

NEWS TODAY

20 years of devastating Indian Ocean Tsunami

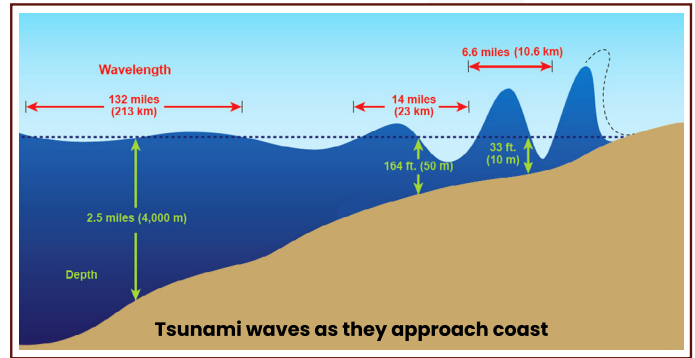
A magnitude 9.1 earthquake near Sunda Trench (Indonesia) in 2004 triggered Indian Ocean tsunami that devastated almost 14 countries.

➤ **Sunda Trench is situated on Pacific "Ring of Fire"** (Arc of intense seismic activity stretching from Japan through Southeast Asia and across Pacific basin).

About Tsunami

➤ **Series of enormous waves** created by an underwater disturbance caused by violent seafloor movement associated with earthquakes, landslides, lava entering sea, seamount collapse, or meteorite impact.

- ⊕ **Not noticed by ships in deep oceans** because their amplitude is negligible when compared with their wavelength.
- ⊕ However when tsunamis approach shallow water, **wave amplitude increases**.
- ⊕ Their **speed depends on ocean depth**, not distance from wave's source.



Steps taken for Tsunami preparedness

➤ Globally

- ⊕ **UNESCO-IOC Tsunami Ready Recognition Programme:** Voluntary, international community-based effort to bolster risk prevention across global coastal zones.
- ⊕ **Tsunami United Programme:** Flagship initiative of UNESCO to increase preparedness.
- ⊕ **Global Tsunami Early Warning and Mitigation Programme:** IOC-UNESCO Programme supports Member States in assessing tsunami risk, implementing Early Warning Systems etc.

➤ India

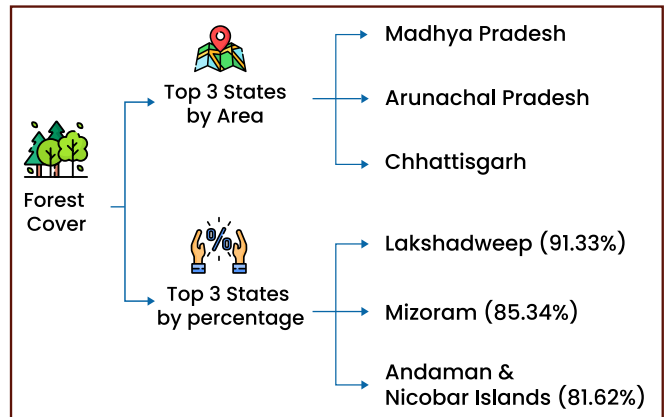
- ⊕ **Indian Tsunami Early Warning Centre (ITEWC):** Established at Indian National Centre for Ocean Information Sciences, Hyderabad is national authority to issue tsunami advisories.
- ⊕ **NDMA Guidelines** on Management of Tsunamis in India.
- ⊕ **Development of Apps and devices:** E.g. GEMINI device for warnings and alerts in sea.

India State of Forest Report (ISFR) 2023 released by Minister for Environment, Forest and Climate Change (MoEFCC)

ISFR is a biennial publication of **Forest Survey of India (FSI)**, MoEFCC. It was 1st published in **1987** (ISFR 2023 is **18th report**).

Key Findings of Report:

- **Total forest and tree cover:** Increased to **25.17%** of geographical area compared to 2021 assessment (**24.62%**).
 - ⊕ It includes **21.76% Forest cover** and **3.41% Tree cover**.
 - ⊕ **Maximum increase:** Chhattisgarh, Uttar Pradesh, Odisha, and Rajasthan.
- **19 states/UTs** have forest cover **above 33% of area**. Out of these eight states/UTs namely Mizoram, Lakshadweep, A & N Island, Arunachal Pradesh, Nagaland, Meghalaya, Tripura, and Manipur have **forest cover above 75 percent**.
 - ⊕ **National Forest Policy, 1988** provides for having a minimum of **1/3rd of total land area of country** under forest or tree cover as a national goal.
- **Mangrove cover:** Total mangrove cover is 4,992 km² in country (**Decrease** of 7.43 km² compared to 2021).
 - ⊕ **Gujarat** saw a **decrease** whereas **Andhra Pradesh** and **Maharashtra** saw an **increase**.
- **Target under Nationally Determined Contributions:** **Carbon stock** has reached **30.43 Bt of CO₂ equivalent**, indicating that India has reached **2.29 Bt of additional carbon sink** (compared to 2005) as against target of **2.5 to 3.0 Bt by 2030**.
- **Extent of bamboo bearing area:** Estimated at 1, 54,670 km² (Increase of 5,227 km² as compared to 2021).



The Prime Minister of India's First Official Visit to Kuwait to Deepen Bilateral Ties

During the visit the PM of India conferred the highest award of the State of Kuwait 'The Order of Mubarak Al Kabeer'.

Key Outcomes of the visit

- **Strategic Partnership:** India-Kuwait elevated relations to a strategic partnership.
- **International Solar Alliance (ISA):** India welcomed Kuwait's decision to join ISA for sustainable energy cooperation.
- **Asian Cooperation Dialogue (ACD):** Highlighted the significance of ACD in regional cooperation.
 - ⊕ ACD was inaugurated in 2001 aimed at capitalizing on Asia's collective strengths. It comprises 35 countries (India is a founding member).
- **India-GCC cooperation:** Kuwait, which currently holds the Presidency of GCC, has promised to support stronger ties between India and GCC member states.
- **Other Developments:** Renewed Cultural Exchange Program (2025–2029), fostering arts, literature, etc; India praised Kuwait's hosting of the 4th Dushanbe Process phase on combating terrorism and strengthening border security.



India- Kuwait Relations

- **Trade relations:** Total bilateral trade with Kuwait during FY 2023-24 was US\$ 10.47 billion. (India is trade deficit).
- **Energy security:** During FY 2023-24, Kuwait was the 9th largest oil supplier with about 3.0 % of India's total energy needs.
- **Diaspora:** Indians are the largest expatriate community in Kuwait (~1 million), both in terms of number of Indian citizens and also workforce-wise.

About Gulf Cooperation Council (GCC)

- **The Cooperation Council for the Arab States of the Gulf** (also called GCC) was set up in 1981.
- **Headquarters:** Riyadh, Saudi Arabia.
- It is a regional organisation comprising 6 members: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates.
- **Objectives:** To enhance coordination, integration and inter-connection among its members.
- **Energy Security:** GCC contributes to 35% of India's oil imports and 70% of gas imports.

Report of Parliamentary Standing Committee on Agriculture, Animal Husbandry and Food Processing

Report recommended a slew of measures to improve livestock sector while highlighting key issues.

Status of Livestock Sector in India

- India has largest livestock population in world. In 2022-23, it contributed 4.66% to total GVA.
 - ⊕ Sector grew at a Compound Annual Growth Rate of 7.38% from 2014-15 to 2022-23, increasing its contribution to agricultural GVA from 24.32% to 30.38%.

Key Concerns flagged by report

- **Low budget allocation:** Reduced funding for key institutes like Small Livestock Institutes, Breed Improvement Institutes, and Veterinary Council of India.
- **Feed and Fodder Issues:** India has only 5% of its cultivable land under fodder production while having 15% of world's livestock.
- **Livestock Insurance:** Only 1% of livestock is insured.
- **Other Issues highlighted:** Underutilization of Funds, Low productivity, Inadequate Progress in Schemes etc.



Key Recommendations

- **Declare Livestock a Special Sector:** For ensuring proper attention and resources.
- **Meet National Programme for Dairy Development (NPDD) Targets:** Focus on setting up Bulk Milk Coolers and Automatic Milk Collection units.
- **Support for Stray Cattle:** Provide subsidies or incentives for farmers to care for non-productive cattle and fund Gaushalas.
- **Expand Livestock Insurance:** To cover a larger portion of 53.5 crore livestock population.
- **Other Recommendations:** Launch Genetic Upgradation Program, Create National Fodder Mission etc.

India's Initiatives for Livestock Sector

- **Rashtriya Gokul Mission:** Focuses on conserving and upgrading indigenous breeds through selective breeding.
- **Kisan Credit Card (KCC) & Animal Health Infrastructure Fund:** Expands credit access and develops animal health infrastructure.
- **Dairy Programs:** Initiatives like NPDD aims to modernize the dairy sector and foster entrepreneurship.
- **Health & Disease Control:** Includes National Animal Disease Control Programme for FMD and Brucellosis.

Parliamentary Standing Committee Report on Petroleum & Natural Gas raise concerns about India's crude oil storage

The Report noted that government had allocated Rs 5,000 crore in the budget estimates 2023-24 for filling up crude oil reserves. However, no expenditure on this account was incurred in FY24.

About India's Strategic Petroleum Reserves (SPR)

- **Genesis:** In 2004, the Government initiated **Strategic Petroleum Reserve (SPR) Programme** for storage of strategic crude reserves.
- **Institution:** Managed by **Indian Strategic Petroleum Reserves Limited (ISPRL)**
- **India's Strategic Petroleum Reserve (SPR) Programme:**
 - ⊕ **Phase-I:** Completed with **5.33 MMT capacity across three locations - Visakhapatnam, Mangalore, and Padur (largest)**
 - ⊕ **Phase-II:** In 2021, Government approved **two additional commercial-cum-strategic facilities** at Chandikhol (4 MMT) in Odisha & Padur (2.5 MMT) in Karnataka.
- **India's total Storage Capacity:**
 - ⊕ **Strategic storage through ISPRL caverns provide 9.5 days coverage.**
 - ⊕ **Commercial storage by oil companies contribute to 64.5 days coverage.**
 - ⊕ **Phase-II will add 11 more days, bringing India closer to International Energy Agency standard of 90 days.**

Strategic Significance of SPR

- **Strategic tool for international price stabilization**
 - ⊕ **Example:** India's coordinated release of **5 million barrels in 2021** with global consumers to **cool oil prices.**
- **Enhances India's energy security and diplomatic leverage**
 - ⊕ **Example:** **UAE's Abu Dhabi National Oil Company** became **first foreign entity** storing crude in India's strategic reserves in 2017.

About Indian Strategic Petroleum Reserves Limited (ISPRL)

- **Genesis:** 2004
- **Type:** A Special Purpose Vehicle, which is a wholly owned subsidiary of Oil Industry Development Board (OIDB)
- **Ministry:** Ministry of Petroleum & Natural Gas.
- ISPRL allowed to commercialize **30% of storage capacity** through leasing to **Indian/foreign companies.**
 - ⊕ Government retains first right over entire crude oil during emergencies.

Minister Inaugurates Pashmina Certification and Next Generation DNA Sequencing Facilities at Wildlife Institute of India (WII)

The facility will bolster study of **genetic adaptation to climate change, pathogen-host interactions**, and the development of **conservation strategies** for endangered species such as tigers, elephants, riverine dolphins, etc.

About Next Generation DNA Sequencing

- **DNA Sequencing:** It involves determining the exact order of Nucleotides (Adenine, Guanine, Cytosine, Thymine) in a DNA molecule.
 - ⊕ The sequence tells scientists the kind of genetic information that is carried in a particular DNA segment.
- **Next-generation sequencing (NGS):** A modern method of **analyzing genetic material** that can **rapidly sequence large amounts of DNA or RNA.**
- **Benefit:** NGS can sequence an entire genome within days, compared to months with earlier techniques.

Key NGS applications in various fields

- **Microbiology:** Helps in pathogen identification, outbreak tracking, and studying antimicrobial resistance by sequencing the genomes of bacteria, viruses, etc.
- **Medical Research & Gene Therapy:** Identify cancer types, replace defective genes for inherited diseases and control systems for precision drug delivery.
- **Wildlife conservation:** NGS enables assessment of population genetic health, diversity, evolutionary histories, disease surveillance, illegal trade detection, and climate-induced biodiversity impacts.
- **Agriculture:** Sequence crop genomes to enhance drought resistance & analyze pests' DNA to develop eco-friendly pest control methods.

Pashmina:

- Pashmina, derived from **Changthangi goats of Ladakh**, received its **GI tag in 2019.**
- It's an ultra-fine cashmere wool (12-16 microns) which undergoes **traditional hand-spinning and weaving.**
- **The Pashmina Testing and Quality Certification Centre in Srinagar** ensures authenticity and maintains quality standards through rigorous testing protocols.

Also In News



Household air pollution

Recent studies tracking **PM 2.5 emissions from domestic sources** highlight indoor air pollution, with residential emissions dominating PM 2.5 pollution in 29 cities including **Srinagar, Kanpur and Allahabad.**

About Household or indoor air pollution

- It's the **air pollution emanating from household indoor activities.**
- **Sources:** Use of inefficient and polluting fuels (kerosene, biomass), poorly ventilated dwellings, etc.
- **Types:** Black carbon and methane emitted by inefficient stove combustion are powerful short-lived climate pollutants (SLCPs) (high Global Warming Potential).
- **Health impact:** Stroke, ischaemic heart disease, and lung cancer, disproportionately impacting women and children.
- **Initiatives to tackle household air pollution:** National Clean Air Programme, PM Ujjwala Yojana



National Consumer Disputes Redressal Commission (NCDRC)

Supreme Court set aside the 2008 NCDRC ruling in **Awaz & Others vs. RBI**, which barred banks from charging over 30% interest on credit card dues, deeming it an unfair trade practice.

About NCDRC

- It is a **quasi-judicial** commission set up in **1988** under the **Consumer Protection Act, 1986.**
- **Headed by:** A **sitting or retired Judge** of SC or a sitting or a retired **Chief Justice of a High Court.**
 - ⊕ Appeal against the order of NCDRC lies with the Supreme Court.
- **Functions:**
 - ⊕ Entertain **complaints valued more than two crores.**
 - ⊕ **Appellate and Revisional jurisdiction** from the orders of **State Commissions or the District fora.**



UN Internal Justice Council

Retired Supreme Court judge Madan B Lokur has been appointed chairperson of UN Internal Justice Council.

About UN Internal Justice Council

- **Establishment:** General Assembly established IJC to ensure independence and accountability in UN's internal justice system.
- **Composition:** Consists of **five members:** a staff representative, a management representative, two external jurists, and a chairperson.
- **Appointment:** By Secretary-General.
- **Functions:**
 - ⊕ Council is tasked with finding suitable candidates for vacant **UN Dispute Tribunal (UNDT)** and **UN Appeals Tribunal (UNAT)** judge positions.
 - ⊕ It also provides its **views on administration of justice system** to General Assembly.



Pradhan Mantri Surya Ghar Muft Bijli Yojana

Masali village(Gujarat) has become **India's first border solar village** (generates 100% of its electricity through solar power).

- Solar rooftop work in all houses was completed **under the Pradhan Mantri Surya Ghar Muft Bijli Yojana.**

About PM Surya Ghar Muft Bijli Yojana (2024)

- **Nodal Ministry:** Union Ministry of New and Renewable Energy
- **Duration:** Till financial year 2026-27.
- **Objective:** To install rooftop solar (RTS) and provide free electricity for up to 300 monthly units for 1 crore households.



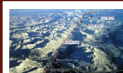
Bio-Bitumen

Union Transport Minister inaugurated India's first National Highway made with Bio-Bitumen in Nagpur-Mansar Bypass on National Highway 44.

- Bitumen is a **black substance** derived from **distillation of crude oil**, known for adhesive properties.
- ⊕ It is mainly used in **road paving and waterproofing applications.**

About Bio-Bitumen

- It is a petroleum-free alternative to bitumen manufactured from **organic elements.** E.g. Bio-char,Stubble,ligin, bio-oil, etc.
- It can be used as an addition to bitumen or to reduce the quantity of bitumen in **binder mixture.**
- **Benefits:** Reduced imports, address issue of stubble burning, boosting Bio-economy etc.
- **Other sustainable methods for road construction** -Copper Slag, Geotextiles, Cold asphalt mix etc.



Denali Fault

New research shows that three sites **spread along Denali Fault** were once a smaller united geologic feature.

- **Location:** It is a **major strike-slip fault** located in Alaska, USA, part of broader **tectonic dynamics of Pacific Ring of Fire.**

Fault and its Types:

- A fault is a **sharp break in the Earth's crustal rocks.**
- **Types:**
 - ⊕ **Normal fault:** When two plates, one on top of other, slide past each other
 - ⊕ **Reverse faults:** When one plate slides under the other, creating a vertical offset.
 - ⊕ **Strike-slip faults:** When two plates move horizontally past each other.
 - ⊕ **Oblique slip fault:** Two blocks on either side of fault move in two different directions simultaneously, combining both normal or reverse faulting with a strike-slip component.



Mumps Disease

Tamil Nadu has requested Union government to consider adding mumps vaccine to **Universal Immunization Programme (UIP).**

- UIP provides **free immunization against 12 diseases,** including nine nationwide, such as Diphtheria, Tetanus, Polio, Measles, and Hepatitis B.
- ⊕ Additionally; it offers vaccines against Rotavirus diarrhoea, Pneumococcal Pneumonia, and Japanese Encephalitis in **specific regions.**

About mumps disease

- It is a **contagious viral infection** that affects the **salivary glands and is usually mild and self-limiting.**
- ⊕ It is an acute disease of children and young adults.
- **Symptoms:** Painful swelling of jaw, fever, tiredness, appetite loss, and headache.
- **Spread:** Humans are **only known host for mumps virus,** which is spread via direct contact or by airborne droplets from upper respiratory tract of infected individuals.



Rann of Kutch (Gujarat)

Recently, the PM suggested tourists visit the Rann of Kutch for the Rann Utsav (The Dhordo Tent City).

About Rann of Kutch

- **Formation:** Ancient geological shifts transformed a shallow region of the Arabian Sea into what is now a seasonal salt marsh and desert terrain.
- **Geographical Features:** It spans across the border between India and Pakistan, consisting of the Great Rann and the Little Rann.
- **Biodiversity:** It's home to the wild ass sanctuary; only remaining habitat of the Indian wild ass (Khur)
- **Tribal hamlets** with cylindrical mud bhungas (huts) are the epicenter for Kutchi embroidery, Rogan painting (GI tags), etc.

Place in News



Lesotho (Capital: Maseru)

India sent 1,000 metric tonnes of rice to Lesotho as humanitarian aid to support food security and nutrition.

Political Features

- A landlocked country located entirely within South Africa.
- It's also known by the name The Mountain Kingdom.

Geographical Feature

- **Mountain:** Drakensberg and Maloti ranges
- **Rivers:** The **Orange River,** one of southern Africa's largest rivers, originates in the Lesotho Highlands.



AHMEDABAD



BENGALURU



BHOPAL



CHANDIGARH



DELHI



GUWAHATI



HYDERABAD



JAIPUR



JODHPUR



LUCKNOW



PRAYAGRAJ



PUNE



RANCHI