Prelims Exam Topics

BHAVYA SCHEME

Context

BHAVYA (Bharat Audyogik Vikas Yojna) is a Central Sector initiative focused on creating modern industrial parks capable of attracting domestic and global investments. Recently, the Union Government released operational guidelines for the scheme.

Key Features of the BHAVYA Scheme

- **World-Class Industrial Infrastructure**: The scheme aims to create globally competitive, investment-ready industrial parks across the country.
- **Integrated Manufacturing Ecosystems**: Focus is placed on developing plug-and-play infrastructure, multimodal logistics connectivity, reliable utilities, worker-support facilities, digital governance systems, and sustainable industrial infrastructure.
- **Support to National Initiatives**: BHAVYA complements the objectives of the **Make in India** and **PM Gati Shakti** programmes by strengthening manufacturing and logistics capabilities.
- **Greenfield and Brownfield Development**: The scheme allows the establishment of both new industrial parks and the upgradation of eligible existing industrial zones.
- **Land Requirement Criteria**: Minimum land area has been fixed at 100 acres for non-hilly states and 25 acres for hilly states, Northeastern states, Union Territories, and smaller states.
- **Large-Scale Development Target**: The programme seeks to develop 100 industrial parks over a six-year period from 2026–27 to 2031–32.
- **SPV-Based Implementation Model**: Execution of projects will take place through Special Purpose Vehicles (SPVs) incorporated under the Companies Act, 2013.

POM POM ISLAND AND CORAL TRIANGLE

Context

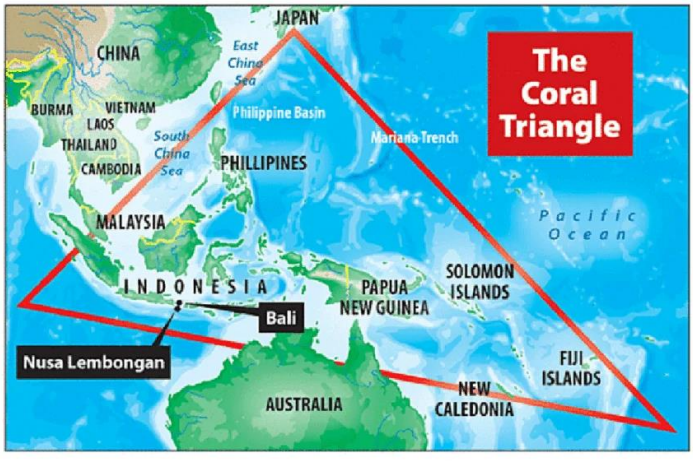
Artificial coral reef structures were installed near **Pom Pom Island** in the biodiversity-rich **Coral Triangle** region.

About Pom Pom Island

- **Country & Location:** Small coral reef island in Sabah, East Malaysia, located in the Celebes Sea off northeastern Borneo.
- **Nearby Islands:** Located near Sipadan, Mabul, Mataking, Kapalai, Timba-Timba and Kalapuan islands.
- **Neighbouring Water Bodies:** Surrounded by the Celebes Sea; located within the wider Indo-Pacific marine region.
- **Marine Biodiversity:** Known for coral reefs, green turtles, hawksbill turtles, reef fish and macro marine species.
- **Environmental Threats:** Coral reefs damaged by blast fishing, coral bleaching and warming ocean temperatures.
- **Economic Importance:** Important centre for eco-tourism, scuba diving and marine conservation activities.

About Coral Triangle

- **Location:** Marine biodiversity hotspot spread across Southeast Asia and western Pacific Ocean.
- **Countries Covered:** Indonesia, Malaysia, Philippines, Papua New Guinea, Solomon Islands and Timor-Leste.



- **Biodiversity:** Contains nearly 75% of world's coral species and over 2,000 reef fish species.
- **Importance:** Supports fisheries, tourism, coastal protection and food security for millions of people.
- **Major Threats:** Coral bleaching, ocean warming, overfishing, pollution and destructive fishing practices

EARTH'S OUTER CORE FLOW REVERSAL

Context

Researchers discovered that molten iron flow in Earth's outer core beneath the Pacific Ocean reversed direction around 2010, revealing unexpected changes deep inside Earth.

New Findings on Earth's Outer Core

- **First Flow Pattern – Westward Drift:** The study found that nearly 95% of outer-core movement consisted of a slow westward flow of molten iron. This explains the long-observed westward drift of Earth's magnetic field.
- **Second Flow Pattern – Eastward Surge:**
    - Researchers identified another smaller but dramatic flow pattern in which molten iron beneath the equatorial Pacific Ocean shifted from westward movement to rapid eastward flow around 2010.
    - **Weakening After 2020:** The eastward surge was found to weaken gradually after around 2020.
    - **Link with Inner Core Changes:** The sudden reversal was associated with seismic and geodetic changes occurring in Earth's solid inner core.
    - **Flow Imbalance:** Outer-core flow was found to be nearly 10% asymmetrical between the northern and southern hemispheres.

- **Scientific Importance:** The findings may explain sudden "magnetic jerks" in Earth's magnetic field and show that deep-Earth liquid movements can change faster than previously understood.

About Earth's Outer Core

- **Location:** Liquid layer between mantle and inner core, about 2,800 km below Earth's surface.
- **Composition:** Mainly molten iron and nickel.
- **Geodynamo Process:** Continuous movement of molten metals generates Earth's magnetic field.
- **Importance:** Earth's magnetic field protects the planet from harmful solar radiation and charged particles.

GOOGLE'S 'INFORMATION AGENTS'

Context

Google introduced "Information Agents" as AI-powered tools that continuously monitor the web and perform personalised tasks for users.

About the Information Agents

- **Meaning:** Autonomous AI tools that track and gather information for users automatically.
- **Function:** Continuously monitors websites for updates related to travel, shopping, housing, stocks, etc.
- **Data Integration:** Uses data from Gmail, Maps, Calendar, Chrome and other Google services.
- **Concern:**
    - **Privacy Concern:** Requires users to share sensitive personal data including location, finances and preferences. *(Potential profiling and long-term data storage concerns)*
    - **Web Traffic Issue:** Continuous AI crawling may increase automated internet traffic. *(Bots already form over 53% of global web traffic)*
    - **Impact on Publishers:** AI agents may reduce website click-through traffic while still extracting content from publishers.

- **Digital Divide Concern:** Advanced AI agents available mainly for premium subscribers may widen informational inequality
- **Regulatory Concern**: No clear legal framework exists regarding liability for financial or personal decisions influenced by AI agents.

Mains Exam Topics

SEDITION IN INDIA

Context

The Supreme Court permitted pending sedition-related cases under Section 124A of the IPC to continue if the accused agrees, despite the earlier suspension of the provision during constitutional scrutiny.

An overview of Sedition in India

- Sedition refers to any act or attempt to incite hatred, contempt, or disaffection against the government through words or actions.
- The **Section 124A** of IPC specifically mentions that any person who "excites or attempts to excite disaffection towards the Government established by law" in India shall be punished accordingly under the act provided other conditions under the section are satisfied.
- Under **Article 19(2)** of the Indian Constitution, certain reasonable restrictions can be provided for national security of the state

Data

- **Nature of Cases**: 96% of sedition cases (405 individuals) over the last decade were registered post-2014, primarily for criticising politicians or governments.
- **Conviction Rate (2019):** Only 3.3% (**NCRB**)
- **Rate of Increase in Sedition cases:** 165% rise in sedition cases since 2016 (**NCRB**)
- The Law Commission's April 2023 report supported retaining the sedition law, reasoning that its application in a democratic setup differs from its use under colonial rule. However, given the recurring evidence of misuse, it would be unjust for the government to overlook the law's problematic implementation.
- **Former CJI NV Ramana questioned the Sedition law** while calling it a colonial law,

which was used by the British to silence Mahatma Gandhi. He further questioned the relevance of the law after 75 years of Independence.

Sedition under Bharatiya Nyaya Sanhita (BNS)

- **Under the BNS, Sedition is outlined in Section 152.**
- **Origin**: This provision draws its **origin from Section 124A of the Indian Penal Code (IPC),** 1860, which was initially introduced in 1870 by the British colonial government to penalize expressions of hatred, contempt, or disaffection against the British Crown.
- Punishment under **Section 124A of the IPC was either life imprisonment or imprisonment up to three years**, with an optional fine.
- In contrast, **Section 152 of the BNS** prescribes life imprisonment or imprisonment up to seven years, along with a mandatory fine.
- The **objective of this provision** is to **safeguard national integrity and prevent the fragmentation of the country,** especially in the context of India's diverse society and its historical experience with secessionist movements.

Case Laws

- **Tara Singh v. State of Punjab (1950):** In this case, the court held the section as unconstitutional as it was against the freedom of speech and expression.
- **Ram Nandan v. State of UP (1958):** The Allahabad HC held that Section 124A imposed restrictions on the freedom of speech which was not in the interest of the people.
- **Kedarnath v. State of Bihar (1962):** The Supreme Court observed that the sedition law must be narrowly interpreted.
- **Balwant Singh and Another v. State of Punjab (1995):** The SC held that the casual raising of slogans once or twice by two individuals cannot be termed as Sedition.
- **Shreya Singhal Vs. Union of India (2015)**: The SC drew distinction between Advocacy and incitement where only incitement can be punished.

- **Tejender Pal Singh v. State of Rajasthan & Anr (2024):** A bench of Justice Arun Monga held that **Section 152 of BNS should not be used to cripple legitimate dissent** and only deliberate actions with malicious intent would fall within the ambit of this provision.

Supreme Court's Clarification (2026)

- **Conditional Continuation of Trials**: Pending cases may proceed if accused persons do not object.
- **Judicial Backlog Reduction:** Move intended to ease pendency during BNS transition.
- **Questionable Voluntariness of Consent**: Incarcerated individuals may lack genuine freedom to refuse.
- **Consent under Compulsion:** Accused may accept trials merely to avoid indefinite custody.
- **"Hobson's Choice" Situation**: Individuals forced between equally unfavourable alternatives.

Arguments in Favour of Sedition Law

- **National Security**: Helps address threats from insurgent groups and hostile elements.
- **State Stability:** Protects against anti-national acts and attempts to topple elected governments.
- **Preserving Public Order**: Enables action against those provoking public emotions leading to unrest.
- **Social Harmony**: Prevents attempts to incite hatred or disharmony within society.
- **Control on Non-State Actors:** Deters individuals with terrorist motives or subversive intentions.
- **Preventive in Nature:** Acts as a deterrent against participation in anti-state activities.
- **Combatting Extremism**: Useful in dealing with Maoist insurgency and similar internal threats.
- **Checks Separatist Movements**: Effective against secessionist groups like Khalistan outfits and ULFA.

Arguments against Sedition Law

- **Rampant Misuse:** The sedition law is often invoked against critics of the government, leading to misuse rather than genuine application.

- **Draconian Colonial Legacy:** Originating during British rule, the law's rationale no longer aligns with the principles of a democratic republic. It restricts free speech, a cornerstone of democracy.
    - **Eg**: Leaders like Mahatma Gandhi and Jawaharlal Nehru were prosecuted under this law, indicating its misuse even during the freedom struggle.
- **Suppresses Democratic Discourse:** The Supreme Court, in 2021, highlighted the need to define limits of sedition while shielding Telugu news channels from state action—underlining its misuse to stifle the media.
- **Violation of International Obligations:** Despite being a signatory to international human rights covenants, India's sedition law fails to uphold free speech norms under Article 19.
- **Poor Conviction Rate**: With a conviction rate of just 3.3% (**NCRB**), the law disproportionately harms the accused without delivering justice.
- **Redundancy in Legal Framework:** Many recent sedition charges could have been addressed under existing criminal laws, making its separate invocation unnecessary.
- **Threat to Whistle-Blowers:** The law may deter individuals from exposing corruption or illegal acts due to fear of prosecution. (Article 19 & Whistleblower Protection Act)
- **Infringement on Free Expression:** The provision can be misapplied to suppress dissent, curbing the fundamental right to free speech (Article 19)

Way Forward

- **Differentiate Nature of Offences:** It is crucial to distinguish between seditious speech and actual seditious acts to avoid unnecessary criminalisation of free expression.
- **Responsibility of Proof:** The onus of proving harm from alleged seditious acts should lie with the complainant.
- **Refine Definition:** The scope of sedition should be restricted strictly to threats against the sovereignty and territorial integrity of India.

- **Judicial Oversight:** Higher judiciary must actively guide lower courts and law enforcement on the constitutional boundaries of free speech.
- **Police Training:** Law enforcement should be made aware that sedition does not cover mere criticism or expression of dissent.
- **Use with Restraint:** Application should be limited to rare, serious cases to prevent arbitrary or politically motivated use.

Best Practices

- **United Kingdom:** The Coroners and Justice Act, 2009 repealed sedition laws, though they remain applicable to non-British nationals in certain cases.
- **Indonesia**: The judiciary has declared sedition laws unconstitutional, moving away from colonial-era statutes.
- **United States:** Although Section 2385 of the U.S. Code criminalises advocating the violent overthrow of the government, it is rarely enforced to safeguard freedom of speech

ISSUES IN INDIA'S GREEN TRANSITION

Context

Despite rapid renewable-energy expansion, India continues to rely heavily on coal for electricity generation. Recent West Asia tensions and rising global energy prices exposed the incomplete nature of India's green transition.

Issues in the Green Transition

- **Capacity–Generation Mismatch**: Renewables form 42.4% of installed capacity but generate only 15.8% electricity, while coal still contributes 71.8% generation. (April 2026 data)
- **Intermittent Nature of Renewables:** Solar and wind depend on weather and daylight, limiting continuous power supply. (Coal still provides baseload reliability)

- **Inadequate Energy Storage:** Limited battery and pumped-storage infrastructure restrict renewable integration at scale.
- **Weak Grid Flexibility:** Existing transmission and distribution systems are not fully equipped for variable renewable energy flows. (Need for Green Energy Corridors and smart grids)
- **Slow Coal Phase-Down:** Renewable capacity is being added alongside coal instead of replacing it. (Very few old coal plants retired since 2018)
- **High Transition Cost:** Renewable expansion requires major investment in grids, storage, transmission and critical minerals.
- **Critical Mineral Dependence:** Clean-energy technologies rely on imported lithium, cobalt and rare earth minerals. (China dominates global processing chains)

Government Measures

- **500 GW Non-Fossil Target:** India aims to achieve 500 GW non-fossil fuel capacity by 2030 under Panchamrit commitments.
- **National Solar Mission:** Promotes solar-energy expansion and domestic solar manufacturing.
- **Green Hydrogen Mission**: Focus on green hydrogen production for clean industry and transport. (₹19,744 crore allocation)
- **PLI Schemes:** Incentives for domestic manufacturing of solar PV modules, batteries and ACC cells.
- **Green Energy Corridors:** Expanding transmission infrastructure for renewable integration.
- **FAME & EV Policies:** Promoting electric mobility and reducing oil dependence.
- **Battery Storage Push**: Policies for Battery Energy Storage Systems (BESS) and pumped hydro projects.

Way Forward

- **Focus on Actual Generation:** Shift emphasis from installed capacity to reliable renewable electricity generation.

- **Expand Storage Infrastructure:** Scale up battery storage, pumped hydro and smart-grid technologies.
- **Modernise Power Grids:** Develop flexible transmission systems for renewable balancing and interstate connectivity.
- **Gradual Coal Transition:** Retire inefficient coal plants while ensuring energy security and employment transition.
- **Strengthen Domestic Manufacturing**: Reduce dependence on imported solar equipment and critical minerals.
- **Diversify Clean Energy Sources:** Expand nuclear, hydro, bioenergy and green hydrogen capacity.
- **Enhance Energy Efficiency**: Promote industrial efficiency, smart appliances and demand-side management.