

## Tamil Nadu Coastal Restoration Mission (TN-SHORE)

**TN-SHORE**, approved in **September 2025**, is an ambitious **₹1,675-crore** project, largely funded by the **World Bank**, designed to strengthen Tamil Nadu's coastal economy and resilience.

- A core component of TN-SHORE is the restoration and plantation of **1,000 hectares of mangroves**.
- World Bank funds will be **channelled directly to village mangrove councils**, which comprise local residents.
- Beyond mangroves, the initiative seeks to restore **30,000 hectares of seascapes** and safeguard endangered species like **dugongs** and turtles.

### Mangroves and Their Significance

- A **mangrove** is defined as a **salt-tolerant plant community** found in tropical and subtropical intertidal regions.
  - ⊕ These ecosystems thrive in **high-rainfall areas (1,000–3,000 mm)** with **temperatures ranging from 26°C to 35°C**.
- **Climate Role:** Mangroves are termed "Nature's Carbon Vault" because they store **7.5–10 times more carbon per acre** than typical tropical forests.
- **Livelihood:** In Navghar, Maharashtra, mangrove restoration under a government project led women to secure stable, **year-round employment** through sustainable **mud crab farming**.

### Mangroves in India

- As per the India State of Forest Report 2023 (ISFR-2023), India's total mangrove cover stands at **4,991.68 sq. km**.
- India recorded an **11.4% net increase** in mangrove cover between 2001 and 2023.
- **West Bengal** holds the largest share of India's mangroves (**42.45%**), followed by **Gujarat (23.32%)**.

## PROVIDE FOR NATURE

Mangroves provide critical habitat covering tropical coasts in more than 100 countries.



Nursery for fish, crabs, and other marine wildlife



Filter for sediments, protecting coral reefs



Habitat for birds, bees, snakes, and other terrestrial fauna

## PROVIDE FOR PEOPLE

Mangrove forests shield communities from extreme weather events and provide livelihoods.



Protect lives and property from storm surge and flooding



Prevent erosion and stabilize coasts



Support local fisheries, tourism, traditional medicine, and crafts

## Opportunities for India amidst USA's \$100,000 H-1B visa fee

The \$100,000 H-1B visa fee by the United States underscores the **imperative for India to enhance and consolidate its domestic innovation and technology ecosystem**.

### Opportunities for India

- **Reversing Brain Drain:** A large pool of **STEM graduates and young professionals** can contribute to innovation and technological growth in India itself.
- **Start-up ecosystem:** India can leverage its world's **3rd largest start-up hub**, producing unicorns in fintech, ed-tech, and health-tech.
- **Policy support:** Government initiatives like **Startup India, Digital India, Make in India, and Atal Innovation Mission** actively encourage entrepreneurship and innovation.
- **Cost & market advantage:** Lower operational costs and a large domestic consumer base attract both talent and investment.
- **Emerging technologies:** Increasing **investment in AI** offers an opportunity to build an **"Asian Silicon Valley."**

### Challenges for India

- **R&D and skills:** Low research spending (**0.7% of GDP**) and **gaps in higher education** limit cutting-edge innovation.
- **Infrastructure & regulations:** **Inadequate infrastructure** and **complex regulatory frameworks** slow technological progress.
- **IPR & commercialization:** **Weak intellectual property** protection and limited translation of research into global products.
- **Regional cooperation:** **Political tensions and regulatory differences** hinder collaborative technological initiatives in South Asia.

### Conclusion

India has the capability and now it must focus on economic pragmatism and technological innovation to achieve full potential.

## SC Urges Finance Ministry to Amend SARFAESI Act to Remove Anomalies

The Supreme Court held that borrowers' right to redeem a mortgaged property stands extinguished, once an auction notice is issued.

### SARFAESI Act, 2002

- **Full Form:** "Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act".
  - **Key Features:** It empowers banks and financial institutions to recover non-performing assets (NPAs) without court intervention.
    - ⊕ If a borrower defaults on a secured loan, the lender can seize and auction residential or commercial properties pledged as security, except agricultural land.
  - **Key achievements:** Faster reclamation of liquidity and providing a framework to manage distressed assets.
- ### Issues with SARFAESI Act
- **Ambiguity in Section 13:** Led to inconsistency with SARFAESI Rules creating interpretative confusion over borrower's right of redemption.
  - **Legal and Judicial Delays:** The slow pace of legal proceedings.
  - **Complexities in Asset Recovery:** Lenders face challenges in identifying and liquidating collateral, e.g. transfer of assets to third parties.
  - **Limited Impact on Certain Borrowers:** Act does not cover unsecured loans, loans below Rs. 1 Lac.
  - **Infringement of Borrowers' Rights:** Misusing of powers by creditors.
  - **Inefficacy of DRTs (Debt Recovery Tribunals) and ARCs (Asset Reconstruction Companies).**

### Way Forward

- **Simplification of SARFAESI Rules, Prohibition Of Arbitrary And Unfair Means.**
- **Speedy Disposal** through DRTs.

## 'Solar PV Potential Assessment of India (Ground-Mounted)' Report Launched

The report released by the National Institute of Solar Energy (NISE) under the Ministry of New & Renewable Energy provides a policy-linked, investment-ready framework to guide project siting, infrastructure development, and private sector participation.

- The report aims at realizing India's Panchamrit commitments, support goals of energy independence by 2047 and net-zero emissions by 2070.

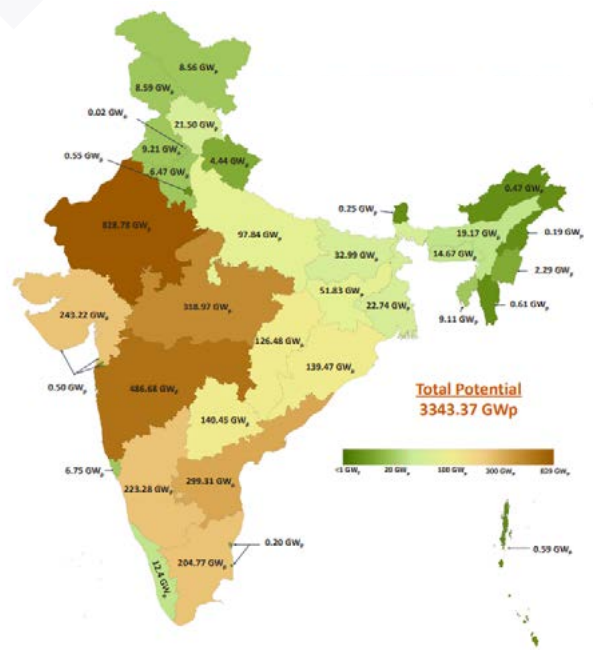
### Key Highlights of the Report

- **Updated National Solar Potential Assessment:** To approximately 3,343 GWp from 749 GWp in 2014.
- **Geographic Distribution:** Other than Rajasthan and Maharashtra, many other states too have very high potential. (Refer image)
  - ⊕ Approximately 6.69% of the total identified feasible wasteland in the country can be utilized.

### Challenges to full realization of solar energy in India

- **Land Acquisition:** Large-scale solar parks require significant land, often in ecologically sensitive or agriculturally important areas.
  - ⊕ E.g. Rajasthan and Gujarat face conflicts over grazing land and biodiversity-rich desert ecosystems.
- **Grid Integration:** Lack of affordable large-scale energy storage technologies limits the integration of weather-dependent solar power.
- **High Initial Capital Cost:** Despite declining module prices, upfront project costs remain high.
- **Other:** Financial stress in DISCOMs; Import dependency for solar modules (~80% from China); policy and regulatory uncertainty, shortage of skilled workforce, etc.

### SOLAR PV POTENTIAL OF INDIA GROUND MOUNTED



### Initiatives Launched

- **Training Program on Solar Cell and Module Manufacturing** at NISE, Gurugram to build technical capacity and develop a skilled workforce.
- **Solar Didi Vision:** Training women as leaders and ambassadors of a sustainable future.
- **PM Surya Ghar (Muft Bijli Yojana):** Aims to promote rooftop solar adoption across the country by providing up to 300 units of free electricity per month to 1 crore households.

## Visakhapatnam Declaration to Advance e-Governance in India Adopted

The Declaration adopted at the 28th National Conference on e-Governance, called for a whole-of-government approach to strengthen civil services with digital competencies, and agile & data-driven frameworks.

### Key Proposals of the Vishakapatnam Declaration

- **National Vision:** Supports inclusive, citizen-centric, and transparent governance with focus on **Minimum Government, Maximum Governance**.
- **Technology-Driven Governance:** Adoption of **AI, ML, Blockchain, GIS, IoT, and Data Analytics** to deliver multilingual, real-time, and sector-specific citizen services, emphasizing the need for ethical and transparent adoption.
  - ⊕ E.g. Digital India BHASHINI, Digi Yatra, NADRES V2, etc.
- **Replication of Successful Models:** Focus on nationwide scaling of models like **SAMPADA 2.0** (MP), **eKhata** (Bengaluru), **Rohini Gram Panchayat** (Maharashtra), **Drone Analytics Monitoring System (DAMS)** by NHAI, etc.
- **Grassroots and Inclusive Development:**
  - ⊕ **Geographical Outreach:** To regions with connectivity challenges, like **North-East and Ladakh**, under the NeSDA framework.
  - ⊕ Nationwide expansion of successful **Panchayat digital models**, **launching digital literacy programs** targeting women, youth, etc.
- **Cybersecurity and Resilience:** Focus on **Zero-Trust architecture**, **Post-quantum security** and **AI-enabled monitoring** in priority sectors like **transport, defence** and **citizen services platforms**.
- **Agriculture and Sustainability:** **National Agri Stack** for better access to credit, advisories, and markets.
- **Other:** **Collaboration** between government, industry, for scalable digital solutions; **Regional Hub Development** (E.g. Visakhapatnam as IT and innovation hub).

### Key Challenges to e- Governance in India

- **Digital Divide & Low Literacy:** Urban-rural, rich-poor, language and literate-illiterate **gaps limit access**.
- **Infrastructure Deficiencies:** Poor internet connectivity, unreliable power, and **inadequate ICT infrastructure in remote areas**.
- **Resistance to Change:** Bureaucratic reluctance to shift from paper-based to **digital systems slows adoption**.
- **Interdepartmental Coordination & Interoperability:** Silos and incompatible systems **hinder seamless service delivery**.

## Also in News



### OECD Economic Outlook Report

OECD Upgrades India's 2025 GDP Forecast to 6.7% While Moderating Inflation Projection to 2.9%.

#### About Economic Outlook Report

- **Released by:** **Organisation for Economic Co-operation and Development (OECD)**
- **Report:** Biannual publication analyzing global and national economic trends.
- **Coverage:** Includes **GDP, inflation, employment, trade, and investment**.
- **Risks:** **Highlights inflationary pressures, financial instability, and geopolitical tensions.**



### Oju Hydroelectric Project

Expert Committee Approves 2,200-MW Oju **Hydroelectric Project** on Subansiri River near the India-China Border.

#### Subansiri River

- **Origin:** **Originates in Tibet and is Largest tributary** of the Brahmaputra.
- It is a **trans-Himalayan antecedent river**.
- **Course:** Enters **Arunachal Pradesh, India, flows into Assam**, and joins Brahmaputra.
- The River is also called the **"Gold River" because of the gold dust found in its waters**.
- **Significance:** Supports **hydropower, agriculture, fisheries, strategic border region, and biodiversity hotspot**.



### Barren Island Volcano

Fresh Eruption Reported at Barren Island Volcano, Andaman Islands.

#### About Barren Island

- **Location:** Situated in the **Andaman Sea**, Andaman and Nicobar Islands, India.
- **138 km Northeast of Port Blair**
- **Status:** India's **only active volcano**.
- **Type:** **Stratovolcano**, part of the Andaman volcanic arc.
- **Significance:** Geological research, **monitoring of volcanic hazards**, ecological impact, and strategic maritime location.



### Nightmare Bacteria

Nightmare bacteria cases are increasing in the USA.

#### About Nightmare Bacteria

- Nightmare bacteria are **resistant to all antibiotic treatments** and can share their genes for resistance with other germs.
- When bacteria **do not respond to antibiotics**, it makes them extremely hard to treat.
- E.g. Vancomycin-resistant *Staphylococcus aureus* (VISA), *Candida auris*, and carbapenem-resistant Enterobacteriaceae (CRE)





### Super Typhoon

Philippines was affected by Super Typhoon Ragasa.

#### About Super Typhoon

- It is a **tropical cyclone with maximum wind speed exceeding 185 kph or more than 100 knots.**
  - Tropical cyclones are **warm-core low pressure systems** associated with a spiral inflow at the bottom level and spiral outflow at the top level.
  - They always form over oceans where **sea surface temperature is greater than 26°C.**
  - They develop at **latitudes usually greater than 5°** from the equator.

#### Terms for Tropical Cyclones:

- Hurricane** – North Atlantic, Eastern North Pacific and South Pacific Ocean.
- Cyclone** – Indian Ocean.
- Typhoon** – Western North Pacific Ocean.
- Willy-willy**: Eastern part of the Southern Indian Ocean.



### DRAVYA Portal

**DRAVYA (Digitized Retrieval Application for Versatile Yardstick of AYUSH Substances)** portal was launched on National Ayurveda Day (Sep 23, 2025).

#### About DRAVYA Portal

- Ministry:** Initiatives of **Ministry of Ayush.**
- It is the **largest collection of data on Ayurvedic Ingredients and Products** made available to everyone.
- It is an ever growing, ever evolving database that covers **classical Ayurveda textbooks** as well as **contemporary scientific literature** and field studies.



### Wheeled Armoured Platforms (WhAP)

Recently, the Defence Minister inaugurated **India's first overseas defence manufacturing plant in Morocco.**

- The facility will produce the indigenously developed **Wheeled Armoured Platform (WhAP) 8x8**, jointly designed by Tata Advanced Systems Limited (TASL) and DRDO.

#### About Wheeled Armoured Platform (WhAP)

- India's First Amphibious Infantry Combat Vehicle (Wheeled):** Designed for optimised **survivability, all-terrain performance and increased lethality.**
- Critical Technologies Used:** Integrated power pack with automatic transmission, floatation and propulsion.



### Tylenol

World Health Organization (WHO) declared links between prenatal **paracetamol (sold as Tylenol in US)** use and autism in children as inconsistent.

#### About Tylenol (paracetamol)

- Tylenol is the brand name of **acetaminophen known internationally as paracetamol.**
- It is an **over-the-counter medication, used to alleviate headaches, muscle aches, arthritis** and used to manage symptoms of colds and flu.

#### About Autism

- It is a condition related to **brain development of a child that affects their social behaviour, interaction** and communication with the people around them.

## Place in News



### Peru (Capital: Lima)

Magnitude 5.6 **earthquake strike** the coast of southern Peru.

#### Political Features

- Location:** Western side of South America.
- Land borders:** Ecuador and Colombia (north), Brazil (east), Bolivia (southeast) and Chile (south).
- Maritime Border:** Pacific Ocean (West).

#### Geographical Features

- Forests:** The world's largest rain forest (The Selva in the Amazon), **covers nearly half of Peru.**
- Mountains:** **Andes** second highest mountain range in the world runs through Peru. **Mt. Huascarán** is the highest peak.
- Lake Titicaca:** World's highest **navigable lake, shared with Bolivia.**
- River:** The **Marañón River**, the **Amazon's primary source**, originates here.



AHMEDABAD

BENGALURU

BHOPAL

CHANDIGARH

DELHI

GUWAHATI

HYDERABAD

JAIPUR

JODHPUR

LUCKNOW

PRAYAGRAJ

PUNE

RANCHI