclear capacity expansion**.

KEYWORDS

Atomic Energy Commission (AEC)

- The Atomic Energy Commission (AEC) is the **governing body of the Department of Atomic Energy (DAE), Government of India**.
- The **AEC was first constituted in August 1948 under the Department of Scientific Research** and was **subsequently established in the DAE through a Government Resolution dated March 1, 1958**.
- The **AEC is responsible for formulating the policies of the Department of Atomic Energy**.
- The **Secretary to the Government of India in the DAE serves as the ex-officio Chairman of the AEC**.
- Other **AEC members are appointed for each calendar year on the Chairman's recommendation and with the Prime Minister's approval**; its **headquarters is in Mumbai, Maharashtra**.

UMANG (Unified Mobile Application for New-age Governance)

- **UMANG** is a **Digital India** initiative to promote **mobile governance** and improve the **ease of living**.
- It is developed by the **Ministry of Electronics and Information Technology (MeitY)** and the **National e-Governance Division (NeGD)**, and was **launched on 23 November 2017**.
- It provides a **single platform** to access **e-Governance services** offered by the **Central Government, State Governments, local bodies, and autonomous/statutory bodies**.
- **UMANG** is available through **Android, iOS, and the web**, enabling citizens to access government services **anytime and anywhere**.
- The platform currently offers around **1,745 services** from about **80 Central Ministries/ Departments & Autonomous Bodies** and **30 States**, with a user base of over **5.58 crore** citizens.

SHANTI Act, 2025

- The **SHANTI Act, 2025 (Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India)** is in news as **NITI Aayog** is conducting **stakeholder consultations** to finalize its **operational framework**, especially on **FDI policy** and **domestic supply chains**.
- The Act **ends the long-standing state monopoly** of **Nuclear Power Corporation of India Limited (NPCIL)** (under the **1962 framework**), allowing **private sector participation** in **building and operating nuclear power plants**.
- To balance **investment and national security**, the Act caps **Foreign Direct Investment (FDI)** at **49%** in **private nuclear power projects**.
- It upgrades the **Atomic Energy Regulatory Board (AERB)** into a **statutory body accountable to Parliament**, ensuring **independent and transparent nuclear safety oversight**.
- The reform aligns with India's long-term goal of achieving **100 GW nuclear power capacity by 2047**, strengthening **clean energy transition** and **energy security**.

Devva Habba Festival

- The **Devva Habba Festival** is in the news as the **Badaga community** celebrated it in the **forests of Udhagamandalam (Tamil Nadu)** as a **traditional harvest thanksgiving festival**.
- Meaning **"Festival of the Gods,"** it is one of the **most significant cultural celebrations** of the **Badaga people**, spread across nearly **400 villages (hattis)** in the **Nilgiri Hills**.
- A key highlight is the **ancient fire ritual "Niligolu,"** where a **sacred fire is created from scratch** using **wooden sticks or flint stones (Chikkimukki kallu)**.
- As part of **harvest thanksgiving**, people **roast freshly harvested crops (especially potatoes)** over the sacred fire and offer them to **ancestral deities for prosperity**.
- The festival strengthens **social and cultural unity**, featuring **collective prayers and processions**, with participants wearing **traditional white attire-Thundu and Seeley**.

Places In News

Badrinath Dham



- **Badrinath Dham** is one of the **holiest Hindu pilgrimage sites** in India and is part of the **Char Dham Yatra** in **Uttarakhand**.
- The temple is dedicated to **Lord Vishnu** and is believed to have been established by **Adi Shankaracharya** in the **8th century CE**.

- According to **Hindu mythology**, **Lord Vishnu** meditated here under a **Badri tree**, while **Goddess Lakshmi** took the form of a **berry tree** to protect him.
- The temple is situated at an altitude of about **3,133 metres** on the banks of the **Alaknanda River**, surrounded by the **Nar** and **Narayan** mountain ranges.
- The **main entrance**, known as **Singhdwar**, leads to the temple, which has three main sections: the **Garbha Griha (Sanctum Sanctorum)**, **Darshan Mandap**, and **Sabha Mandap**.
- The main deity, **Lord Badari Narayan**, is depicted with the **Conch (Shankha)** and **Chakra** in two raised hands, while the other two hands are in a **Yogic meditation posture**.
- An idol of **Garuda**, the **Vahana (vehicle)** of **Lord Vishnu**, is installed **opposite the main deity** in a **praying posture** with folded hands.
- The temple is also famous for **Tapt Kund**, a **natural hot water spring** believed to possess **medicinal properties**.

