

NEWS TODAY

Government announces to set up Nuclear Energy Mission in Union Budget 2025-2026

This development aligns with the broader objectives of **Viksit Bharat**, ensuring energy reliability and reducing dependency on fossil fuels.

Key Highlights of the Nuclear Energy Mission

- ▶ **Target: 100 Giga Watt (GW)** nuclear power capacity by 2047 (Current capacity ~8 GW)
- ▶ **Focus on Small Modular Reactors (SMRs):** A ₹20,000 crore allocation for R&D to develop indigenous SMRs, with a target of operationalizing five SMRs by 2033.
- ▶ **Boost Private participation:** By amending key legislations (mentioned below):
 - ⊕ **Atomic Energy Act, 1962:** Provides for the development, control and use of atomic energy and provides the basic regulatory framework.
 - ⊕ **Civil Liability for Nuclear Damage Act, 2010:** Ensures prompt compensation for victims of nuclear incidents by holding the operator responsible.

Government Initiatives for Enhancing India's Nuclear Capacity

- ▶ **Capacity Expansion:** Construction and commissioning of 10 reactors (**totalling 8 GW**) across Gujarat, Rajasthan, Tamil Nadu, Haryana, Karnataka, and Madhya Pradesh.
- ▶ **Indigenous Milestones:** Rajasthan Atomic Power Project's Unit-7 (RAPP-7), one of India's largest indigenous reactors, achieved criticality in 2024.
- ▶ **Bharat Small Reactors (BSRs):** Government is actively expanding its nuclear energy sector by developing BSRs and exploring partnerships with the private sector.
 - ⊕ **BSRs:** They are 220 MW Pressurized Heavy Water Reactors (PHWRs) with a proven safety and performance record.

About Small Modular Reactors (SMRs)

- ▶ **Definition:** SMRs are advanced nuclear reactors with a power capacity of up to **300 MW(e) per unit**, approximately one-third of traditional nuclear power reactors.
- ▶ **Key Features of SMRs:**
 - ⊕ **Modular Construction:** SMRs are designed for factory fabrication and subsequent transportation to sites.
 - ⊕ **Incremental Deployment:** SMRs can be deployed in single or multiple modules, allowing for flexible scaling of power generation to meet increasing energy demands.
- ▶ **Benefits:** Reduce initial capital investment; Offer possibility to combine nuclear with alternative energy sources, including renewables, etc.

Union Budget 2025 Proposes Rationalization of Customs Tariff Structure

Key Changes Announced to Customs tariffs

- ▶ **Reduced the total number of custom tariff rates to 8** including the zero rates from 15 earlier.
- ▶ Proposed to **levy not more than one cess or surcharge**. Therefore, exempted Social Welfare Surcharge on 82 tariff lines that are subject to a cess.
- ▶ Apply appropriate cess to broadly maintain effective duty incidence except on a few items.

Significance

- ▶ Amidst the ongoing **tariff/trade war**, steps to **streamline its tariff structure** underscores India's dual approach of **protecting domestic industries** while **facilitating crucial imports**.
 - ⊕ Recently, the U.S. President **has ignited a trade war** by imposing sweeping tariffs on **China**, leading to **retaliatory measures**.
- ▶ The **tariff rationalization** will also help India **changing the image** that **India is a very high-tariff country** hurting American firms as **accused by US**.

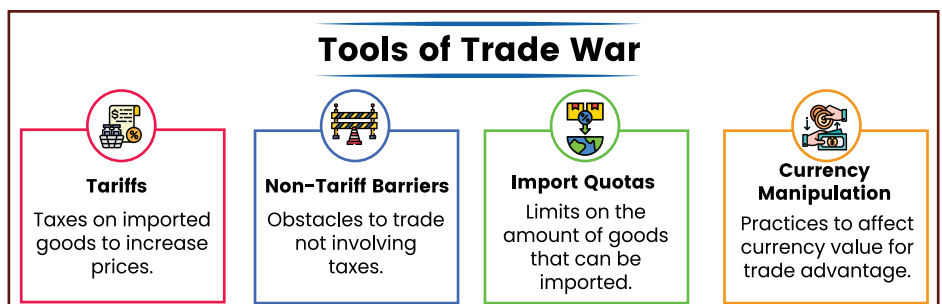
What is Trade war?

- ▶ Trade wars are **economic conflicts** involving **tariffs or trade barriers** that can **disrupt global supply chains**, **raise costs**, and **slow economic growth**.

How India is Protecting Its Economy from Trade War Impact?

- ▶ **Strengthening Domestic Manufacturing:** Production-Linked Incentive (PLI) Scheme, Make in India etc.
- ▶ **Diversifying Trade Partners:** Trade agreements with **UAE, Australia, and EU**.
- ▶ **Other:** Reducing Dependence on China (China+1 strategy), internationalization of Rupee etc.

Tools of Trade War



Rules on AI Literacy and Prohibited Systems Under the European Union AI Act Become Applicable

Under the new **AI literacy obligations**, providers and deployers will be required to ensure a **sufficient level of AI literacy for their staff** and other persons working with AI systems.

About European Union AI Act

- **Genesis:** The AI Act is the first-ever legal framework on AI, which entered into force in 2024 (will be fully implemented by 2026).
- **Approach:** The act takes a risk-based approach to regulation, applying different rules to AI according to the risk they pose.
- **Prohibitions:** The Act list AI prohibited practices (see image), emphasising the importance of ethics, safety and transparency.

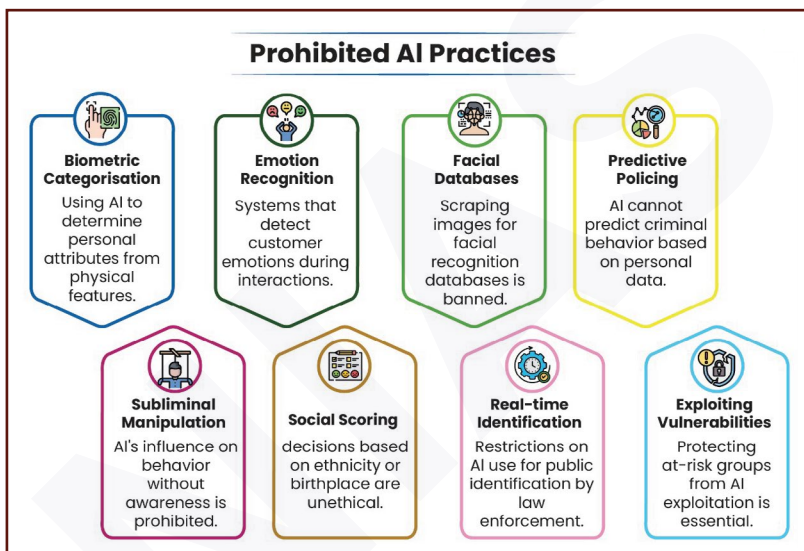
Impact of the AI Act

➤ Global Impacts:

- ⊕ **Human-centric focus:** The Act safeguards fundamental rights, prevents discrimination, and promotes ethical AI, fostering global trust and responsible AI adoption.
- ⊕ **Global Benchmark for AI Regulation:** Other countries may adopt similar frameworks, aligning their regulations with the EU's standards.
- ⊕ **Increased Compliance Costs:** Non-EU companies may face additional costs to adapt their AI systems to comply with the Act.

➤ Impact on India:

- ⊕ **Risk-based regulation:** India's AI policy could benefit from a risk-based approach, categorising AI applications by their potential societal impact.
- ⊕ **Global alignment:** Aligning India's AI regulations with international standards can enhance global cooperation and help Indian companies stay competitive internationally.



International Big Cat Alliance (IBCA) Officially Comes Into Force

The IBCA officially comes into force as a **full-fledged Treaty based Inter-governmental International Organization** and international legal entity.

International Big Cat Alliance (IBCA)

- **About:** Headquartered in India, IBCA is a **multi-country, multi-agency coalition** comprising of **95 big cat range countries, non-range countries** with an interest in big cat conservation.
- **Genesis:** IBCA was launched by the Prime Minister of India in 2023 during the event 'Commemorating 50 years of Project Tiger'.
- **Aim:** Conserving **seven big cats - Tiger, Lion, Leopard, Snow Leopard, Cheetah, Jaguar, and Puma**.
- **Primary Objective:** To facilitate **collaboration & synergy** among stakeholders, consolidating successful **conservation practices** and **expertise** to achieve a common goal of **conservation of big cats at global level**.
- **Depository of the Framework Agreement:** Ministry of External Affairs (MEA), Government of India.
- **Members:** Nicaragua, Eswatini, India, Somalia and Liberia have signed the Framework Agreement to formally become members of the IBCA.

Conservation Status of 7 Big Cats			
Big Cat	IUCN Status	CITES Status	Wildlife Protection Act, 1972
Tiger (Panthera tigris)	Endangered	Appendix I	Schedule I
Lion (Panthera leo)	Vulnerable	Appendix I	Schedule I
Leopard (Panthera pardus)	Vulnerable	Appendix I	Schedule I
Snow Leopard (Panthera uncia)	Vulnerable	Appendix I	Schedule I
Cheetah (Acinonyx jubatus)	Vulnerable	Appendix I	Schedule I
Jaguar (Panthera onca)	Near Threatened	Appendix I	Not found in India
Puma (Puma concolor)	Least Concern	Appendix I	Not found in India

Union Budget 2025 Increased Allocation for PM Surya Ghar Muft Bijli Yojana by 80% to 20,000 crore

PM Surya Ghar Muft Bijli Yojana launched in 2024, is the world's largest domestic rooftop solar initiative, transforming India's energy landscape.

About PM Surya Ghar Muft Bijli Yojana

- **Ministry:** Ministry of New and Renewable Energy.
- **Outlay:** The scheme has an outlay of ₹75,021 crore and is to be implemented till FY 2026-27.
- **Objective:** Installing rooftop solar (RTS) & providing free electricity for up to 300 monthly units for 1 Crore households.
- **Components:** Model Solar Village, Innovative Projects etc.
 - ⊕ **Model Solar Village** focuses on establishing one Model Solar Village per district throughout India.
- **Subsidy:** The scheme offers a subsidy of up to 40% to households.
 - ⊕ Subsidy is provided based on the household's average monthly electricity consumption and the corresponding suitable rooftop solar plant capacity (Refer Table).
- **Collateral Free Loans:** Households will have access to collateral-free, low-interest loans at around 7% interest for installing RTS systems up to 3 kW.

Key Benefits

- **Government Savings:** Expected to save ₹75,000 crore annually in electricity costs.
- **Other:** Cutting energy cost of households, Renewable Energy Boost reducing its carbon footprint etc.

Average Monthly Electricity Consumption	Suitable Rooftop Solar plant Capacity	Subsidy support
0-150	1-2 kW	30000-60000
150-300	2-3 kW	60000-78000
>300	Above 3 kW	78000

Union Finance Minister announced National Manufacturing Mission during the Union Budget 2025-26 presentation

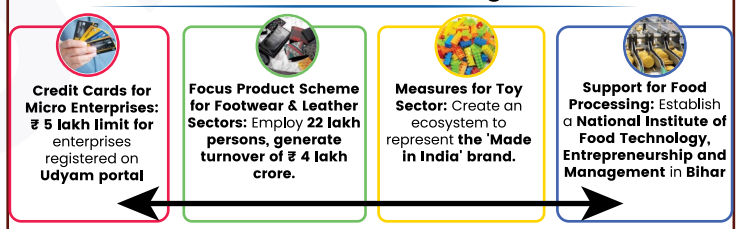
The mission's announcement comes as India aims to increase the share of manufacturing in its gross domestic product (GDP) to 25% (target year 2025) from the present 17%.

About National Manufacturing Mission

- **Aim:** To support small, medium, and large industries under the "Make in India" initiative.
 - ⊕ **Make in India:** Launched in 2014, it aims to transform India into a global hub for design and manufacturing.
- **Mandate:** It will include five focus areas: - Ease and cost of doing business, upskilling for in-demand jobs, MSMEs, availability of technology, and quality products.
- **Objectives:** Provide policy support, execution roadmaps, and governance frameworks for central ministries & states.
- **Clean Tech Manufacturing:**
 - ⊕ **The Mission will support** Clean Tech manufacturing as part of India's commitment to sustainable development.
 - ⊕ **Aim:** Improve domestic value addition and build ecosystem for solar PV cells, EV batteries, motors and controllers, electrolyzers, wind turbines, very high voltage transmission equipment and grid scale batteries.

Significance: Counter China's dominance in the clean tech space; Integration of India's economy with Global Supply Chains.

Other Initiatives announced in Union Budget 2025-2026 for manufacturing Sector



Also in News

Mathikettan Shola National Park

Golden-headed Cisticola (least concerned) found in Mathikettan Shola National Park.

Mathikettan Shola National Park

- **Location:** Idukki, Kerala.
- **Declared as National Park:** 2003 for its unique shola forest and elephant corridor.
- **Vegetation:** Evergreen forests, moist deciduous forests, shola grasslands.
 - ⊕ **Shola grasslands:** Unique high-altitude ecosystems found in the Western Ghats, characterized by a mix of stunted forests (sholas) and grasslands.
- **Biodiversity:** Lion-tailed macaque, an endemic and threatened species; also, Gaur, wild boar, sambar, langur, etc.
- **Water Sources:** Uchillkuthi Puzha, Mathikettan Puzha, Njandar (tributaries of Panniyar).
- **Cultural Significance:** Muthavan tribal colony at Aduvilanthankudy.

Tonnage Tax Scheme

The Budget 2025-26 has expanded the tonnage tax scheme.

Tonnage Tax Scheme

- The Scheme was previously available to sea going ships.
- Now it is available to inland vessels registered under the Indian Vessels Act, 2021 to promote water transport.
 - ⊕ **Inland Vessels Act, 2021** aims to promote safe, economical inland water transport, ensure legal uniformity and vessel procedures.
- **Ministry:** Ministry of Shipping (now part of the Ministry of Ports, Shipping, and Waterways).
- **Genesis:** Introduced in 2004 under the Indian Finance Act, 2004.
- **Significance:** Encourage more cargo movement; will further incentivises shipping companies to invest in inland waterways vessels.



GARBHINI-DRISHTI

Department of Biotechnology has launched **GARBH-INI-DRISHTI** at the Translational Health Science and Technology Institute (THSTI) in Faridabad (Haryana)

What is GARBH-Ini-DRISHTI?

- It is a **data dashboard** that provides a comprehensive overview of one of South Asia's largest maternal and child health databases.
- Significance:** Access to **clinical data, images, and biospecimens** collected from over 12,000 pregnant women, newborns, and postpartum mothers.
- This platform developed under the **GARBH-INI program**.
 - It is a **flagship programme** supported by the **Department of Biotechnology (DBT)**.
 - Aim:** To reduce adverse pregnancy outcomes.



Parvati Arga Bird Sanctuary

Ministry of Environment, Forest and Climate Change (MoEFCC) organised the World Wetlands Day 2025 celebrations at the Parvati Arga Ramsar Site.

About World Wetlands Day (WWD):

- WWD is observed to commemorate the signing of the Ramsar Convention on Wetlands of International Importance in 1971.
- Theme of 2025:** 'Protecting Wetlands for our Common Future'
- India is a party to the Convention since 1982.

Parvati Arga Bird Sanctuary

- Location:** Tarabganj Tehsil, Uttar Pradesh.
- Habitat:** Two oxbow lakes, a permanent freshwater wetland.
 - An **oxbow lake** is a crescent-shaped lake formed when a meander of a river is cut off from the main flow, creating a standalone body of water.
- Biodiversity:** critically endangered **white-rumped vulture** and **Indian vulture**; also, the endangered **Egyptian vulture**.
- Ecological Role:** Vital for roosting, breeding, and groundwater recharge.
- Threat:** Invasive water hyacinth.



Mount Taranaki

Recently New Zealand recognized **Mount Taranaki**, a **stratovolcano** as a legal person in New Zealand.

- A stratovolcano is a **tall, steep, cone-shaped volcano** with explosive eruptions due to its viscous magma and trapped gases.

About Mount Taranaki

- Mount Taranaki** (also known as **Mount Egmont**) is located in Egmont National Park, New Zealand
- It is considered sacred & an ancestor of the local **Māori** people.
 - Māori are the **native aboriginal and Indigenous ethnicity** of Aotearoa/New Zealand.
- New Zealand** was the **1st country in the world** to grant living rights to natural features in 2014 granting legal personhood to **Te Urewera Forest**.



Extra-long Staple Cotton

Union Budget 2025 announced 'Mission for Cotton Productivity'

- 5-year mission** aims to boost cotton farming productivity and sustain-ability, & promote extra-long staple (ELS) cotton varieties.

Extra long Staple (ELS) cotton

- It is a **premium cotton variety** with a **fiber length of 34.925 mm or more**.
- Cultivated in about **10% of the cotton area, contributing 4% of global production**.
- Major producers:** USA, Egypt, Sudan, India, Peru, Israel, China etc.
- Key ELS types:** Pima (USA), Peru (Israel), Giza (Egypt), Suvin & DCH-32 (India), Barakat (Sudan).
- Major ELS Producing states in India:** Karnataka, Tamil Nadu, Madhya Pradesh etc.



Hollongapar Gibbon Sanctuary

The proposed **oil exploration** activities within the **eco-sensitive zone** of the Hollongapar Gibbon Sanctuary, may negatively impact local wildlife.

About Hollongapar Gibbon Sanctuary

- Location:** Located in **Jorhat district** of Assam, it is famous for its **non- human primate diversity**.
- Vegetation:** **Evergreen and Semi-evergreen forest**.
- Flora:** The upper canopy of the forest is dominated by **Hollong tree** (*Dipterocarpus macrocarpus*), while **Nahar** (*Mesua ferrea*) dominates middle canopy.
- Fauna:** India's only gibbons – **hoolock gibbons**, & Northeastern India's only nocturnal primate – **Bengal slow loris** are found here.
- It is also recognized as **Important Bird Area** by **Bird Life International**.



Definition of Forest

Supreme Court restrained until further orders the Centre and the states from taking any step that would reduce forest areas.

- The decision comes amidst a series of petitions challenging recent amendments made in 2023 to the **Forest (Conservation) Act, 1980**.
 - The amendment was challenged on ground that it **left out nearly 1.99 lakh square kilometer** of forest land from the ambit of "forests".
- In 2024, SC directed the government to follow the **definition of forest** as laid down in the **1996 judgment in T.N. Godavarman Thirumalpad v. Union of India**.
 - The **1996 judgment** defines all areas recorded as "forest" in any government (Union and State) record, irrespective of **ownership, recognition, and classification**.

Place in News



South Sudan (Capital: Juba)

Artillery bombardment occurred in South Sudan.

Political Features

- It is a **landlocked country** that came into existence in 2011, located in northeastern Africa.
- Land boundaries:** Sudan (North); Ethiopia (East); Kenya, Uganda, Democratic Republic of the Congo (South), Central African Republic (West).
- Abyei Region:** Own Administrative Area claimed by the governments of both South Sudan and Sudan.

Geographical features

- Highest Peak:** Mount Kinyeti
- The Nile River System:** The White Nile, a major tributary of the Nile.
- The Sudd Wetlands:** The Sudd is a massive swamp formed by the White Nile.
- Ecoregions:** East Sudanian savanna



AHMEDABAD



BENGALURU



BHOPAL



CHANDIGARH



DELHI



GUWAHATI



HYDERABAD



JAIPUR



JODHPUR



LUCKNOW



PRAYAGRAJ



PUNE



RANCHI