

Today's Prelims Topics

First Estimate of Gangetic Dolphins in India

Context

India has conducted its **first-ever detailed population survey** of **Gangetic dolphins**, the **only riverine dolphins** in the country.

About Population Survey

- **Total population estimate:** 6,234
 - **Ganga basin population:** 5,689
 - **Brahmaputra basin population:** 635
 - **Beas River:** 3 (Indus River Dolphins).
- **State-wise Dolphin Population:**
 - **Uttar Pradesh:** 2,397 (highest)
 - **Bihar:** 2,220
 - **West Bengal:** 815
 - **Assam:** 635
- **Bihar:** Most dolphin-friendly state due to ideal river morphology and higher water depth.
 - **Chausa-Manihari stretch (590 km):** **1,297 dolphins**, making it one of the **densest populations** in India.
- The study was conducted by the **Wildlife Institute of India (WII)** along with **state forest departments** and **non-profit organizations** like Aaranyak, WWF, Turtle Survival Alliance and Wildlife Trust of India.

Types of River Dolphins

- **Facultative River Dolphins** (Found in Both Freshwater & Marine Environments)
 - **Irrawaddy dolphins:** Found in **Chilika Lake (India) and the Sundarbans**.
 - Estimated population in **Chilika Lake: 155**.
 - **Other facultative dolphins worldwide:**
 - **Tucuxi** (Amazon and Orinoco rivers).
 - **Yangtze finless porpoise** (China).
- **Obligate River Dolphins** (Only Found in Freshwater Bodies)
 - **Yangtze River Dolphin** (China): **Presumed extinct**, last seen in **2007**.
 - **Amazon River Dolphin:** Over 2.5 meters long, distinctive **pink color**.
 - **Ganges River Dolphin:** Found in **Ganges and Brahmaputra rivers and some tributaries**.
 - One of the largest river dolphins (**over 2.5 meters**).
 - **Indus River Dolphin:** Closely related to the Ganges dolphin.
 - **State aquatic animal of Punjab**.
 - Found in **River Beas and Harike wetlands (Tarn Taran district, Punjab)**.
 - **Only 3 dolphins** were found in the study.
 - Pakistan's Indus River has **~1,800 dolphins**.

How Was the Census Conducted?

- **Challenges in Counting River Dolphins:**
 - Unlike land animals, dolphins **spend most of their time underwater** and **surface only briefly for air**.
 - They do not leave behind **traces like excreta, pug marks, or DNA samples**.
- **Methodology Used:** Combination of Visual & Acoustic Surveys

- **Visual survey:**
 - Two teams on boats recorded dolphin sightings.
 - Recorded details like **distance from the boat, age (adult/neonate), and whether it was the same dolphin seen earlier.**
- **Acoustic survey:**
 - Used a **hydrophone (underwater microphone)** to capture dolphin **echo-location sounds.**
 - Sound analysis helped **identify unique individuals** with **high accuracy.**
- **Mathematical modeling** was used to correlate data from both methods for the final count.

Threats to Gangetic Dolphins

- **Accidental entanglement in fishing nets.**
- **Pollution** (chemical waste, sewage, industrial effluents).
- **Habitat destruction due to river modifications** like dams and barrages.
- **Illegal use:** Some dolphins are **opportunistically killed** for their **blubber oil**, used as bait for **catfish fishing** in **India and Bangladesh.**

Key Conservation Initiatives

- **National Dolphin Research Centre (NDRC):** India's first dedicated research facility for Ganges dolphins in Patna (Bihar).
- **Vikramshila Gangetic Dolphin Sanctuary:** Bhagalpur (Bihar)
- **National Dolphin Day (October 5):** Declared by the Standing Committee of the National Board for Wildlife to raise awareness about dolphin conservation.
- **Project Dolphin:** It was launched **by PM Narendra Modi** on **August 15, 2020** to conserve both **marine and riverine dolphins.**
- **Namami Gange Mission:** A large-scale initiative to clean and rejuvenate the Ganga River.

For More Information on Gangetic Dolphins visit - [StudyIQ](#)

Source:

- [The Hindu - Dolphin Census](#)

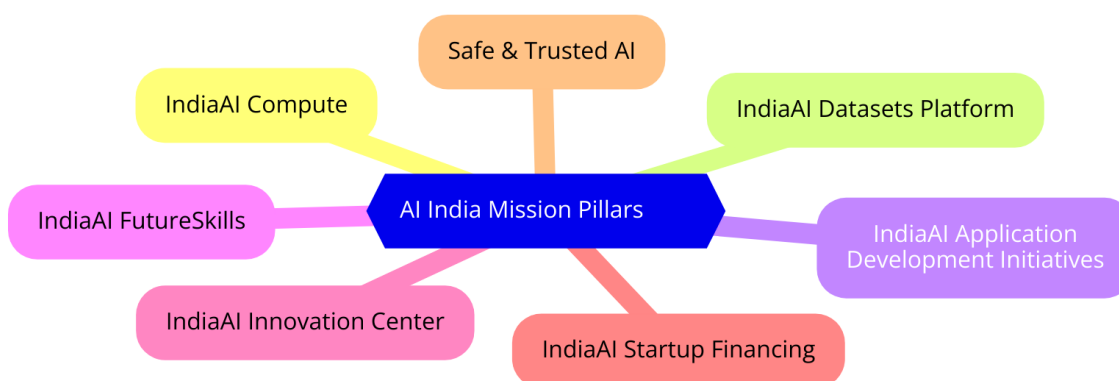
IndiaAI Mission and AI Kosha

Context

Recently the Ministry of Electronics and Information Technology (MeitY) has launched **AI Kosha**.

What is the IndiaAI Mission?

- The **IndiaAI Mission** is a government-led initiative under MeitY, originally a **joint effort between MeitY and Nasscom**, but now **fully managed by the government**.
- **Approved Budget:** ₹10,371.92 crore
- **Key Objectives:**
 - **“Making AI in India and Making AI Work for India”.**
 - Promote AI research, development, and innovation in India.
 - Provide computational resources and datasets to startups and researchers.
 - Support the creation of **indigenous AI foundation models**.
- **Pillars of India-AI Mission:**



Common Compute Facility: Enabling Access to GPUs

- **What are GPU's (Graphic Processing Unit):**
 - It is a computer chip that rapidly calculates mathematical operations to display graphics and images.
 - It is used in Creative content creation, video editing, high-performance computing (HPC), and artificial intelligence (AI).
- **Why are GPUs Important for AI?**
 - GPUs are primarily used for **gaming and graphics rendering** but are also crucial for AI research.
 - AI models, like **Generative AI**, require **high computational power** to process vast amounts of data.
- **IndiaAI's Solution: A Shared GPU Pool:**
 - **The Common Compute Facility** enables startups and researchers to access **high - performance GPUs** without needing to purchase them individually.
 - The government is **empanelling data centres** in India with available GPUs to provide shared computing resources.
 - **Current Status:** As of now, **14,000 GPUs** have been **acquired and commissioned** for use by empanelled data centres.

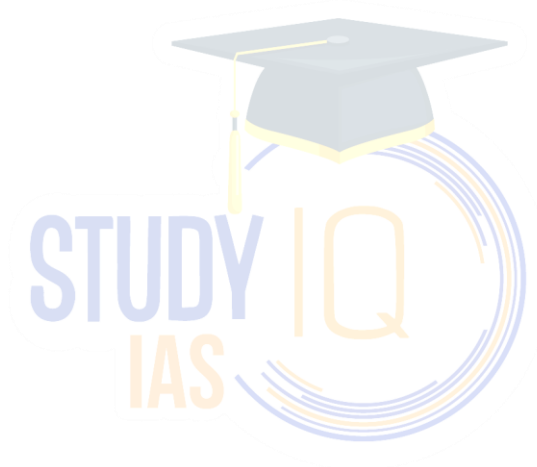
What is AI Kosha?

- AI Kosha is part of the **IndiaAI Datasets Platform**, which aims to **provide India-specific data** for AI model development.
- AI models are often trained on **Western datasets**, leading to a bias toward:
 - **English language**

- **Developed countries' perspectives**
- AI Kosha aims to **reduce this bias** by offering **Indian language datasets** and region-specific data.
- **Key Features of AI Kosha:**
 - Provides **Indian datasets** for AI researchers and developers.
 - Includes **translation models** between different Indian languages.
 - Supports AI firms in **building India-specific generative AI models**.

Source:

- [The Hindu - AI Kosha](#)



Madhav National Park becomes India's 58th Tiger Reserve

Context

The Central Government has officially declared **Madhav National Park in Madhya Pradesh** as **India's 58th Tiger Reserve**.

About Madhav National Park

- **Location:** Situated in Shivpuri district of Madhya Pradesh, in the Chambal region.
- It lies within the Bundelkhand region, covering both plateaus and forests.
- Madhav NP has a long history of being used as a **royal hunting ground** before its designation as a **national park in 1958**.
 - The **Scindia dynasty**, particularly the **Maharajas of Gwalior**, used the park as their **hunting preserve**.
 - It was named after **Madho Rao Scindia**, a prominent ruler of Gwalior.
- **Rivers flowing:** Manihar.
- **Wildlife and Biodiversity:**
 - **Tigers:** Currently, **five tigers** are present, including **two cubs**.
 - **Other Mammals:** Includes **leopards, hyenas, jackals, sambar deer, chital (spotted deer), nilgai (blue bull), chinkara (Indian gazelle), and wild boars**.
 - **Birdlife:** Painted storks, peafowls, white-breasted kingfishers and various migratory birds.
 - **Lakes:** Sakhya Sagar Lake. (**Wetland under Ramsar Convention**) & Madhav Sagar Lake.

Facts

- **Total Tiger Reserves in India: 58**
 - **56th** - Guru Ghasidas – Tamor Pingla Tiger Reserve -Chattisgarh.
 - **57th** - Ratapani Tiger Reserve - Madhya Pradesh.
 - **58th** - Madhav National Park - Madhya Pradesh.
- **Madhya Pradesh has highest number of Tiger Reserves in India: 9**
- Also **Madhya Pradesh** has the **highest number of national parks in India: 11**
- India hosts over **70% of the world's tiger population**.
- **Total Tigers in India: 3682**
 - **(1)** Madhya Pradesh - 785 **(2)** Karnataka - 563 **(3)** Uttarakhand - 560

Source:

- [The Hindu - Madhav NP](#)

Indian Scientists Develop Secure Ink to Combat Counterfeiting

Context

Scientists from **INST Mohali** and **BARC Mumbai** have developed a **new fluorescent ink** using **strontium bismuth fluoride (Sr₂BiF₇) nanoparticles**.

About the New Ink

- Most security inks glow (fluoresce) under **either ultraviolet (UV) light or infrared (IR) light**, but **not both**.
- This new ink **glows under both UV and IR light**, making it much harder for counterfeiters to copy.
- **What is it Made Of?**
 - The ink contains tiny **nanoparticles** (super small particles, less than 100 nanometers in size).
 - These particles are made of **strontium bismuth fluoride (Sr₂BiF₇)** and **special elements (erbium & ytterbium)** that help them glow.
- **How Does It Glow** - When **different types of light** shine on the ink, it glows in different colors:
 - **365 nm UV light** → **Blue**
 - **395 nm UV light** → **Magenta**
 - **980 nm Infrared light** → **Orange-red**
 - This unique multi-color glow makes it much harder for counterfeiters to fake.
- **Where Can It Be Used?**
 - Can be printed on **currency notes, cheques, passports, and branded products** to prevent fakes.
 - Works even in **different temperatures, humidity, and lighting conditions**.

Importance of Security Printing

- **Security printing** prevents counterfeiting in banknotes, cheques, passports, branded consumer goods, and pharmaceuticals.
- Features used in security printing:
 - **Visible to humans**: Optically variable ink, watermarks, holograms, security threads, raised shapes, shifting textures.
 - **Machine-readable**: RFID chips (used in passports), invisible barcodes, digital watermarks, holograms.

Source:

- [The Hindu - Indian team makes doubly secure ink](#)

Supreme Court Curtails Arrest Powers Under Customs and CGST Acts

Context

The Supreme Court (SC) has **restricted the arrest powers** of officers under the **Customs Act, 1962, and the Central Goods and Services Tax (CGST) Act, 2017**, In the case of **Radhika Agarwal v. Union of India**.

Key Ruling of the Supreme Court

- **Procedural Safeguards for Arrest** The SC emphasized that **customs and GST officials** must adhere to the **same safeguards** as police officers when making arrests. This includes:
 - **Presentation before a magistrate within 24 hours** of arrest.
 - **Informing a family member or friend** about the arrest.
 - **Allowing the arrestee to have a lawyer present** during interrogation.
- **Expansion of Kejriwal Ruling to Customs and GST Arrests:**
 - The SC had previously laid down **guidelines for arrests under PMLA** in **Arvind Kejriwal v. Directorate of Enforcement**.
 - In **Radhika Agarwal**, the court extended these principles to **Customs and CGST Act arrests**.
- The SC **directed the Central Board of Indirect Taxes and Customs (CBIC)** to form guidelines to ensure that:
 - **Taxpayers are not threatened with arrest** for tax payments.
 - **Officers follow due legal procedures** before making arrests

Power of Arrest Under Customs and CGST Acts

- Both **Customs Act and CGST Act** classify certain offences as "**cognisable**", meaning arrests can be made **without a magistrate's warrant**.
- **Example:** Under **Section 104(4) of the Customs Act**, evading customs duty of over **₹50 lakh** is a cognisable offence.

Three Key Requirements for Arrests

- **Material in Possession:**
 - **Before arresting anyone, officers must have material evidence** proving the accused is guilty.
 - Officers **must record their reasoning in writing** before making an arrest.
 - They **cannot ignore evidence that supports the accused's innocence**.
 - The SC also stated that arrests "**cannot be made out of thin air or mere suspicion**."
- **Reasons to Believe:**
 - Officers must **record their "reasons to believe"** that the accused is guilty **based on material evidence**.
 - Courts **cannot question the merits** of these reasons but **can check whether they are based on proper evidence**.
- **Providing Grounds of Arrest to the Accused:**
 - The SC held that **arrestees must be informed about the reasons for their arrest**.
 - This allows them to **challenge the arrest in court** or **apply for bail**.
 - Without this information, an arrestee would be at a **legal disadvantage**.

Source:

- [Indian Express - Restriction of arrest powers](#)

Smart Proteins

Context

The **Department of Biotechnology (DBT)** is funding research under the **BioE3 initiative** to develop **smart proteins**.

About Smart Proteins

- Smart proteins are **alternative protein sources** developed using **scientific and technological innovations** to **mimic the taste, texture and nutritional value** of traditional protein sources like meat, dairy, and eggs.
- These proteins are designed to be **sustainable, resource-efficient and climate-friendly** while addressing **protein deficiency** and **food security** concerns.

Types of Smart Proteins

- **Fermentation-Derived Proteins:**
 - Proteins obtained from **microbes** such as **algae, bacteria and fungi**.
 - These microbes generate proteins naturally, which can be **processed into food ingredients**.
- **Plant-Based Proteins:**
 - Proteins extracted from **plants** that can be modified to resemble **meat, dairy, or eggs**.
E.g. Soy protein, Pea protein, Rice protein etc.
- **Cell-Cultured Proteins:**
 - Animal cells are grown in a lab to produce real meat without the need for raising and slaughtering animals. **E.g.** Cultured chicken, beef, fish etc.

Challenges in Smart Protein Development

- **High Production Costs** – Technology is still evolving, making smart proteins expensive.
- **Consumer Acceptance** – Taste, texture and cultural preferences play a key role.
- **Regulatory Approvals** – Food safety laws and approvals vary by country.
- **Scaling Production** – Efficient manufacturing processes are needed to meet demand at lower costs.

Source:

- [Indian Express - Smart Proteins](#)

News in Shorts

HantaVirus

- It is a **rodent-borne virus** that causes **severe respiratory or renal diseases** in humans.
- This disease has a **high fatality rate**.
- The two main diseases caused by hantavirus are:
 - **Hantavirus Pulmonary Syndrome (HPS)** – Found in North and South America.
 - **Hemorrhagic Fever with Renal Syndrome (HFRS)** – Found in **Europe and Asia**.
- **How is Hantavirus Transmitted?**
 - Inhalation of virus particles from dried rodent urine, droppings, or saliva.
 - Direct contact with rodent urine, droppings, or nesting materials.
 - Bites from infected rodents (rare).
 - Eating contaminated food or drinking contaminated water.
 - It does **NOT spread from person to person**.
- **Symptoms:** Flu-like symptoms (fatigue, fever, muscle aches), Severe shortness of breath,
- Lungs fill with fluid etc.
- Presently **no cure is available**, but early medical care improves survival.

Source:

- [Indian Express - Hanta Virus](#)

Exercise Khanjar-XII

- It is a joint special forces training exercise between **India and Kyrgyzstan**.
- It is held annually since **2011**, alternately in both countries.
- Its **12th edition** is scheduled from 10 March to 23 March 2025 in **Kyrgyzstan**.
- The exercise aims to improve counter-terrorism and special forces operations in urban and high-altitude mountainous terrain.

Source:

- [PIB - Khanjar](#)

Anchar Lake

- **Location:** Anchar Lake is situated on the **outskirts of Srinagar, Kashmir**.
- It is connected to **Dal Lake** through a **channel**.
- **Biodiversity:** The lake has **rich biodiversity**, supporting various **aquatic plants and animals**.
- **Tchay-e-gard Shikar** (shadow fishing) is a traditional fishing method in **Kashmir**. It is practised in this lake.
- **Pollution Issues:**
 - Increasing **urbanization and waste disposal** have led to **severe pollution**.
 - **Contaminated water** affects both aquatic life and the **quality of produce** harvested from the lake - **Growth of lotus stem** is negatively affected.

Lotus Stem (Nadru) – An Aquatic Delicacy

- Lotus stem, called **nadru** in Kashmir, is an **edible root of the lotus plant**.
- It is known for its **crunchy texture and nutritional benefits**.
- **Where is it Found?** Mainly in **Anchar Lake, Dal Lake** and **other water bodies** of Kashmir.



- **Culinary Significance:** Used in traditional dishes like **Nadru Yakhni (yogurt-based curry)** and **Nadru Monje** etc.

Source:

- [The Hindu - Taste of a frigid lake](#)

Jayshree Vencatesan

- **Jayshree Vencatesan**, co-founder of **Chennai-based Care Earth Trust**, has been honored with the **Ramsar Award for Wetland Wise Use**.
- She is the **first Indian to receive this prestigious honor**.
- She was recognized for her **outstanding contributions** to the conservation and sustainable management of wetlands, particularly in **Tamil Nadu**.
- **Conservation of Pallikaranai Marsh (Chennai's Last Remaining Wetland):**
 - Jayshree has worked for **decades** to document and protect **Pallikaranai Marsh**, one of India's **most significant urban wetlands**.



About Ramsar Awards

- The **Ramsar Wetland Conservation Awards** are globally recognized honors presented by the **Ramsar Convention on Wetlands** to individuals, organizations, and governments that have made outstanding contributions to wetland conservation and sustainable use.
- **Categories of the Award:**
 - **Wise Use of Wetlands** – Recognizing efforts to sustainably manage wetlands while maintaining their ecological character.
 - **Wetland Innovation** – Honoring innovative techniques, policies, or technologies in wetland conservation.
 - **Young Wetland Champions** – Acknowledging contributions from young individuals or youth groups in wetland conservation.

Source:

- [Indian Express - Jayshree Vencatesan](#)

Gold Rush at Asirgarh Fort

- Rumors about hidden Mughal-era treasure have led to a digging frenzy near the historic Asirgarh Fort in Burhanpur, Madhya Pradesh.

About Asirgarh Fort: The 'Key to the Deccan'

- **Location:** Situated in **Satpura Range**, around **20 km from Burhanpur city** (Madhya Pradesh).
- It is built at an altitude of **701 meters above sea level**, offering a **commanding view of surrounding lands**.
- Asirgarh Fort is **associated with many legends of buried treasure**, especially **gold from the Mughal era**.

Historical Significance

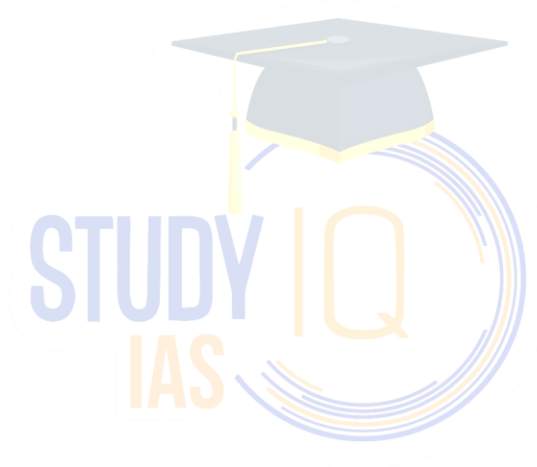
- **Early History & Construction:**
 - It was built by **Asa Ahir**, a local chieftain, in the **15th century**.
 - Later **captured by the Faruqi dynasty** of Khandesh, who ruled Burhanpur.
- **Mughal Era:**
 - **Akbar captured Asirgarh in 1601** after a long siege, marking the **final conquest of Khandesh** into the Mughal Empire.
 - The fort became a **crucial military base for Mughal campaigns in the Deccan**.
- **Later Control:**

- Passed into the hands of **Marathas, Scindias, and eventually the British in 1819.**
- The British **used it as a garrison** due to its **strategic location.**



Source:

- [TOI - Asirgarh Fort](#)



Detailed Coverage

Pradhan Pati (Sarpanch Pati) Practice In India

Context

The **Ministry of Panchayati Raj (MoPR)** has partnered with **The Viral Fever (TVF)** to produce “*Asli Pradhan Kaun?*”, highlighting key challenges in rural governance, including the issue of “**Pradhan Pati practice.**”

More in News

- This initiative comes in the wake of the recent Report by a panel constituted by MoPR on “Transforming Women’s Representation and Roles in Panchayati Raj Systems and Institutions: Eliminating Efforts for Proxy Participation.”

The Panel by MoPR

- **Constituted On:** September 19, 2023.
 - This was a follow-up to a Supreme Court order of July 6, 2023.
- **Objective:** To examine the issue of women pradhans being represented by the male members of their families and also examine other issues related thereto.

Significance of Ending Proxy Leadership in PRIs

- **Empowering Women Leaders:** Ensuring that women sarpanches hold real authority aligns with the objective of reservation policies and promotes genuine gender empowerment.
- **Promoting Inclusive Development:** Women leaders tend to focus on issues affecting women, children, and marginalized groups, leading to balanced rural development.
- **Strengthening Democratic Values:** Empowering women sarpanches reinforces grassroots democracy and restores public confidence in local governance.
- **Driving Economic Growth:** Greater women’s participation in governance helps address gender-specific challenges and promotes inclusive economic policies.
- **Focusing on Social Welfare:** Villages led by women sarpanches often perform better in improving maternal health, school infrastructure, and nutrition programs.
- **Enhancing Accountability and Transparency:** Panchayats with strong female leadership exhibit lower corruption and better fund management.
- **Policy Recognition and Support:** The Economic Survey 2023-24 highlighted the role of women-led development as essential for strengthening economic resilience.
-

What are the Issues faced by Elected Women representatives (EWRs) in Rural Areas?

Status of EWRs in PRIs

- India has approximately **2.63 lakh panchayats** across three tiers:
 - **Gram Panchayat** (village level)
 - **Panchayat Samiti** (block level)
 - **Zila Parishad** (district level)
 - There are **32.29 lakh elected representatives** in these panchayats.
- Out of the total elected representatives, **15.03 lakh (46.6%)** are women.
- Despite higher representation, women’s

- **Gender-Based Discrimination and Proxy Leadership:** Many EWRs face discrimination and are often overshadowed by male relatives who act as de facto leaders, undermining their authority.
- **Limited Political Experience and Education:** EWRs often have less political experience and lower educational qualifications compared to their male counterparts, affecting their confidence and effectiveness in governance roles.
- **Economic Dependence:** Financial reliance on male family members restricts EWRs' autonomy and decision-making capabilities in political matters.
- **Dual Responsibilities:** Balancing household duties with political responsibilities poses significant challenges, limiting the time and energy EWRs can dedicate to governance.
- **Social and Caste-Based Discrimination:** EWRs from marginalized communities, such as Dalits and Adivasis, encounter additional layers of discrimination, further hindering their participation.
- **Digital Divide:** Limited access to digital tools and low digital literacy impede EWRs' ability to engage with modern governance processes effectively.
- **Lack of Knowledge and Training:** Many EWRs lack adequate understanding of the Panchayati Raj Act and related governance rules, affecting their performance.
- **Limited Decision-Making Power:** Despite holding office, EWRs often have less influence in decision-making processes within village councils compared to their male counterparts.

influence in decision-making remains limited.

- The practice of 'Pradhan Pati,' 'Sarpanch Pati,' or 'Mukhiya Pati' is more common in northern states like Uttar Pradesh, Bihar, Haryana, and Rajasthan.

Government and Other Initiatives to Increase Women's Participation in PRIs

- **Constitutional Provisions:** The 73rd Amendment mandates **one-third reservation for women** in PRIs, with **several states increasing it to 50%**.
- **Capacity Building Programs:** The Ministry of Panchayati Raj conducts training under the **Rashtriya Gram Swaraj Abhiyan (RGSA)** to strengthen governance skills of women representatives.
 - **Sashakt Panchayat-Netri Abhiyan** trains women elected representatives to enhance their leadership.
 - States are encouraged to organize separate **Mahila Sabhas** and **Ward Sabhas** to increase women's engagement.
- **Digital Literacy Initiatives:** Programs like **Digital India** and **e-Panchayat** provide women leaders with digital tools for better decision-making and governance.
- **NGO Support:** Organizations like **PRIA** (Participatory Research in Asia) and **UN Women** offer training, mentorship, and networking opportunities for women sarpanches.
- **State-Level Innovations:** States like **Kerala** and **Rajasthan** have introduced gender-sensitive policies and support mechanisms to empower women in local governance.

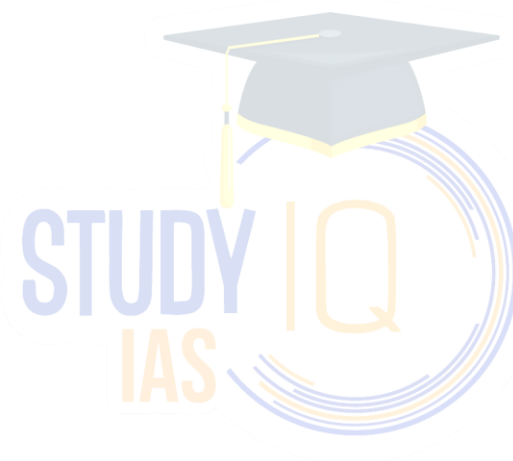
Key Reforms Suggested in the Report by the Panel of MoPR

- **Strict Penalties for Proxy Leadership:** Introduce '**exemplary penalties**' for proven cases of male relatives acting as proxies for elected women representatives in Panchayati Raj Institutions (PRIs).
- **Structural and Policy Reforms:**
 - Implement **gender-exclusive quotas** in panchayat subject and ward-level committees (similar to **Kerala's model**).
 - Introduce **annual 'Anti-Pradhan Pati' awards** to recognize efforts against proxy leadership.
 - Conduct **public swearing-in ceremonies** in Gram Sabhas to reinforce the authority of women pradhans.

- Establish a **federation of women panchayat leaders** for peer support and collective decision-making.
- **Helplines and women watchdog committees** for confidential complaints about proxy leadership, with **whistleblower rewards** in verified cases.
- **Technological Interventions:**
 - Provide **VR simulation training** to improve governance skills.
 - Develop **AI-powered query-driven guidance** in vernacular languages for real-time legal and governance support.
 - Create **WhatsApp groups** linking Women Elected Representatives (WERs) with officials for quicker issue resolution.
 - Launch the **Panchayat Nirnay Portal** to track pradhans' participation, ensuring transparency and accountability.
- **Capacity Building:** Collaboration with IIMS, IITs/NITs, involvement of international development agencies and women MLAs/MPs to leadership training to women pradhans etc.

Sources:

- **PIB: "Sarpanch Pati" Culture Under Spotlight in New Digital Campaign**
- **ORF: Elected Women Representatives in Local Rural Governments in India: Assessing the Impact and Challenges**



A Holistic Approach for Cleanliness of River Ganga

Context

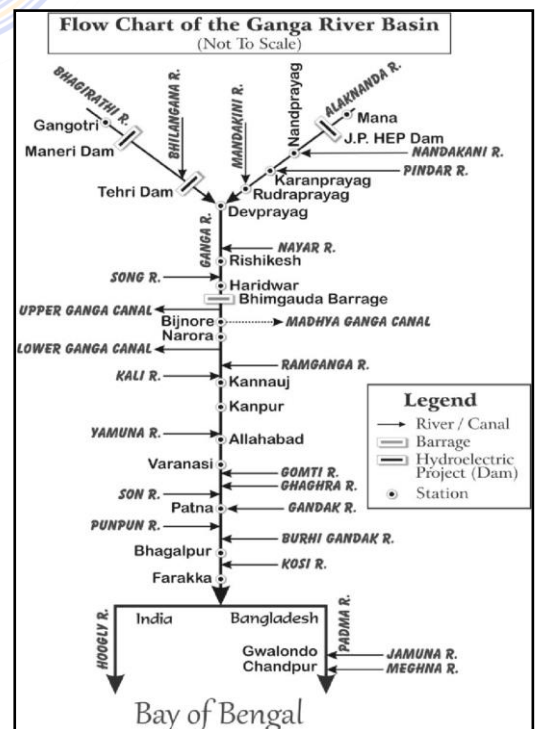
The National Ganga Plan has been allocated a financial outlay of ₹3,400 crore for the year 2025-26.

Namami Gange Programme and National Mission for Clean Ganga (NMCG)

- **Launched In:** 2014
- **Under:** Ministry of Jal Shakti
- **Objectives:**
 - **Pollution Abatement:** Reducing industrial and domestic waste discharge into the Ganga.
 - **Conservation and Rejuvenation:** Restoring the ecological health of the river and its tributaries.
 - **Biodiversity Conservation:** Protecting aquatic species like the Gangetic Dolphin.
 - **Public Participation:** Encouraging community involvement and awareness.
 - **Afforestation and Riverfront Development:** Enhancing riverbank green cover and improving infrastructure.
- **Implemented By:** the **National Mission for Clean Ganga (NMCG)**, which was established in **2011** under the **Societies Registration Act, 1860**.
 - The NMCG acts as the implementation arm of the National Ganga Council, which is chaired by the Prime Minister.
- **Progress:**
 - A comprehensive total of 492 projects, valued at 40121.48 Crore, have been launched.
 - Among these, 307 projects have reached completion and are now operational.
 - An impressive 206 projects addressing Sewage Infrastructure have been set in motion.
 - A substantial fund of 33003.63Crore has been sanctioned for these sewage infrastructure projects.
 - Of these, 127 sewerage projects have been successfully completed, playing a pivotal role in mitigating pollution.
 - Additionally, 56 projects dedicated to Biodiversity & Afforestation have been undertaken.
 - These projects have received a funding commitment of over ₹ 905.62 Crore.
 - Notably, 39 projects focused on biodiversity and afforestation have been successfully concluded, augmenting the ecological equilibrium of the Ganga basin.

River Ganga

- The Ganga River basin is the largest in India, covering **27% of the country's landmass**.
- About **79% of Ganga basin** is in India.
 - The basin covers **11 states** viz., Uttarakhand, U.P., M.P., Rajasthan, Haryana, Himachal Pradesh, Chhattisgarh, Jharkhand, Bihar, West Bengal and Delhi.
- It supports approximately **47% of India's population**, making it a critical resource for livelihoods and agriculture.
- Around **65.57%** of the basin is used for **agriculture**, while **3.47%** is occupied by **water bodies**.
- Despite receiving **35.5% of the total precipitation** in India,



the Ganga River Basin remains the **second most water-stressed** basin after the Sabarmati Basin, with just **39% of the average per capita annual rainwater input** among India's major river basins.

Holistic Approaches to Clean Ganga

- **Pollution Control and Infrastructure Development:** Construction of **Sewage Treatment Plants (STPs)** and sewer networks under models like **Hybrid Annuity Model (HAM)** and **Design-Build-Operate-Transfer (DBOT)**.
 - Establishment of **Common Effluent Treatment Plants (CETPs)** to handle industrial discharge, such as Jajmau, Banther, and Mathura CETPs.
 - **Interception and diversion of drains** like Durga Drain and Varuna tributary to prevent untreated sewage discharge.
- **Wastewater Reuse and Management:** Development of a **National Framework for Safe Reuse of Treated Water** to guide states on economic models and sustainable practices.
 - Introduction of a guidance handbook for policymakers and urban officials on treated water reuse.
 - Encouraging **municipal corporations** to recycle treated water for non-potable uses (e.g., irrigation, industrial use).
- **Ecological Restoration and Biodiversity Conservation:** Establishment of **7 Biodiversity Parks** and protection of **5 priority wetlands** to restore natural habitats.
 - Conservation of aquatic species through projects like ranching **143.8 lakh Indian Major Carp (IMC) fingerlings** and improving prey base for **Gangetic dolphins**.
 - Implementation of a **forestry intervention project** afforesting **33,024 hectares** along the Ganga.

Source:

- [PIB: A Holistic Approach for Cleanliness of River Ganga](#)

Case Study

Case Study: Samvedana Campaign – Tackling Mental Health Issues in Durg, Chhattisgarh

Background

In 2023, the district administration of **Durg district, Chhattisgarh** launched the **Samvedana (Sensing) campaign** to address mental health issues on a large scale. Mental health issues often go unnoticed, especially in rural areas due to stigma and lack of awareness. The initiative aimed to identify, treat, and provide follow-up care to individuals suffering from mental health disorders and those needing physiotherapy.

Objectives

- Early identification and treatment of mental health issues.
- Creating awareness about mental health in rural areas.
- Providing accessible healthcare and follow-up services.

Implementation

- **Training and Capacity Building:** 22 doctors and community health workers received online and in-person training from the **National Institute of Mental Health and Neuro-Sciences (NIMHANS)**.
 - Staff was trained to identify mental health symptoms and reduce stigma.
- **Door-to-Door Survey:** Community health workers conducted initial screenings for signs of mental health issues.
 - Rural Health Organisers (RHOs) conducted a structured door-to-door survey using a **Google form with 10 questions** to assess mental health needs.
- **Awareness Campaigns:** Public awareness drives were conducted in **schools, markets, and fairs** to reduce stigma and encourage treatment.
- **Screening and Treatment:** Patients identified through the survey were screened and provided with counselling and medication.
 - Follow-up care and medication refills were made available through public health centres.

Outcomes

- **Coverage:** Over **3 lakh households** were surveyed.
- **Identification:** Around **3,000 patients** were identified with mental health issues.
- **Treatment:** Treatment was provided to **2,721 patients**; follow-up care was provided to **1,376 patients**.
- **Physiotherapy:** **3,884 patients** needing physiotherapy were identified and treated, including **2,900 at home** and **800 in hospitals**.
- **Suicidal Cases and Schizophrenia:** Cases of severe mental health issues like schizophrenia and suicidal tendencies were identified and treated.
- **Accessibility:** Medicine refills and consultations were made available at local public health centres.

Challenges

- **Stigma and Lack of Awareness:** Mental health issues were often dismissed or misunderstood in rural communities.
- **Identification Barriers:** Community health workers initially struggled to identify mental health symptoms.

- **Follow-Up Care:** Ensuring consistent follow-up for mental health patients was challenging.

Success Stories

- A teenage boy suffering from depression due to bullying was identified and successfully treated through counselling.
- A girl suffering from schizophrenia was diagnosed and provided with regular treatment and care.
- Even individuals with severe mental illnesses, including those roaming the streets, were identified and admitted to hospitals for treatment.

Recognition

The Samvedana campaign was recognised under the **Healthcare category** at the **Excellence in Governance Awards 2024** by **The Indian Express**.

Source: [Indian Express: A Chhattisgarh district that set out to address mental health issues sees results](#)

