

India submits its Fourth Biennial Update Report (BUR-4) to UNFCCC

BUR-4 updates the **Third National Communication (TNC)** and contains the **National Greenhouse Gas (GHG) inventory for the year 2020**.

➤ **The Ministry of Environment, Forest and Climate Change** is India's nodal ministry for managing and coordinating climate change activities and reporting under **Article 4.1 of UNFCCC**.

Key Highlights of report

➤ **GHG emissions:** It has **decreased by 7.93%** in 2020 compared to 2019.

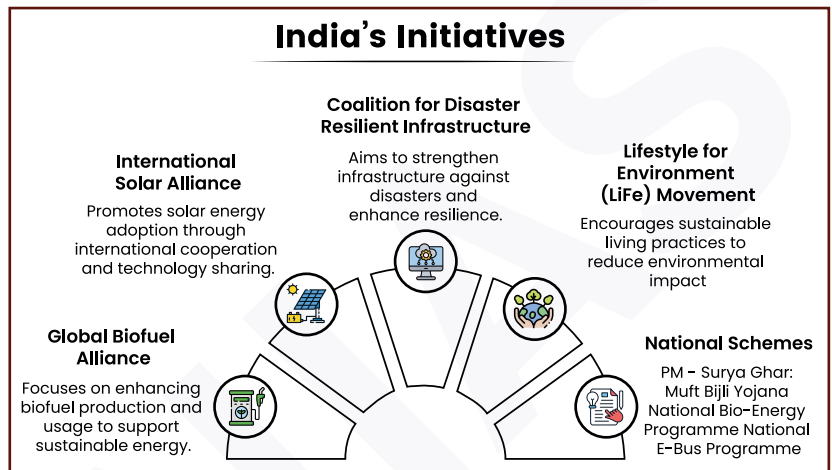
⊕ **Sector wise Emissions:** **Energy (75.66%) > Agriculture (13.72%) > Industrial Process and Product Use (8.06%) > Waste (2.56%)**.

➤ **Emission Intensity of GDP:** It has **reduced by 36%** (Between 2005 to 2020)

➤ **Share of non-fossil sources:** It constitutes **46.52%** of installed electricity generation capacity (October 2024)

➤ **Generation of Carbon Sinks:** An additional carbon sink of **2.29 billion tonnes of CO2** have been created through forest and tree cover (2005 to 2021)

⊕ **Forest and tree cover:** It currently stands at **25.17%** of the country's total geographical area and has **consistently increased**



‘Comparative study of School Education System’(SES) report released by Confederation of Indian Industry (CII)

The report compares SES of India with countries such as the USA, UK, China, Sweden, Australia etc focusing on their structures, methods, funding, assessments, and equity measures.

Comparison of India's SES with other countries

Parameters	Status of India	Comparison with other countries/Best Practises
Learning Methodology	focus on theoretical knowledge and rote learning	Inquiry-based methods (Australia) , USA's focus is on creativity based learning
Assessment & Evaluation	focus on continuous & comprehensive evaluation with periodic tests, activities	Australia, and UK focuses on ongoing evaluation , combining national tests with project-based assessments
Budget	spends 2.7-2.9% of GDP on education	Australia (5.5%), China (4.1%)
Integration of Technologies	SWAYAM (online courses); SMART classrooms	Sweden has National Digitalization Strategy for the School System

Challenges in India's Education System

➤ **Regional disparities, gender gaps**, persistent infrastructure deficits and stark rural-urban **inequalities**, limited holistic education hinders equitable learning, lack of 21st-century **skills** hampers employability.

Recommendations

➤ **Increase Education Budget:** Aim for **6% of GDP** to enhance skills, infrastructure, and innovative learning ecosystems.

➤ **Digital Education:** Bridge digital gaps, create localized content, and boost teacher digital literacy.

➤ **Implement NEP 2020:** Focus on teacher training, flexible curriculums, and technology to support skill-based education.

➤ **Curriculum Framework:** Develop an adaptive curriculum that embraces regional diversity and prioritizes skill-based learning.

➤ **Address Inequities:** Focus on rural infrastructure, inclusive curricula, and strategic teacher deployment, drawing from models like **Sweden's disability-inclusive frameworks**.

➤ **Pedagogical Changes:** Equip teachers with interactive methods to foster critical thinking in dynamic environments.

Government of India constitutes Working Group for revision of current series of WPI

The **18-member** working group is for base revision of the current series of Wholesale Price Index (WPI) from base 2011-12 to 2022-23.

- The **WPI series** has undergone **seven revisions** in 1952-53, 1961-62, 1970-71, 1981-82, 1993-94 and 2004-05, 2011-12 so far.

Terms of Reference of the Working Group

- **Suggest changes in the commodity basket of WPI and PPI:** Based on structural changes in the economy with base year 2022-23.
- **Computational methodology:** To decide the computational methodology to be adopted for WPI / PPI and suggest improvements for better reliability.
- **Producer Price Index (PPI):** Examine methodology for compilation of PPI and suggest improvements.
- **Recommend a roadmap for switch over from WPI to PPI**
- **Others:** Review and suggest changes in the **existing system of price collection**, Computation methodology of **linking factor**.
 - ⊕ **Linking factor** helps maintain continuity in the **time series data** and aids **comparison with the series of WPI**.

Difference between Wholesale Price Index (WPI) and Producer Price Index (PPI)

Parameters	WPI	PPI
Definition	It is an indicator of average price movement over time of a fixed basket of goods at a wholesale stage .	It is an indicator of average price movement over time in selling prices received by domestic producers of goods and services .
Composition	It may include some taxes levied and distribution costs up to the stage of wholesale transactions.	It excludes indirect taxes .
Services	It does not cover services	It covers services
Multiple Counting bias	Present	Absent

NITI Aayog celebrates 10 Years of its Foundation

National Institute for Transforming India (NITI) Aayog was established on **January 01, 2015** through a **Resolution of the Union Cabinet**, replaced the erstwhile **Planning Commission**.

About NITI Aayog

- **Twin mandate**
 - ⊕ To oversee the **adoption and monitoring of the SDGs in the country**; and
 - ⊕ Promote **competitive and cooperative federalism** among States and UTs.
- **Composition**
 - ⊕ **Chairperson:** Prime Minister of India.
 - ⊕ **Governing Council:** Prime Minister; CMs of all the States and UTs with legislature; Lt. Governors of other UTs, Ex-Officio Members; Vice Chairperson, NITI Aayog; Full-Time Members, NITI Aayog; and Special Invitees.
 - ⊕ **Regional Councils:** To address specific issues and contingencies impacting more than one state or a region.
 - ⊕ **CEO:** Appointed by the PM for a fixed tenure, in the rank of Secretary to the Government of India.

Key differences between NITI Aayog and the erstwhile Planning Commission

Parameters	Planning Commission	NITI Aayog
Approach	Top-down, centralized planning model where it made decisions for states.	Bottom-up, cooperative federalism approach where states are equal partners in policy formulation .
Resource Allocation	Had financial powers to allocate resources to states and approve state projects.	Has no such financial power.
Policy Formation	Focused on creating and implementing Five-Year Plans .	Focuses on designing strategic long-term policies and programs while providing technical advice to States and Centre.
State Participation	Had limited state involvement in planning process.	State CMs and Lt. Governors are included in the Governing Council .

NPCIL opens doors for Private Sector participation in Nuclear Sector

Recently, Nuclear Power Corporation of India Limited (NPCIL) has invited Request for Proposal from Indian users for 220MWe Pressurized Heavy Water Reactor (PHWR) Bharat Small Reactors (BSRs) in Brown/ Green fields.

- Based on India's **PHWR technology**, BSRs are compact nuclear reactors with a capacity of **up to 220 MWe**.
- BSRs align with global trends of **Small Modular Reactors (SMRs)**, which have a **capacity ranging from less than 30 MWe to 300+ MWe**.

Significance of Private Participation in Nuclear Sector

- **Resource mobilization:** Can attract investment in India's nuclear infrastructure; provide economies of scale through pooling of resources with India aiming to attract **\$26 billion for nuclear energy, etc.**
- **Technological advancements and innovations:** Can allow investment in cutting-edge research and bring innovations such as SMRs and advanced cooling technologies.
- **Energy transition:** Can significantly contribute to achieving targets of 500 GW energy from non-fossil fuel sources by 2030 and net-zero emissions by 2070.

Challenges for Private Sector participation

- **Legal:** Atomic Energy Act of 1962 restricts private sector involvement, particularly in licensing nuclear plants.
- **Uncertainty around liability Laws:** Civil Liability for Nuclear Damage Act, 2010, is under challenge, causing regulatory uncertainty.
- **Others:** High initial cost due to captive-intensive nature of nuclear projects, public trust in private nuclear operations requires transparency and consistent performance, etc.

Ministry of Defense declares 2025 as 'Year of Reforms'

The declaration aims at **modernization of the Armed Forces** into a **technologically-advanced combat-ready** force capable of **multi-domain integrated operations** and give impetus to the ongoing and future reforms.

Identified areas for focussed interventions

- **Integrated Theatre Commands (ITCs):** To bolster **Jointness & Integration initiatives** to facilitate establishment of ITCs.
 - ⊕ ITCs are **tri-service** commands **incorporating** units from the **Army, Navy, and Air Force**, collectively for addressing security challenges within **designated geographic areas**.
- **Emerging technologies and new domains:** Focus on **Cyber and Space** domains, **AI/ML, Hypersonics**, etc., to be future war-ready.
- **Technology transfer and knowledge sharing:** To be facilitated through enhanced **ease of doing business** and **PPP**.
- **Collaboration:** Breaking **silos**, promoting **civil-military coordination** and developing **joint operational capabilities** through **inter-service cooperation & training**.
- **Defence exports and R&D:** Position India as a **credible exporter** of defence products, fostering **R&D and partnerships**.

Initiatives of Defence Modernization

- **Promoting private and MSME participation:** Through **Innovations for Defence Excellence (iDEX)** scheme and **Self-Reliant Initiatives through Joint Action (SRIJAN)** portal to facilitate indigenization.
- **Liberalized FDI Policy:** FDI limit in defence raised in 2020 to **74%** through the **Automatic Route** for companies seeking **new defence industrial licenses** and **up to 100%** through the **Government Route** for those likely to result in **access to modern technology**.

Also in News



Shendurney wildlife sanctuary

Recently, a **faunal survey** was conducted in the **Shendurney Wildlife Sanctuary**, focussed on **birds, butterflies, odonates (dragonflies and damselflies)**, and **other wildlife**.

- Species like the **Great Indian Hornbill** (State bird of Kerala), **Malabar Banded Peacock** (butterfly) were spotted.

About Shendurney Wildlife Sanctuary

- Situated in **Southern Western Ghats** in **Kollam, Kerala**, it is part of **Agasthyamalai Biosphere Reserve**.
- It derives its name from the **endemic species, Ghuta Travancorica**, locally known as '**Chenkurunji**'.
- **Major rivers:** Shendurney, Kazhuthuruthy and Kulathupuzha, together forming the **River Kallada**.
- **Common fauna:** Elephant, Gaur, Sambar, Malabar giant squirrel, Nilgiri langur, Lion-Tailed macaque etc.
- **Thenmala**, the **first planned eco-tourism destination in India**, is located here.



Methylcobalamin

FSSAI provided **clarification in Guidelines** for usage of **Methylcobalamin** in **health supplements, medical purposes and nutraceutical products** under certain conditions.

- FSSAI had **banned Methylcobalamin in 2016** and **lifted the ban in 2021** but is yet to notify the same

About Methylcobalamin

- It is a **naturally occurring form of vitamin B12** that can be obtained through supplements, as well as food sources like **fish, meat, eggs, and milk**.
 - ⊕ **Vitamin B12** is a **water-soluble vitamin** integral to **DNA synthesis, RBC production, and neurological function**.
 - ⊕ Other forms of Vitamin B12 are **cyanocobalamin** and **hydroxocobalamin**.
- **Function:** **regulates vital bodily functions** like **cell multiplication, blood formation and protein synthesis**.
- **Uses:** Pain alleviation in diabetic neuropathy, treatment of anaemia, Alzheimer's disease



Right to Property

The Supreme Court stated that while the right to property is no longer a fundamental right, it remains a **constitutional and recognized human right**.

About Right to property

- **Original Status:** Initially, the right to property and compensation for acquisition were protected as Fundamental Rights under Articles 19(1)(f) and 31 of the Constitution.
- **Present Status:** 44th Constitution Amendment in 1978 removed the right to property from the list of Fundamental Rights, making it a constitutional right under **Article 300A**.
 - ⊕ Article 300A states that "No person shall be deprived of his property save by authority of law"



Project VISTAAR

IIT Madras has partnered with the Ministry of Agriculture and Farmers Welfare on Project VISTAAR (**Virtually Integrated System to Access Agricultural Resources**)

About VISTAAR

- It is a "Network" of Networks (AI-augmented) and every State can build their own Agri-Advisory network.
- It is a comprehensive network that connects **decentralized databases** to provide seamless access to vital agricultural resources.
- **Objective:** Enhance decision-making and resource utilization
- **Significance**
 - ⊕ Expand access to **high-quality advisory services** on crop production, marketing, **value addition**, and supply chain management.
 - ⊕ Provide farmers with information on **relevant government schemes**



Pig-Butchering Scam

Union Ministry of Home Affairs in its **annual report of 2023-24** highlighted the new cyber fraud known as the "pig butchering scam" or "investment scam".

About Pig-Butchering scam

- It is a global phenomenon and involves **large-scale money laundering** and **even cyber slavery**.
- It is a **type of confidence and investment fraud** in which the victim is gradually lured into making increasing **monetary contributions** to a **seemingly sound investment** before the scammer disappears with the contributed monies.
- **Scammers target** mostly unemployed youths, housewives, students, etc.



River Gomti

Building on the success of the first **Composite Ecological Task Force (CETF)** for the Ganga, the **Indian Army** has formed a new company for the revitalization of the **River Gomti**.

- The CETF is a unit of ex-servicemen aimed at supporting the **NMCG's (National Mission for Clean Ganga)** efforts to reduce pollution in the River Ganga.

About Gomti River

- **Origin:** Starts at **Gomath Taal** (also called Fulnar Jheel) near Madhotanda in Pilibhit district of UP.
- **Length:** It is a tributary of the River Ganga (merges with the River Ganga in Ghazipur district of UP).
- **Tributaries:** Kathina, Sai, etc.
- **Major Cities:** Lucknow, Jaunpur, etc.



Hydrogel

Recently, researchers from IIT Guwahati developed an innovative injectable hydrogel for **targeted Breast Cancer Therapy**.

- The newly developed hydrogel **made of protein-based ultra-short peptides** remains stable at injection sites by being insoluble in body fluids.
 - ⊕ These peptides are both **biocompatible and biodegradable**.

About Hydrogel

- Hydrogels are **water-based, three-dimensional polymer networks** capable of absorbing and retaining fluids.
- Their unique structure **mimics living tissues**, making them suitable for **biomedical applications**.



National Sports Awards 2024

Ministry of Youth Affairs & Sports announced **National Sports Awards 2024**, to be awarded by the **President of India**.

About National Sports Awards 2024

- They are a collection of **6 awards** given to **sportspersons, coaches or organisations etc.**
 - ⊕ **Major Dhyan Chand Khel Ratna Award 2024:** It has been awarded to **Gukesh D (Chess), Harmanpreet Singh (Hockey), Praveen Kumar (Para-Athletics), Manu Bhaker (Shooting)**.
 - ◆ It is given for outstanding performance over a period of 4 years.
 - ⊕ **Other Awards:**
 - ◆ **Arjuna Award**
 - ◆ **Arjuna (Lifetime) Award**
 - ◆ **Dronacharya Award** (For coaches)
 - ◆ **Maulana Abul Kalam Azad Trophy:** Top-performing University in Khelo India University Games
 - ◆ **Rashtriya Khel Protsahan Puruskar:** Organisations/individuals for sports promotion and development over the last 3 years.

Personality in news



Khwaja Moinuddin Chishti (1141-1235)

The Prime Minister greeted people on 'Urs' of Khwaja Moinuddin Chishti,

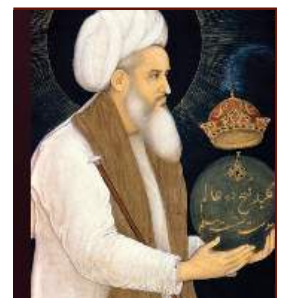
- Urs is held annually at the shrine of sufi saint to commemorate his **death anniversary**.

About Khwaja Moinuddin Chishti

- Born in 1141 CE in **Chishti** in **Herat, Afghanistan**.
- He is the most famous saint of the **Chishti order of Sufism in the Indian Subcontinent**.
- **Chishtiya Order** was founded in India by him.
 - ⊕ A major feature of the Chishti tradition was **austerity, including maintaining a distance from worldly power**.
- **Famous disciples:** Khwaja Qutbuddin Bakhtiyar Kaki, Nizamuddin Auliya and Naseeruddin Charagh, etc.

Key Values

- Communal harmony, spiritual satisfaction to all, Humility



AHMEDABAD



BENGALURU



BHOPAL



CHANDIGARH



DELHI



GUWAHATI



HYDERABAD



JAIPUR



JODHPUR



LUCKNOW



PRAYAGRAJ



PUNE



RANCHI