



World Day of Social Justice 2025

For Prelims: [World Day of Social Justice](#), [International Labour Organization \(ILO\)](#), [Denotified and Nomadic Tribes \(DNTs\)](#), [Fundamental Rights](#), [Inequality](#), [PM-AJAY](#), [SRESHTA](#), [NAMASTE](#), [SMILE](#), [PM-DAKSH Yojana](#).

For Mains: World day of social justice and its significance, Steps taken in India to ensure social justice in India.

[Source: PIB](#)

Why in News?

The [United Nations \(UN\)](#) observed [World Day of Social Justice \(WDSJ\)](#) on **20th February 2025** advocating against [poverty](#), [exclusion](#), and [unemployment](#) while promoting [equality and solidarity](#).

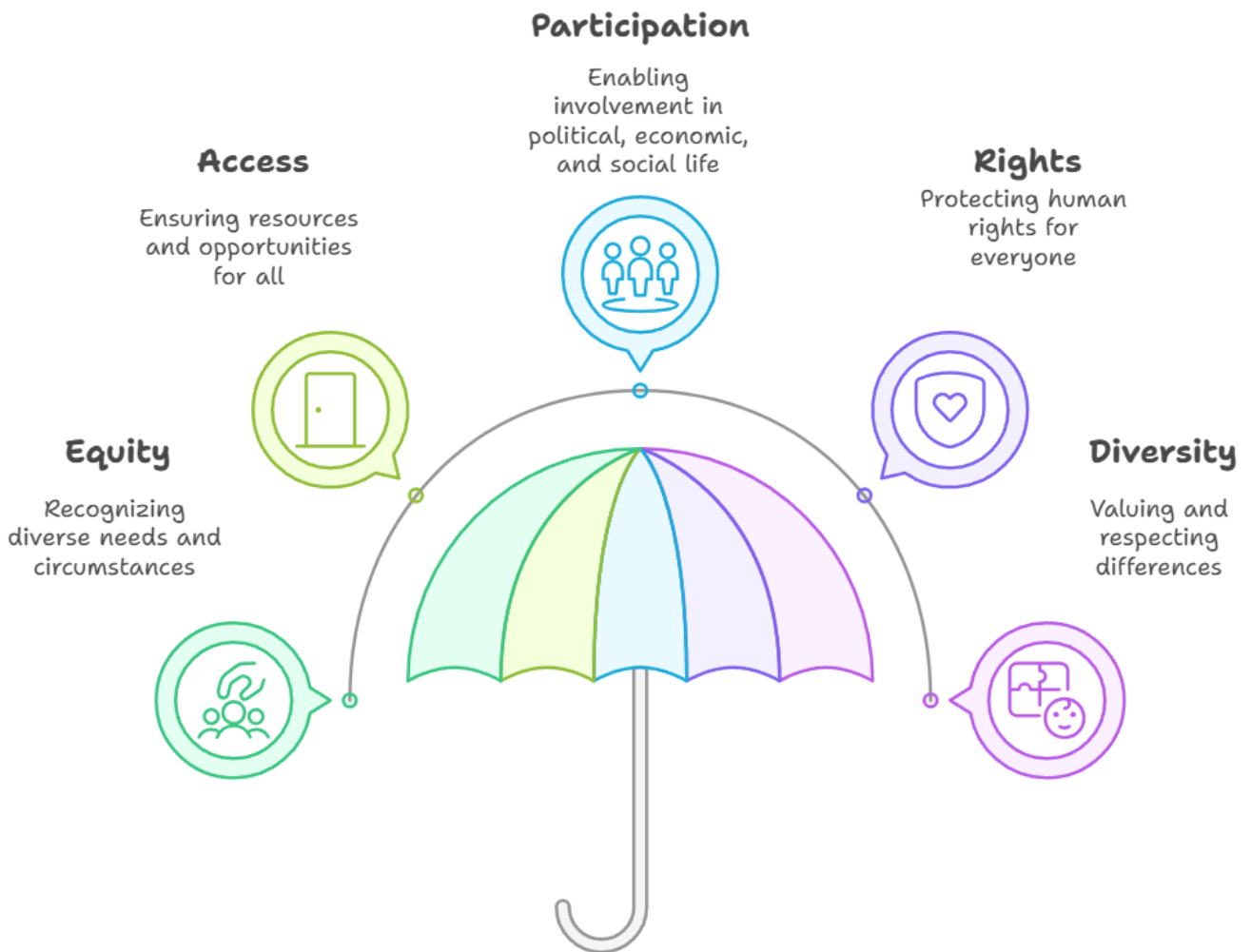
- The **2025 theme of WDSJ, “Empowering Inclusion: Bridging Gaps of Social Justice,”** focuses on **inclusive policies and social protection**, while highlighting the importance of “Strengthening a Just Transition for a Sustainable Future.”

What is World Day of Social Justice?

- **About:** It is an initiative of the **UN** specifically led by the [International Labour Organization \(ILO\)](#) to promote **social justice, equality, human rights**, and fair opportunities for all.
 - It was designated by the [UN General Assembly](#) on **26th November 2007**.
- **Pillars of Social Justice:**

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Pillars of Social Justice



- **Role of ILO:** ILO unanimously adopted the **Declaration on Social Justice for a Fair Globalization** on **10th June 2008** in response to the World Day of Social Justice.
 - It expands upon the **Philadelphia Declaration 1944** and the **Declaration on Fundamental Principles and Rights at Work 1998**.
 - In 2009, ILO launched **Social Protection Floors** that ensure **basic social security** to prevent or reduce poverty.
- **Social Justice in India:** In India, MoSJE is the **nodal agency** for uplifting vulnerable communities, including:
 - **Scheduled Castes**, Other Backward Classes, and Senior Citizens
 - Victims of Alcoholism and Substance Abuse
 - **Transgender Persons**, and **Denotified and Nomadic Tribes (DNTs)**,
 - Economically Backward Classes (EBCs), and the **Economically Weaker Section (EWS)**.
- **Significance:**
 - **Globalization:** The declaration redefined the ILO's role in globalization, ensuring **social justice** remains central to **economic policies**.
 - **Alignment with UN Goals:** It supports the UN's vision of **decent work, fair globalization, fundamental rights, social protections**, and productive social dialogue.

- **Global Stability:** Social justice is essential for **global peace and security** which remains threatened by labor insecurity, inequality, and social contract breakdowns.
- **Social Justice:** Achieving social justice requires **fundamental freedoms, human rights, and economic stability**.
- **Challenges:** Persistent issues such as **financial crises, insecurity, poverty, exclusion, and inequality** continue to hinder social justice on a global scale.

What are India's Constitutional Provisions on Social Justice?

- **Preamble:** It ensures **social, economic, and political justice**, guarantees **equality of status and opportunity**, and promotes fraternity to uphold individual **dignity** and national unity.
- **Fundamental Rights:**
 - **Article 23:** It **prohibits human trafficking and forced labour**, making such practices punishable by law.
 - **Article 24:** It **bans child labour** in hazardous occupations, protecting children's rights to safety and education.
- **Directive Principles of State Policy:**
 - **Article 38:** It directs the State to **reduce social and economic inequalities**.
 - **Article 39:** It ensures **equal livelihood, fair wages**, and protection from exploitation.
 - **Article 39A:** It guarantees **free legal aid** for disadvantaged people.
 - **Article 46:** It mandates special **educational and economic promotion** for SCs, STs, and weaker sections to prevent discrimination.

What are Initiatives for Ensuring Social Justice in India?

- **PM-AJAY:** **Pradhan Mantri Anusuchit Jaati Abhyuday Yojana (PM-AJAY)** supports Scheduled Caste (SC) communities through **skill development, income generation, and village infrastructure**.
 - It has three components i.e., **Adarsh Gram** development, **Grants-in-Aid** for socio-economic projects, and **hostel construction** in higher education institutions.
- **SRESHTA:** **Scheme for Residential Education for Students in High Schools in Targeted Areas (SRESHTA)** funds top **CBSE/State Board schools for SC students** in classes 9-12 and **supports NGOs** to run residential and non-residential schools and hostels.
- **Purple Fests (Festival of Inclusion):** It fosters **inclusion, dignity, and equal opportunities** for persons with disabilities (**Divyangjan**) promoting **solidarity and mutual respect**.
- **NAMASTE:** **National Action for Mechanized Sanitation Ecosystem (NAMASTE)** is a central sector scheme to ensure the **safety, dignity, and sustainable livelihood** of **sanitation workers in urban India**.
 - It was expanded to include **waste pickers** as a target group from FY 2024-25.
- **SMILE:** **Support for Marginalized Individuals for Livelihood and Enterprise (SMILE)** scheme is aimed at the **rehabilitation of transgender individuals** and persons engaged in **begging** to create **Begging-free India**.
 - It is currently implemented in **81 cities** and as of November, 2024, **7,660 beggars** were **identified**, and **970 rehabilitated**.
- **PM-DAKSH Yojana:** **Pradhan Mantri Dakshta Aur Kushalta Sampann Hitgrahi (PM-DAKSH) yojana** provides **free skill training** to **SCs, OBCs, EBCs, DNTs, and Safai Karamcharis** for economic empowerment.
- **Nasha Mukta Bharat Abhiyan (NMBA):** It aims for a **drug-free India** by targeting **272 high-risk districts** through **supply control** (Narcotics Control Bureau), **awareness and demand reduction** (MoSJE), and **treatment** (Ministry of Health).
 - Since its launch (15th August 2020), NMBA has reached **13.57 crore people**, including **4.42 crore youth**, with **3.85 lakh educational institutions** participating.

Conclusion

India's efforts towards **social justice** are rooted in **constitutional provisions and targeted schemes** addressing socio-economic disparities. By promoting inclusive policies, skill development, and

rehabilitation programs, the government aims to **uplift marginalized communities**, ensuring **dignity, equity, and sustainable livelihoods**, aligning with global commitments to social justice and empowerment.

Drishti Mains Question:

How do constitutional provisions in India support social justice? Discuss with examples of key government initiatives.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q. Other than the Fundamental Rights, which of the following parts of the Constitution of India reflect/reflects the principles and provisions of the Universal Declaration of Human Rights (1948)? (2020)

1. Preamble
2. Directive Principles of State Policy
3. Fundamental Duties

Select the correct answer using the code given below:

- (a) 1 and 2 only
(b) 2 only
(c) 1 and 3 only
(d) 1, 2 and 3

Ans: (d)

Q. 'Economic Justice' as one of the objectives of the Indian Constitution has been provided in (2013)

- (a) the Preamble and the Fundamental Rights
(b) the Preamble and the Directive Principles of State Policy
(c) the Fundamental Rights and the Directive Principles of State Policy
(d) None of the above

Ans: (b)

Mains

Q. Does the Rights of Persons with Disabilities Act, 2016 ensure effective mechanisms for empowerment and inclusion of the intended beneficiaries in the society? Discuss. (2017)

Inland Waterways in India

For Prelims: [PM Gati Shakti](#), National Waterway, Inland Waterways Authority of India, [Multi-Modal Logistics Park](#), [PM MITRA parks](#), [Mega Food Parks](#)

For Mains: Role of Inland Waterways in India's transportation network, Infrastructure & Development

[Source: PIB](#)

Why in News?

Prime Minister Narendra Modi has lauded the inauguration of the **Inland Waterways Transport (IWT) Terminal** at Jogighopa in Assam, highlighting [India's vast inland waterways](#)' (about 14,500 km of navigable waterways) potential for freight transport.

What are the Key Facts About Inland Waterways Transport Terminal at Jogighopa?

- **IWT Terminal:** Located in Assam, on the Brahmaputra River (**National Waterway-2 (NW-2)**).
 - The **Bangladesh Border (Dhubri) to Sadiya** stretch of the **Brahmaputra River (891 km) in Assam** was declared **NW-2** under the **National Waterway Act, 1988**.
- **Significance:** The **Jogighopa IWT Terminal** supports [PM Gati Shakti](#), enhancing inland waterways for economic growth.
 - It serves as an **international port of call** for Bhutan and Bangladesh, linking to the [Multi-Modal Logistics Park \(MMLP\)](#) at Jogighopa, boosting cargo movement and logistics in Assam and the Northeast.
 - It boosts **trade and commerce** with neighboring countries. Reduces **transportation costs** and **transit time**.
 - Strengthens [India's Act East Policy](#). Improves **multi-modal connectivity** by integrating road, rail, and waterways. Provides direct waterway access for Bhutan, reducing reliance on road networks.

What is Inland Waterways Transport?

- **About:** It refers to the movement of people and goods on navigable waterways such as rivers, canals, lakes, and other inland water bodies.
- **Legislative Framework:**
 - **Inland Waterways Authority of India Act, 1985:** Led to the **formation of Inland Waterways Authority of India (IWAI) in 1986**.
 - IWAI is an **autonomous organization** responsible for the **development, maintenance, and regulation** of NWs.
 - **National Waterways Act, 2016:** Declared **111 inland waterways** as NWs for **enhanced shipping and navigation**.
 - **Inland Vessels Act, 2021:** Replaced the Inland Vessels Act, 1917, introduced uniform regulations for inland vessels, ensuring safety, navigation, and compliance across India.
- **Criteria to be as a National Waterway:** A waterway qualifies as a **National Waterway** if it is **navigable by propelled vessels, and 50 km long** (except for urban areas and intra-port traffic).
 - It should serve **multiple states** or connect a **prosperous hinterland** or **major ports** or support strategic navigation for national security or link unserved **areas lacking other transport modes**.
- **Growth of Inland Waterways in India: 767% increase** in operational **National Waterways** since 2014, and **635% rise** in cargo handled.
 - Cargo traffic grew from 18 to 133 million tonnes (FY 2023-24) at a 22% **Compound**

Annual Growth Rate (CAGR).

- **Government Initiatives:** [Maritime India Vision 2030](#), [Sagarmala Programme](#), and [National Perspective Plan for interlinking rivers](#).
- **Major National Waterways in India:**

National Waterway (NW) No.	Location(s)
NW-1: Ganga-Bhagirathi-Hooghly River System (Haldia - Allahabad)	Uttar Pradesh, Bihar, Jharkhand, West Bengal
NW-3: West Coast Canal (Kottapuram - Kollam), Champakara and Udyogmandal Canals	Kerala
NW-4: Krishna River (Muktiyala - Vijayawada)	Andhra Pradesh
NW-10: Amba River	Maharashtra
NW-68: Mandovi River (Usgaon Bridge to Arabian Sea)	Goa
NW-73: Narmada River	Gujarat, Maharashtra
NW-100: Tapi River	Gujarat, Maharashtra
NW-97: Sunderbans Waterways (Namkhana to AtharaBanki Khal)	West Bengal (through Indo-Bangladesh Protocol Route)

What are the Benefits and Challenges in Developing IWT in India?

Category	Benefits	Challenges
Cost & Efficiency	Cost-effective and fuel-efficient transport mode	High siltation and shoal formation increase maintenance costs
Environmental Impact	Lower carbon emissions and eco-friendly transport	Seasonal depth fluctuations (many rivers have shallow depths) and dredging impact riverbeds, aquatic life, and lead to community resistance due to ecological concerns.
Traffic Reduction	Reduces congestion on roads and railways	Lack of adequate navigational aids and waterways transport terminals
Trade & Connectivity	Enhances domestic and cross-border trade (e.g., Indo-Bangladesh Protocol route)	Inconsistent water flow, as major portion is diverted for irrigation and industrial use
Regional Development	Boosts economic growth in remote areas	Infrastructure gaps, including inadequate jetties and ports
Tourism Potential	Promotes river tourism and cruise industry	Bridges and vertical clearance issues for large vessels
Private Investment	Encourages multi-modal transport integration	Limited private sector participation and investment

Way Forward

- **Cargo and Passenger Movement:** Integrate inland waterways with economic zones like [PM MITRA parks](#) and [Mega Food Parks](#) to boost cargo movement. Develop cruise tourism to enhance passenger transport via the [Cruise Bharat Mission](#).
 - Boost cargo movement under the [Jalvahak Scheme](#) with incentives and fixed scheduled services on key National Waterways.
- **Financial & Policy Support:** Create Inland Waterways Development Funds, enhance waterway-related infrastructure, preserve traditional navigation practices through the **Riverine Community Development Scheme**.
- **Public-Private Partnership:** Attract private investment in terminal development, vessel manufacturing, and cargo handling by providing financial incentives and tax benefits.
- **Sustainable Development:** Adopt **green vessels**, and **sustainable dredging techniques** are crucial for eco-friendly inland waterway development.
 - These measures will reduce pollution, protect aquatic ecosystems, and ensure long-term navigability while maintaining environmental balance.

Drishti Mains Question:

How can Inland Waterways contribute to India's multi-modal transport network

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. Enumerate the problems and prospects of inland water transport in India. **(2016)**

Climate Risk Index 2025

For Prelims: [Climate Change](#), Climate Risk Index 2025, [Floods](#), [Drought](#), [Cyclones](#)

For Mains: Key Findings of the Climate Risk Index 2025, Impact of Climate Change, Challenges and Mitigation Strategies

Source: [DTE](#)

Why in News?

The international environmental think tank 'Germanwatch' has released the **Climate Risk Index (CRI) 2025**.

What is Climate Risk Index 2025 and its Key Findings?

- **Climate Risk Index:**
 - **About:** CRI ranks countries based on their **vulnerability to extreme weather events**, assessing **human and economic losses** caused by climate-induced disasters.
 - **Frequency:** Released annually since **2006**, covering data from the past **30 years**.
 - **Methodology & Criteria:** CRI assesses the impacts of extreme weather events on countries across **six key indicators: economic losses, fatalities, and affected people**, both in absolute and relative terms.
- **Findings of Climate Risk Index 2025:**
 - Between 1993 and 2022, **over 765,000 lives were lost**, resulting in **economic losses of USD 4.2 trillion**.
 - The **floods, droughts, and storms** were the leading causes of **global displacement**.
 - In 1993-2022, **Dominica, China, and Honduras** were the **top-3 countries affected by extreme weather events**.
 - Myanmar, Italy, and **India** were among the other highly impacted countries.
 - **Pakistan, Belize, and Italy** were the **top-3 affected in 2022**.
 - 7 of the 10 worst-affected countries are low- and middle-income countries (LMICs).
- **Impact on India:** India ranked **6th most affected country (1993-2022)**, accounting for **80,000 fatalities (10% of global)** due to extreme weather events and 4.3% of global economic losses (USD 180 billion).
 - India has faced **severe floods** (1993, 2013, 2019), **intense heat waves** (~50°C in 1998, 2002, 2003, 2015), and destructive **cyclones** like **Gujarat (1998)**, Odisha (1999), Hudhud (2014), and Amphan (2020).

Note: The [Asia-Pacific \(APAC\) Climate Report 2024](#), by the Asian Development Bank projects that **India may face a 24.7% GDP loss by 2070** due to **climate change**, driven by rising sea levels and declining labour productivity.

What are the Key Challenges Related to Climate Change Mitigation Strategies as per the Report?

- **Historical Responsibility vs. Future Emissions:** High-income nations, despite their historical emissions, demand greater climate responsibility from emerging economies like India and China, leading to tensions over burden-sharing and climate finance commitments.
- **Global Temperature Breach:** The 1.5°C threshold was breached for a full year in 2024, exposing inadequate mitigation efforts.
 - Without higher ambition, including nationally determined contributions (NDCs), the world is on track for a temperature increase of 2.6-3.1°C by 2100.
- **Weak Climate Commitments:** Many countries are not updating their Nationally Determined Contributions (NDCs), creating a gap between promises and action. Poor policy implementation further weakens mitigation efforts.
- **Insufficient Climate Finance:** The USD 300 billion annual funding for developing nations is inadequate, and delays in operationalizing the Loss and Damage Fund hinder support for climate-vulnerable countries.

Read More:

- [What are the Major Challenges for India in Climate Adaptation?](#)
- [What Measures can India Adopt to Accelerate Climate Adaptation?](#)

What are the Key Suggestions to Combat Climate Change as per the Report?

- **Enhanced Climate Finance:** Greater financial and technical support is needed for vulnerable countries to adapt and manage climate-induced losses and damages.
- **Strengthening Mitigation Efforts:** Nations must scale up their Nationally Determined Contributions (NDCs) to restrict global warming to 1.5°C or lower.
- **Accountability of High-Income-High-Emission Countries:** Developed nations must expedite mitigation actions to curb rising human and economic costs.
- **Call for Urgent Climate Action:** Timely action in adaptation & mitigation is needed to avoid escalating climate-related losses in the future.

Drishti Mains Question:

Discuss the economic impacts of climate change and their influence on the global geoeconomic landscape.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q.1 In the context of India's preparation for Climate-Smart Agriculture, consider the following statements: (2021)

1. The 'Climate-Smart Village' approach in India is a part of a project led by the Climate Change, Agriculture and Food Security (CAAFS), an international research programme.
2. The project of CCAFS is carried out under Consultative Group on International Agricultural Research (CGIAR) headquartered in France.
3. The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in India is one of the CGIAR's research centres.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Ans: (d)

Q.2 Which of the following best describes/describe the aim of 'Green India Mission' of the Government of India? (2016)

1. Incorporating environmental benefits and costs into the Union and State Budgets thereby implementing the 'green accounting'.
2. Launching the second green revolution to enhance agricultural output so as to ensure food security to one and all in the future.
3. Restoring and enhancing forest cover and responding to climate change by a combination of adaptation and mitigation measures.

Select the correct answer using the code given below.

- (a) 1 only
- (b) 2 and 3 only
- (c) 3 only
- (d) 1, 2 and 3

Ans: (c)

Q.3 With reference to 'Global Climate Change Alliance', which of the following statements is/are correct? (2017)

1. It is an initiative of the European Union.
2. It provides technical and financial support to targeted developing countries to integrate climate change into their development policies and budgets.
3. It is coordinated by World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD).

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Ans: (a)

Mains

Q.1 Describe the major outcomes of the 26th session of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC). What are the commitments made by India in this conference? (2021)

Q.2 'Climate Change' is a global problem. How will India be affected by climate change? How Himalayan and coastal states of India be affected by climate change? (2017)

Detection of Most Energetic Neutrino

Source: TH

Scientists detected the **highest-energy neutrino** using the **KM3NeT (Cubic Kilometre Neutrino Telescope) observatory** in the **Mediterranean Sea**.

- It was 30 times more energetic than any previously observed, **1015 times more energetic than photons**, and **10,000 times more powerful** than particles from the **Large Hadron Collider**, the world's largest particle accelerator.

Cubic Kilometre Neutrino Telescope (KM3NeT): KM3NeT is an under construction **European research facility** in the **Mediterranean Sea** that studies **neutrinos**.

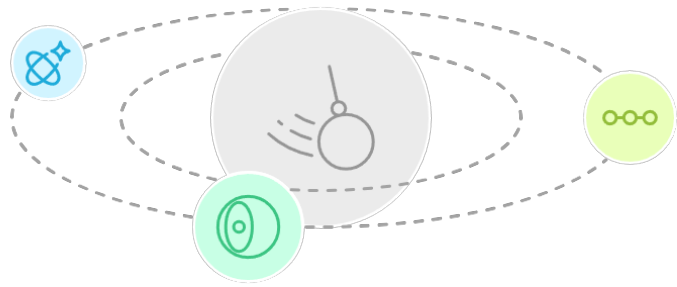
- It's designed to **detect neutrinos from distant sources** and from Earth's atmosphere.

Note: [India's Neutrino Observatory project](#) is proposed to be set up at Pottipuram village in Theni (Tamil Nadu) in a 1,200-metre-deep cave.

What are Neutrinos?

- **About:** Neutrinos, often called "**ghost particles**", are electrically neutral, nearly massless subatomic particles that rarely interact with matter.
 - This allows them to **travel vast distances** through stars, planets, and galaxies **without being deflected by magnetic fields**, making them reliable "cosmic messengers."
- **Sources of Neutrinos:**
 - **Natural Sources:** **Sun** (solar neutrinos), **Nuclear reactions in stars, supernovae**, and **cosmic rays**.
 - **Artificial Sources:** Nuclear reactors, radioactive decay and particle accelerators.
 - **Big Bang Neutrinos:** Remnants from the early universe, contributing to cosmological studies.
- **Types/Flavors of Neutrinos:**

Types/ Flavors of Neutrino



Electron Neutrino

Associated with electrons and produced in nuclear fusion and beta decay

Muon Neutrino

Linked to muons, produced in cosmic ray interactions

Tau Neutrino

Associated with tau particles, observed in accelerators and astrophysical events

- Neutrinos undergo **oscillation** (change from one flavour to another) while traveling due to **quantum mixing**.

- **Significance in Astrophysics:**

- Neutrinos, unlike cosmic rays, **travel undisturbed**, making them **crucial for tracing high-energy astrophysical events**.
- Scientists detect neutrinos using **deep-sea or ice observatories** that capture **Cherenkov radiation (a detectable flash of light)** from rare interactions.



FUNDAMENTAL

Neutrinos are fundamental particles, which means that—like quarks and photons and electrons—they cannot be broken down into any smaller bits.



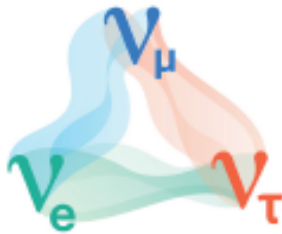
ABUNDANT

Of all particles with mass, neutrinos are the most abundant in nature. They're also some of the least interactive. Roughly a thousand trillion of them pass harmlessly through your body every second.



ELUSIVE

Neutrinos are difficult but not impossible to catch. Scientists have developed many different types of particle detectors to study them.



OSCILLATING

Neutrinos come in three types, called flavors. There are electron neutrinos, muon neutrinos and tau neutrinos. One of the strangest aspects of neutrinos is that they don't pick just one flavor and stick to it. They oscillate between all three.



LIGHTWEIGHT

Neutrinos weigh almost nothing, and they travel close to the speed of light. Neutrino masses are so small that so far no experiment has succeeded in measuring them. The masses of other fundamental particles come from the Higgs field, but neutrinos might get their masses another way.



DIVERSE

Neutrinos are created in many processes in nature. They are produced in the nuclear reactions in the sun, particle decays in the Earth, and the explosions of stars. They are also produced by particle accelerators and in nuclear power plants.



MYSTERIOUS

Neutrinos are mysterious. Experiments seem to hint at the possible existence of a fourth type of neutrino: a sterile neutrino, which would interact even more rarely than the others.



VERY MYSTERIOUS

Scientists also wonder if neutrinos are their own antiparticles. If they are, they could have played a role in the early universe, right after the big bang, when matter came to outnumber antimatter just enough to allow us to exist.

UPSC Civil Services Examination Previous Year Question (PYQ)

Q. In the context of modern scientific research, consider the following statements about 'IceCube', a particle detector located at South Pole, which was recently in the news: (2015)

1. It is the world's largest neutrino detector, encompassing a cubic kilometre of ice.
2. It is a powerful telescope to search for dark matter.
3. It is buried deep in the ice.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Ans: (d)

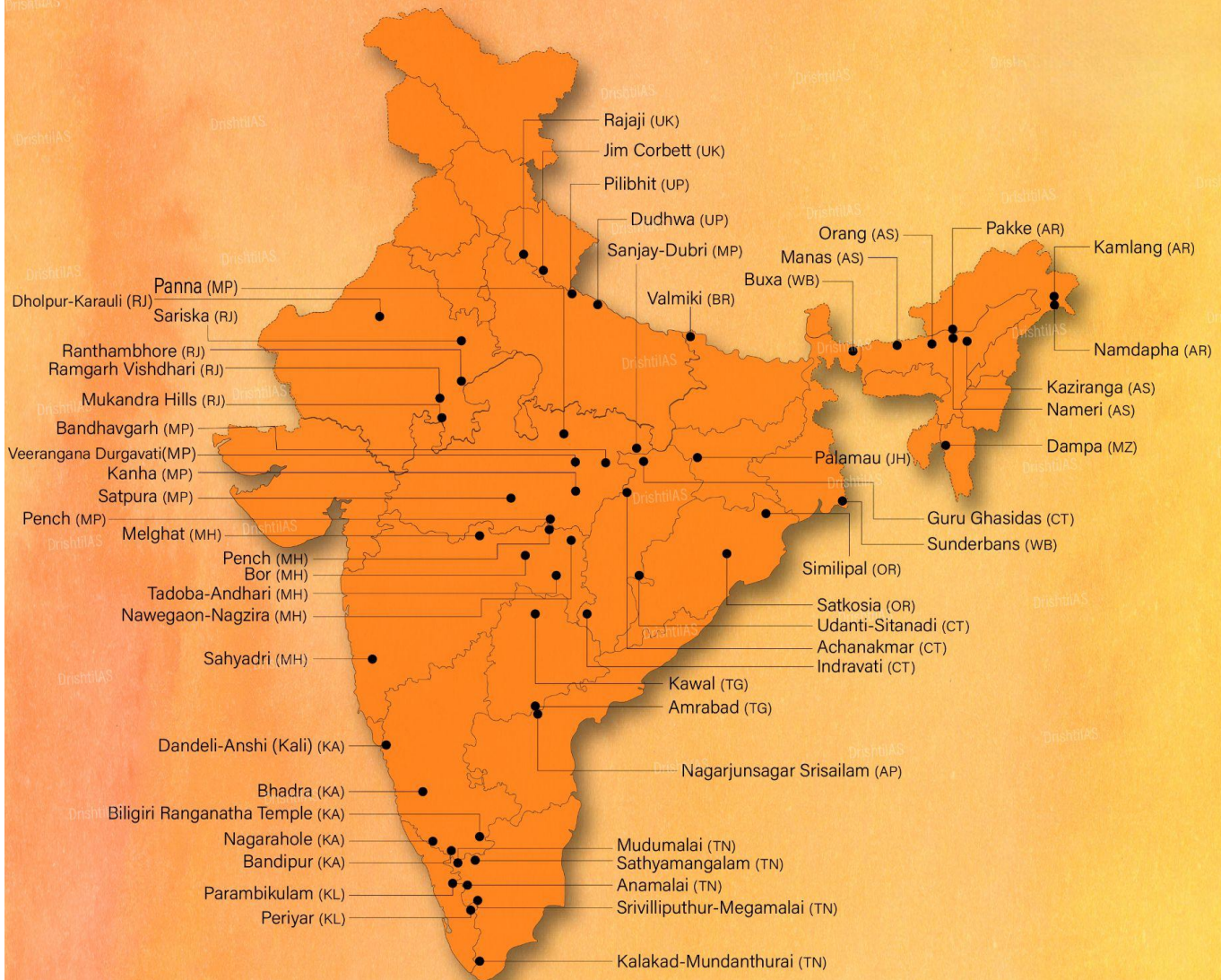
Parambikulam Tiger Reserve

Source: TH

A faunal survey at the [Parambikulam Tiger Reserve \(TR\)](#) in Kerala highlighted **key species** present in the reserve.

- **Important species:**
 - **Birds:** Rufus-bellied hawk-eagle, [Indian grey hornbill](#), [Great Indian hornbill](#), [Ceylon frogmouth](#) etc.
 - **Butterfly:** Five-bar swordtail, **Spot swordtail**, Southern birdwing (India's second largest butterfly species), **Nilgiri tiger** etc.
 - **Others:** Leopards, Lion-tailed macaques, [Smooth-coated otters](#).
- **About Parambikulam TR:** It is located in the **Palakkad and Thrissur districts** of Kerala and declared a [Tiger Reserve in 2009](#) under [Project Tiger](#).
 - It is a well-preserved ecological area within the **Nelliampathy-Anamalai landscape** of the Southern [Western Ghats](#) in India.
 - It is home to the **world's first scientifically managed teak plantation** and boasts the largest and oldest teak tree, named **Kannimara**.
 - The **Parambikulam, Sholayar, and Thekkady rivers** flow through the reserve.

Tiger Reserves



FACTS

- A State Government, on the recommendation of the National Tiger Conservation Authority, notify an area as a tiger reserve.
- Largest Tiger Reserve (Core Area): **Nagarjunsagar-Srisailem** (Andhra Pradesh).
- **Bor Tiger Reserve (Maharashtra)** is the smallest tiger reserve in India by area.
- Reserve with Highest Tiger Density: **Jim Corbett** (Uttarakhand) (India Tiger Estimation - 2022 Report).
- State with Maximum Tigers: **Madhya Pradesh** (India Tiger Estimation - 2022 Report).



Read More: [Early Migration of Butterflies](#)

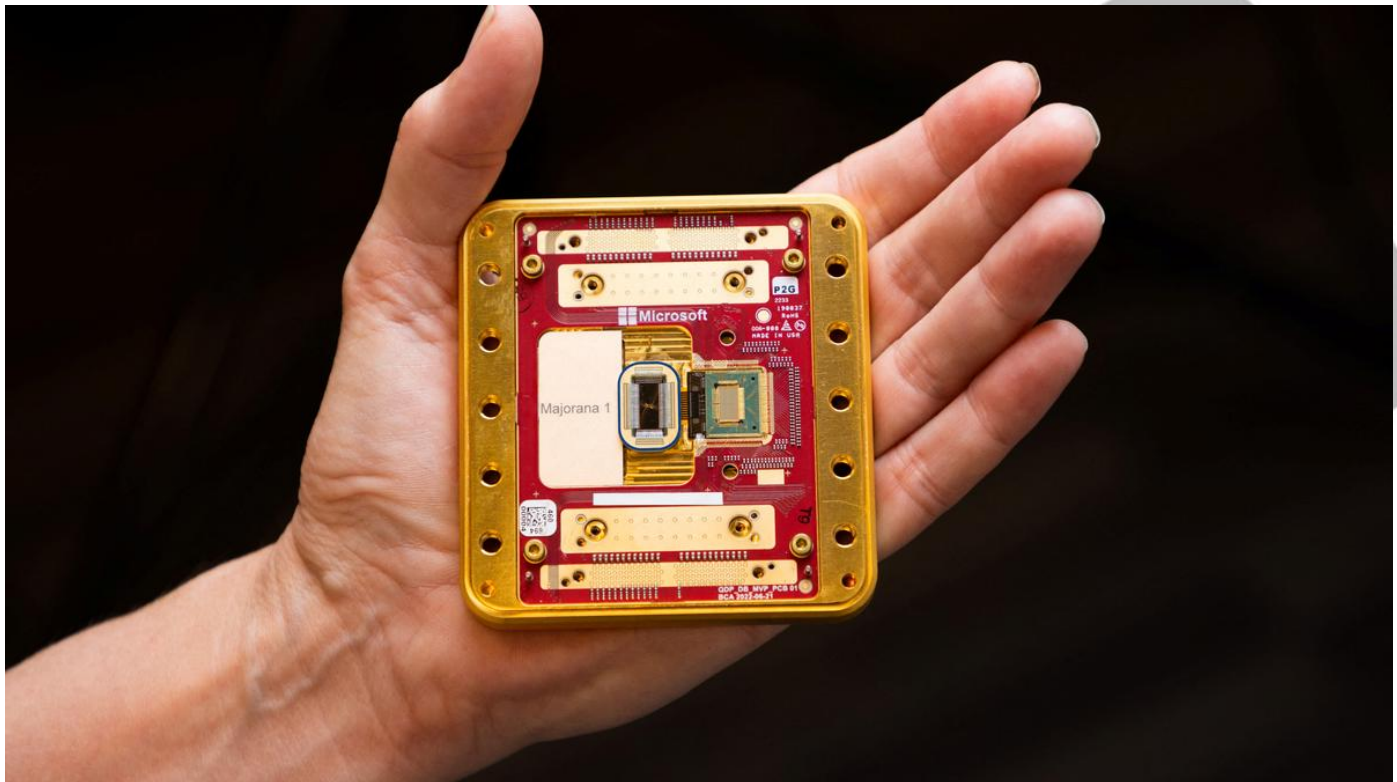
Majorana 1

Source: [TH](#)

Microsoft has introduced **Majorana 1**, the world's first quantum chip powered by a Topological

Core architecture, which aims to revolutionize [quantum computing](#).

- **Key Facts About Majorana 1:** It is the first quantum chip to utilize a **Topoconductor (Topological Superconductor)**, creating a new state of matter beyond solids, liquids, or gases, but a **topological state**.
 - It is composed of **indium arsenide (a semiconductor)** and **aluminum (a superconductor)**, enabling enhanced quantum stability and performance.
 - The chip relies on **Majorana fermions** that act as their **own antiparticles**.
 - It features **eight qubits**, but its **Topological Core architecture** enables error-resistant scaling to **one million qubits**, ensuring stable quantum computations.
 - Unlike classical computers using **binary bits (0s and 1s)**, quantum computers use **qubits**, which exist in multiple states simultaneously, enabling exponentially faster computations.
 - **Applications:** Could help in **breaking down microplastics, creating self-healing materials, improving healthcare solutions, and solving complex chemistry and materials science problems**.



Read more: [Quantum Technology](#)

Dinesh Khara Committee

Source: IE

The [Insurance Regulatory and Development Authority of India \(IRDAI\)](#) has formed a **7 member committee**, chaired by **Dinesh Khara** to review the **Insurance Act, 1938**.

- It aligns with the proposed **Insurance Amendment Bill**, which seeks to increase the **FDI** limit from **74% to 100%**.
 - Currently, **Insurance Act, 1938** provides a broad **legal framework** to regulate the

insurance sector.

- **Key reforms under consideration:**
 - **Composite licence** (life, health, and general insurance), Captive licence,
 - Differential capital (Adjusting capital needs based on risk profiles),
 - Reduction in **solvency norms**, Change in **investment regulations**
 - **One-time registration** for intermediaries etc.
- **IRDAI** is the **statutory body** established under the **IRDA Act, 1999** and is **responsible** for **regulating and promoting** the insurance industry in India.

Read More: [Insurance Sector in India](#)

First BioBank in a Zoo

Source: [IE](#)

- India's **first wildlife bio-bank at Padmaja Naidu Himalayan Zoological Park** (Darjeeling Zoo) is fully operational.
- Since its establishment in **July 2024**, it has collected DNA and tissue samples from **60 animals of 23 species**, prioritizing endangered species.
- **Biobank:** The **biobank (frozen zoo)** preserves **genetic material from animals for conservation and research.**
 - This includes cells, tissues, and reproductive samples of endangered and deceased animals.
 - The samples are stored in **cryogenic conditions (-196°C in liquid nitrogen)** to maintain genetic diversity.
 - It is part of a **national conservation plan**, in collaboration with the **Centre for Cellular and Molecular Biology (CCMB)**, under the **Ministry of Science and Technology.**
- In future, biobanks are planned to be set up at **Delhi National Zoo and Nandankanan Zoo (Odisha).**
- Species like the **American black-footed ferret** and **northern one-horned rhino** have been revived using **preserved DNA and captive breeding.**

Darjeeling Zoo:

- It is **India's largest high-altitude zoo**, specializing in **captive breeding of alpine species** like snow leopards, Himalayan wolves, and red pandas.
- It houses endangered fauna, including **gorals, Siberian tigers, and rare birds.**

Read More: [Darjeeling Zoo's Conservation Breeding Programme for Snow Leopards](#)

Digital Brand Identity Manual

Source: [PIB](#)

The **Ministry of Electronics and Information Technology (MeitY)** has launched the **Digital Brand Identity Manual (DBIM)** to establish a **standardized and seamless digital presence** across all government platforms.

- **DBIM:** It standardizes **color palettes, typography, and iconography** across **government websites, mobile apps, and social media** while introducing **Gov.In CMS**, a **centralized content management system** for seamless updates.
 - It ensures **common UI/UX (user interface/user experience) principles** for better accessibility and user experience of all government websites.
 - The **Central Content Publishing System (CCPS) of DBIM** enables **consistent updates** of official announcements, policies, and schemes.
- **Significance:** DBIM enhances "**Minimum Government, Maximum Governance**" by ensuring a **cohesive digital identity**, improving **accessibility**, streamlining **policy access** and strengthening India's **e-governance leadership**.

Read more: [Navigating India's Digital Growth](#)

PDF Reference URL: <https://www.drishtias.com/current-affairs-news-analysis-editorials/news-analysis/22-02-2025/print>

