

Factly Weekly

Compilation

2025

**For UPSC CSE Prelims
Exam**

2nd Week

July 2025

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Rashtriya Sarvekshen by PARAKH, 2024

News: The results of the PARAKH RS have revealed that Punjab, Himachal Pradesh, Kerala, Dadra Nagar Haveli and Daman & Diu and Chandigarh are the best performing States and Union Territories in school education.

About Rashtriya Sarvekshen by PARAKH

PARAKH Rashtriya Sarvekshan 2024: At a Glance

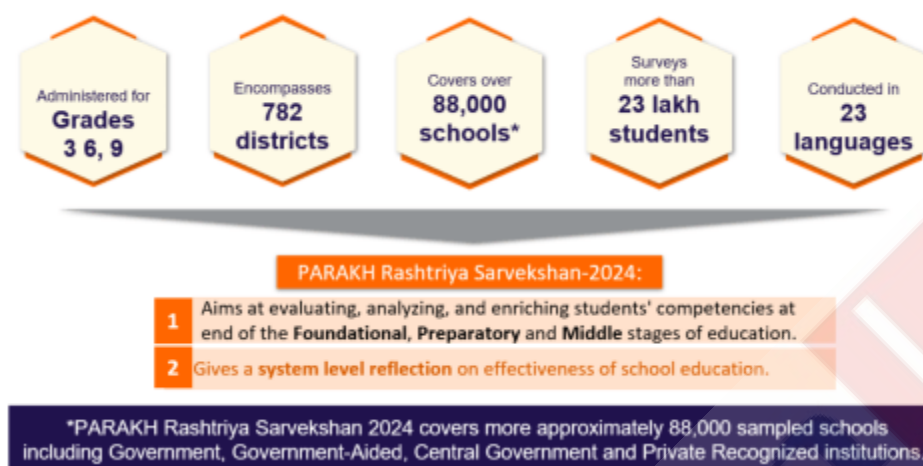


Figure 1. Source – NCERT

Educational Research and Training (**NCERT**)

- **Aim:** It aims to **evaluate the progress of learners** in the Foundational, Preparatory, and Middle stages of education, providing valuable insights into their development.
- **Sample system:** Samples for assessing the **foundational level** will be drawn from **grade 3**, for the **preparatory level** from **grade 6**, and for the **middle stage** from **grade 9**.
- **Focus areas:** The **four** major areas of focus for PARAKH are:
 - Capacity Development in Competency Based Assessment
 - Large-Scale Achievement Survey
 - Equivalence of School Boards
 - Holistic Progress Cards for the Foundational, Preparational, Middle and Secondary Stages.
- **Features of PARAKH, Rashtriya Sarvekshan 2024**
 - It operates at the **district level**, providing insights into student progress.
 - The survey uses a **paper-based** approach with **OMR technology**.

Key Highlights of PARAKH RS, 2024

- **Coverage:** It covered 21.15 lakh students from 74,229 schools across 781 districts in all 36 States and UTs.
- **Region-wise findings**
 - **Overall:** Punjab, Himachal Pradesh, Kerala, Dadra Nagar Haveli and Daman & Diu and Chandigarh are the **best performing States and Union Territories** in school education.
- **Grade-wise findings**
 - **Grade 3:**
 - **Punjab, Himachal Pradesh and Kerala** emerged as the **top** performing states in Grade 3.

- **Full name:** Performance Assessment, Review, and Analysis of Knowledge for Holistic Development (PARAKH) Rashtriya Sarvekshan (RS)
- **Earlier** it was known as the **National Achievement Survey (NAS)** conducted since 2001.
- **Conducted by:** National Council of





- **Sahebganj in Jharkhand** and **Reasi and Rajouri** from Jammu and Kashmir were the **low performing districts** for this segment.
- **Grade 6:**
 - **Kerala, Punjab and Dadra Nagar Haveli and Daman & Diu** were the top performers for **Grade 6**.
 - **North Garo Hills, South Garo Hills and South West Garo Hills of Meghalaya** were the **three low performing districts** in this category.
- **Grade 9:**
 - **Punjab, Kerala and Chandigarh** were the best performing States for **Grade 9**.
 - **Shi Yomi of Arunachal Pradesh, South West Garo Hills and North Garo Hills of Meghalaya** were the **low performing districts** in this segment.

Maize

News: The Agriculture Minister says that India aims to double maize output to 86 mn tonne by 2047.

About Maize

- Globally, maize is known as **queen of cereals** because it has the **highest genetic yield potential** among the cereals.
- It is the **second rated grain** used collectively in the form of foodstuff or fodder.
- It is also used as **animal feed in poultry**.
- **Conditions required**
 - **Climate:**

CLIMATE			
			
Temperature	Rainfall	Sowing Temperature	Harvesting Temperature
25°C - 30°C	50-100cm	25°C - 30°C	30-35°C

Source – Apni Kheti

- **Sowing season:** In India, maize is principally grown in **two seasons** – Monsoon (kharif) and winter (rabi).
 - **Kharif maize** represents around **83% of maize area** in India, while **rabi maize** correspond to **17% maize area**.
- **Soil:** Maize can be grown successfully in a **variety of soils** ranging from **loamy sand to clay loam**.
 - However, soils with **good organic matter content** having **high water holding capacity** with **neutral pH** are considered good for higher productivity.
- It requires a comparatively **lesser ripening timespan of three months**.

Maize Production in India

- **India** is the **5th largest producer** and **14th largest exporter** of Maize in the world.

- **Production:** India's maize production has grown from **10 million tonne in the 1900s to the current 42.3 million tonne.**
- **Yield:** India's average maize productivity stands at **7 tonne per hectare**, with some states like **West Bengal and Bihar** performing **above** the national average.
- **Producing states:** The predominant maize growing States that contribute more than 80% of the country's total maize production **are Andhra Pradesh (20.9%), Karnataka (16.5%), Rajasthan (9.9%), Maharashtra (9.1%), Bihar (8.9%), Uttar Pradesh (6.1%), Madhya Pradesh (5.7%) and Himachal Pradesh (4.4%).**
- **Varieties:** The Indian Council of Agricultural Research (ICAR) has developed **265 maize varieties**, including 77 hybrids and 35 bio-fortified varieties.
- **Major export destinations (2023-24):** Vietnam, Nepal, Bangladesh, Malaysia and Thailand.

NER District SDG Index (2023-24)

News: NITI Aayog releases second edition of the North Eastern Region District SDG Index (2023-24).

About NER District SDG Index (2023-24)

Top 10 districts in NER District SDG Index 2023-24

Top 10 districts

State	District	Score	Rank
Mizoram	Hnahthial	81.43	1
Mizoram	Champhai	79.86	2
Tripura	Gomati	78.79	3
Nagaland	Mokokchung	78.43	4
Tripura	West Tripura	77.64	5
Nagaland	Kohima	76.93	6
Tripura	South Tripura	76.71	7
Sikkim	Gangtok	76.64	8
Mizoram	Kolasib	76.50	9
Nagaland	Dimapur	76.29	10

Source – Niti Aayog

- **Developed by:** The Index is developed by the **NITI Aayog** and the **Ministry of Development of North Eastern Region (MoDoNER)**, with technical support from **UNDP**.
- **Objective:** The Index assesses the **performance of 121 districts across the eight North Eastern states** on the Sustainable Development Goals (SDGs).
- **First edition:** The first edition of Index was released in **August 2021**.
- **Categorization:** Districts are categorized into **four categories**:

- i. **Achiever:** Score equals 100 (achieved the targets set for identified indicators);
 - ii. **Front Runner:** Score between 65 and 99 (excluding 100);
 - iii. **Performer:** Score between 50 and 65 (excluding 65);
 - iv. **Aspirant:** Score less than 50.
- **Importance:** The Index serves as a **key policy tool** for evidence-based governance, resource allocation, and accelerating sustainable and inclusive development in the region.
 - **Key Findings**
 - **Highest and lowest rankings:** Hnathial in Mizoram emerged as the **top-performing district** with a composite score of 81.43, while Longding in Arunachal Pradesh ranked **lowest** at 58.71.
 - **All districts in Mizoram, Sikkim, and Tripura** achieved the **Front Runner status** (scores between 65–99), with **none** in the **Achiever** (score of 100) or **Aspirant** (score below 50) categories.
 - **Most consistent:** Sikkim showed the **most consistent performance** across districts, with **only a 5.5-point difference** between the highest and lowest scoring districts.
 - Tripura also performed strongly with **minimal intra-state variation**.

Namibia

News: Recently, Prime Minister Narendra Modi visited **Namibia**, marking the **first visit by an Indian Prime Minister to the country in nearly three decades**. This visit concludes his five-nation outreach to the Global South and seeks to strengthen cooperation.

About Namibia



Figure 2. Source: Atlas del Mundo

- It is located in **southwestern Africa**.
- **Bordering states:** It borders Angola, Zambia, Botswana, South Africa, and the Atlantic Ocean.
- The Orange River marks the southern border with South Africa, while the Kunene and Okavango Rivers partly form the northern border with Angola.
- It is the second least densely populated country in the world after Mongolia.
- **Capital:** Windhoek
- It gained **independence from South Africa** on **March 21, 1990**
- **Major geographical zones:** Namib Desert (west), Central Plateau, Kalahari (east)
- **Major rivers:** Kunene, Okavango, Zambezi, Orange
- **Climate:** Arid to semi-arid, low rainfall, high temperature variations
- **Major physical features:** Etosha Pan and Fish

River Canyon

- **Ethnic groups:** Ovambo (majority), Kavango, Herero, Nama, Damara
- **Most spoken languages:** English, Ovambo, Khoekhoe, and Afrikaans.

- **Economy:** Mining (diamonds, uranium, base metals) is the largest GDP contributor. **Agriculture** employs 35% but contributes only 11% to GDP. **Fishing** and **tourism** are key sectors
- **Major conservation areas:** Etosha National Park, Skeleton Coast, and Namib-Naukluft Park

World Bank Ranks India Among the Most Equal Countries

News: The World Bank's Spring 2025 Poverty and Equity Brief has ranked India as the fourth most equal country in the world based on the Gini Index, with a score of 25.5.

Key Highlights of the Report

The Gini Index is a statistical tool that **measures income inequality** within a country. A **score of 0** represents perfect equality, while **100** denotes perfect inequality.

- This Gini score is **lower than that of China (35.7), the USA (41.8), and the UK (34.4)**, indicating that income distribution in India is more equitable than in many advanced economies, including all **G7 and G20 countries**.
- Among 167 countries, **Slovak Republic** ranks first with a Gini score of **24.1**, followed by **Slovenia (24.3)**, **Belarus (24.4)**, and then **India (25.5)**.
- The report highlights that **India falls in the 'moderately low inequality' group** and is very close to joining the 'low inequality' category.
- **India has lifted 171 million people out of extreme poverty** since 2011–12.
- The **World Bank has also revised the global poverty line** from **\$2.15/day to \$3/day** to account for inflation and real consumption needs.
- As a result of this revision, the **extreme poverty rate in India** has dropped from **27.1% in 2011–12 to just 5.3% in 2022–23**, reducing the number of people living in extreme poverty from **344 million to 75 million**.

Kharai camels

News: In a dramatic rescue, 33 camels – belonging to the rare and endangered Kharai breed – were saved from the high tide in the Arabian Sea near Vadinar Jetty in Gujarat's Devbhumi Dwarka.

About Kharai camels



Figure 3. Source – DTE

- They are a rare and unique breed of **dromedary camel (with a single hump)**.
- They derive their name from the **local term "Khara,"** meaning **saline**, reflecting its **adaptability** to both **desert and**

coastal ecosystems.

- They are also known as the “**Swimming Camel**,” it can traverse long distances **across water**.
- **Habitat:** They are **endemic** to the **coastal regions of Kutch** in Gujarat state.
- **Features**
 - They can swim **up to 3 km in the open deep seas** and have **webbed feet** for swimming.
 - **Diet:** Their diet includes various **plants, shrubs and mangroves**.
 - They have a strong **digestive system to tolerate salty vegetation**.
 - **Ecological role:** Their **grazing** is a **pollinating process** that helps to **regenerate** the mangrove forests.
 - The camel’s **milk is rich in nutrients** and has potential **therapeutic benefits**.
- **Conservation:** They have been preserved by the **Rabari and Fakirani Jat tribes** (the camel pastoralist) for over 400 years.
- **Threats:**
 - Expanding salt pans have eaten up large tracts of dense and thriving mangroves
 - Industrial activities
 - Climate change
- **IUCN Status:** Endangered

Cat Bonds

News: In India, low penetration of disaster risk insurance like Cat bonds, for individual property and livelihoods leaves much of the population exposed to irretrievable damage and loss.

About Cat Bonds

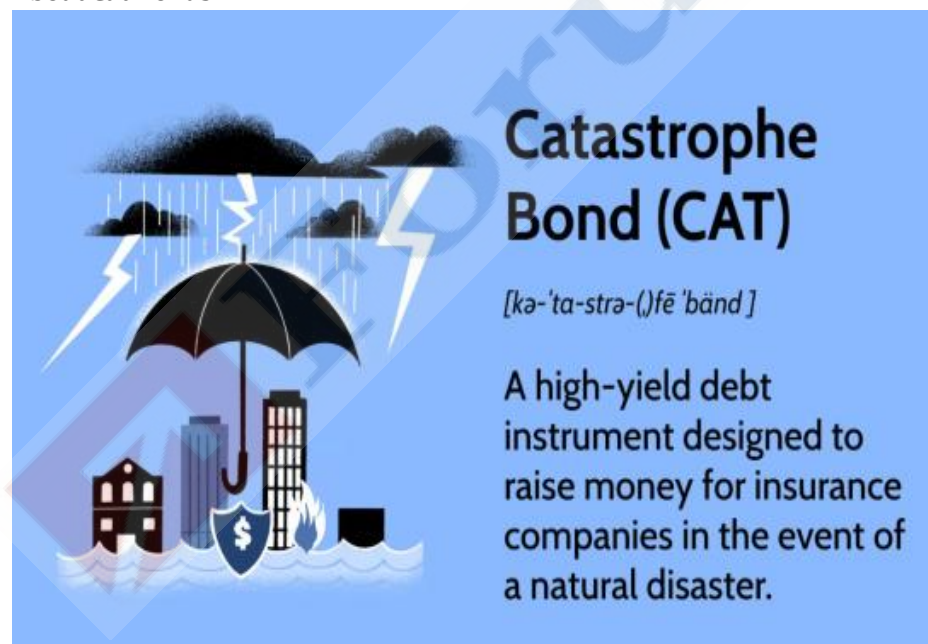


Figure 4. Source – Investopedia

- These are a **unique hybrid insurance-cum-debt financial product** that transforms **catastrophic insurance cover into a tradable security**.

- The term ‘cat bonds’ are a short for the ‘**catastrophic bonds**’.

- These are **effective in transferring pre-defined risk to bond investors**, ensuring quicker payouts and a much-reduced counter-party risk.

- **Working**

- **Bond creation:**

The **sovereign nations**

can **create** the bonds, **sponsor** it and **pay the premium**, with the **principal** being the **sum insured**.

- **Intermediaries:** The **sponsor** requires an **intermediary** to issue the bond to **reduce counter-party risk**. Intermediaries can include the **World Bank, the Asian Development Bank or a reinsurance company**.
- **Gain or loss:** If a **disaster occurs**, the **investor** runs the risk of **losing** a part of the principal.
 - That's the reason for **higher coupon rates** of such bonds, compared to regular debt instruments.
- **Variation in coupon rates:** There is much variation in coupon rates for a cat bond **depending on the risks** — earthquakes garner lower premiums, as low as 1-2%, compared to hurricanes or cyclones.
- **Need for India**
 - The **unpredictability** and **increase in frequency of extreme weather** events like cyclones, floods, forest fires and devastating earthquakes in South Asia have **increased India's exposure** to disaster-risk.
 - India needs to **ring-fence its public finances for post-disaster reconstruction**.
- **Disadvantages**
 - A **defectively designed cat bond** could lead to **no payout** despite a significant disaster.
 - **For example**, an earthquake cat bond designed for a magnitude threshold of 6.6M for a certain grid may fail if a 6.5M event occurs and causes extensive damage.
 - Despite a contract if a **disaster doesn't occur**, it could lead to **questions on the desirability of such expense**.

Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2025

News: The Union Ministry of Environment, Forest and Climate Change has recently notified the Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2025.

About Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2025



Figure 5. Source – DTE

- The Rules are released under the **Environment (Protection) Act, 1986**.
- They will come into force from **April 1, 2026**.
- They **amend** the existing **Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**.
- **Key provisions**

- **New EPR framework:** They introduce a **comprehensive Extended Producer Responsibility (EPR)** framework for **non-ferrous metals**, including **aluminum, copper and zinc and its alloys**.
 - They will be a significant step toward **circular economy principles**.
- **Recycling target:** The rules establish a **recycling target structure** that progressively increases from **10 per cent in 2026-2027 to 75 per cent by 2032-2033** for products made of **non-ferrous metals**.
- **Coverage:** The framework covers an extensive range of products, from **beverage cans and packaging foils to electrical fittings and furniture**.
- **Online portal:** An online portal will be established by the **Central Pollution Control Board (CPCB)**.
 - This portal will serve as a **single point for data collection** and will manage **registration** for all entities involved in the non-ferrous metal waste **ecosystem**, including
 - manufacturers,
 - producers,
 - collection agents,
 - refurbishers, and
 - recyclers.
 - It will also facilitate the **filing of half-yearly and annual returns**, the fulfillment of **EPR obligations**, and the **transaction of EPR certificates**.
- **Producers** can meet their **EPR targets by purchasing these certificates** from registered recyclers through the **online**
- **Validity of the EPR certificate:** They shall be valid for **two years from the end of the financial year** in which it was generated.

Admiralty (Jurisdiction & Settlement of Maritime Claims) Act, 2017

News: The Kerala High Court has ordered the conditional “arrest” of Liberian container ship MSC Akiteta II, after the Kerala government filed an admiralty suit.

About Admiralty (Jurisdiction & Settlement of Maritime Claims) Act, 2017



Figure 6. Source – Tol

- The Act governs **maritime disputes in India**.
- Under the Act, **admiralty suits can be filed for maritime claims** such as damage to ships, ownership and agreement disputes, loss of life, wage issues, and **environmental damage**.

- **Admiralty suit** is a **legal** proceeding pertaining to **maritime law and disputes**.
- The 2017 law replaced the colonial-era **Admiralty Court Act, 1861**, and **Colonial Courts of Admiralty Act, 1890**.
 - The **previous laws** gave jurisdiction **only to the High Courts of Bombay, Calcutta and Madras**, as these were the **only major ports in India earlier**.
 - Now, the HCs of **Kerala, Karnataka, Odisha, Telangana and Andhra Pradesh** also have jurisdiction over maritime disputes.
- **Court's jurisdiction:** The jurisdiction of the courts extends **up to the territorial waters** of their respective jurisdictions.
 - The limit of territorial waters is **up to 12 nautical miles** from the nearest point of a low-water line along the coast, including the **seabed, subsoil and airspace above**
- **Claims over environmental damages**
 - **Section 4 of the Admiralty Act:** This section states that the **High Court may exercise jurisdiction** to hear and determine any question on a maritime claim, against any vessel, arising out of damage caused by the vessel to the environment; measures taken to remove such damage; compensation for such damage etc.
 - **Under the Merchant Shipping Act, 1958**, **ship owners** are **liable for oil pollution damage** in the event of leaks.
 - **Environment Protection Act, 1986** empowers authorities to **take action against polluters**.
 - **National Green Tribunal (NGT)** can also be approached to seek environmental compensation.

Aspirational DMF Programme

News: Union Minister of Coal and Mines released operational guidelines of 'Aspirational DMF Programme' for the convergence of DMF initiatives with the Aspirational District Programme (ADP) and Aspirational Block Programmes (ABP).

About Aspirational DMF Programme



Source – PMO

- The programme is launched for the **convergence** of **District Mineral Foundation (DMF)** initiatives with the **Aspirational District Programme (ADP)** and **Aspirational Block Programmes (ABP)**.
- **Launched by:** Ministry of Coal and Mines
- **Feature:** Its guidelines are designed to **strategically align District Mineral Foundation (DMF)** planning and implementation with the development priorities identified under ADP and ABP, which focus on improving socio-economic indicators in India's most underserved regions.

About District Mineral Foundation (DMF)

- It is a **trust** set up as a **non-profit body**, in those **districts affected by the mining works**, through amendment in the **Mine and Minerals Development Regulation (Amendment) Act, 2015**.
- **Objective:** The objective of District Mineral Foundation is to work for the interest of the benefit of the persons and areas affected mining related operations in such manner as may be prescribed by the State Government.
- **Funding:** It is funded through the **contributions from the holder of major or minor mineral concession** in the district.
- **Composition:** The composition and functions of the District Mineral Foundation shall be such as may be prescribed by the State Government.
- **PMKKKY:** The **Pradhan Mantri Khanij Kshetra Kalyan Yojana** is implemented by the District Mineral Foundations from the funds accruing to them in terms of the MMDR Act, 1957.
 - PMKKKY provides for **utilization of at least 70% of the funds** for **high priority areas** like: (i) drinking water supply; (ii) environment preservation and pollution control measures; (iii) health care; (iv) education; (v) welfare of women and children; (vi) welfare of aged and

- disabled people; (vii) skill development; and (viii) sanitation ix) housing, (x) agriculture, and (xi) animal husbandry.
- While, **up to 30% of the funds** shall be utilized for other priority areas (i) physical infrastructure; (ii) irrigation; (iii) energy and watershed development; and (iv) any other measures for enhancing environmental quality in mining district.

INS Nistar

News: The Indian Navy is set to commission its first indigenously designed Diving Support Vessel (DSV) INS Nistar at the Naval Dockyard in Visakhapatnam on July 18.

About INS Nistar



Source – PIB

- It is India's **first indigenous Diving Support Vessel (DSV)**.
- **Built by:** The ship has been **indigenously designed** and constructed by state-owned **Hindustan Shipyard Limited**.
- It is the **first ship** of two-member class of DSVs, the **second being Nipun**.
- **Name:** The name of the ship '**Nistar**' in **Sanskrit** translates to **rendering rescue**.
- **Emblem:** An '**anchor**' which traditionally symbolises **reliability and faith**, and a '**dolphin**' regarded as a **seafarer's friend and a harbinger of fair weather**.
- **Motto:** Surakshita Yatharthta Shauryam (Deliverance with Precision and Bravery)
- **Features**
 - It has a length of approximately **120 metres** and displacement of more than **10,000 tonnes**.
 - **Indigenously built:** A total of 120 MSMEs have participated in the construction of this vessel, achieving more than **80 per cent indigenous content**.
 - **Equipments:**
 - It is the '**Mother Ship**' for the Deep Submergence Rescue Vehicle (**DSRV**).
 - Its onboard diving complex includes both air and saturation diving systems, along with underwater **Remotely Operated Vehicles (ROVs)** and **Side Scan SONAR**.

- **Functions:** These ships will be deployed for **deep sea diving and submarine rescue operations**.
 - It will be capable of conducting **search and rescue operations** and carrying out **helicopter operations** at sea.
- **Earlier version**
 - The erstwhile INS Nistar was acquired by the Indian Navy from the **erstwhile USSR in 1969** and was **commissioned in 1971**.
 - It was **decommissioned in 1989**.

TALASH Initiative

News: The National Education Society for Tribal Students (NESTS), an autonomous organization under the Union Ministry of Tribal Affairs has launched the TALASH initiative.

About TALASH Initiative

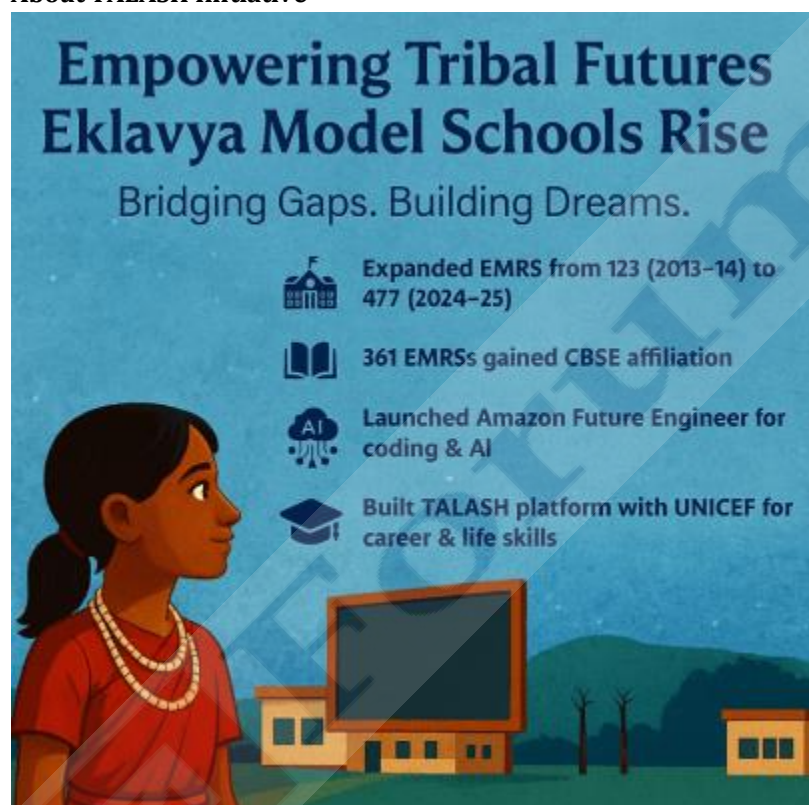


Figure 7. Source – MoTA

- **Full name:** Tribal Aptitude, Life Skills and Self-Esteem Hub
- It is a **national programme** to support the all-round development of **students in Eklavya Model Residential Schools (EMRSs)**.
 - It is an **innovative digital platform** designed to **equip EMRS students** with essential tools for **self-discovery and career planning**.
- **Launched by:** The program is launched by the National Education Society for Tribal Students (**NESTS**), in collaboration with **UNICEF India**.
- **Aim:** It aims to improve both the **education and personal growth of tribal students** across India.
- **Expected outcomes:** It is expected to benefit over 1,38,336 students enrolled in EMRSs across 28 States and 8 Union Territories, making it a truly national movement

for **inclusive education**.

- **The initiative offers:**
 - **Psychometric Assessments:** Inspired by **NCERT's 'Tamanna' initiative**, TALASH offers a common aptitude test to help understand each student's strengths and interests.
 - Based on the test results, students receive **Career Cards** that suggest the best career options suited to their skills and abilities.
 - **Career Counselling:** The platform guides students toward informed career decisions, helping them align their aspirations with their aptitudes.

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- **Life Skills & Self-Esteem Modules:** TALASH has special sections that help students learn important life skills like solving problems, communication skills, and handling emotions. These build confidence and self-value of students.
- **E-Learning for Teachers:** A specialized portal equips educators with resources and training to effectively mentor and support students in their academic and personal journeys.

About NESTS

- The **National Education Society for Tribal Students (NESTS)** is an **autonomous organization** under the **Ministry of Tribal Affairs**.
- It is dedicated to **providing quality education to tribal students** through Eklavya Model Residential Schools (**EMRSs**) across India.

Lake Turkana

News: The scientists have found 18-20 million years old enamel proteins from tropical Turkana Lake basin, unraveling palaeobiology of extinct taxa.

About Lake Turkana

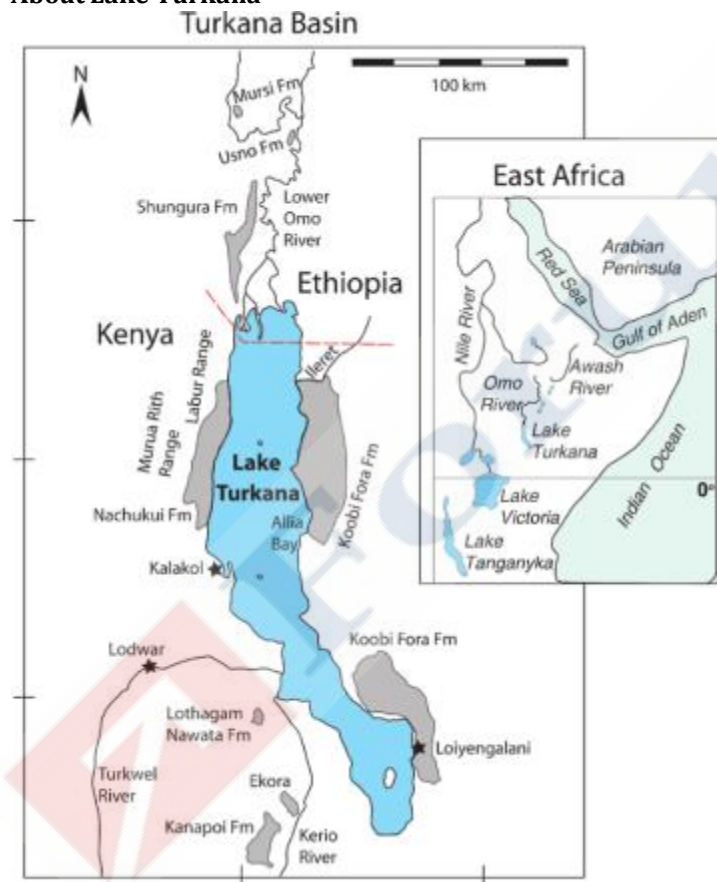


Figure 8. Source – ResearchGate

- It is a **saline lake** located mainly in northern Kenya, with its northern end stretching into Ethiopia.
- It lies in the **eastern arm of eastern Africa's Rift Valley**, which is part of the East African Rift System.
- It is the **world's largest permanent desert lake** and the **world's largest alkaline lake**.
- **By volume** it is the **world's fourth-largest salt lake** after the Caspian Sea, Issyk-Kul, and Lake Van (passing the shrinking South Aral Sea).
- **Type:** It is an **endorheic lake** (meaning no outflow) and water loss occurs mainly through **evaporation**.
- **Water source:** Its only **perennial tributary** is the **Omo River**, which flows from **Ethiopia**.
- **Biodiversity:** The Lake hosts 79 fish species, including 12 endemics, and the **largest population of Nile crocodiles**.
- **Recognition:** The Lake Turkana National Parks site was inscribed on the **World Heritage List in 1997**.

- **Threat:** Lake Turkana is now threatened by the **construction of the Gilgel Gibe III Dam in Ethiopia** due to the **damming of the Omo river** which supplies most of the lake's water.

Machine Vision-Based Inspection System (MVIS)

News: Indian Railways has signed an MoU with the Dedicated Freight Corridor Corporation of India Limited (DFCCIL) for the installation of a Machine Vision-Based Inspection System (MVIS).

About Machine Vision-Based Inspection System (MVIS)



Source – PIB

- It is an **automated system** designed to **detect defects in Rolling Stock**.
 - It **leverages the power of AI and machine learning** to automate and optimize the inspection process of rolling stock.
- **Functioning**
 - It is equipped with technologies that **capture high-resolution images of the under-gear of moving trains** and **automatically detect** any hanging, loose, or missing components.
 - **On the detection of anomalies**, the system generates **real-time alerts** to facilitate prompt response and preventive action.
- **Importance**
 - The technology is expected to significantly **enhance the safety** of train operations, **reduce manual inspection**, and help **avoid potential accidents** and service disruptions.
- **Advantages**
 - The primary advantage of MVIS is its **ability to carry out consistent monitoring without disrupting regular train services**.
 - It **reduces reliance on manual inspections** and **frees up skilled labour** for critical repair and maintenance tasks.
 - It will **detect problems before they become serious**, which minimises service disruptions and helps keep trains running on schedule.

ASTRA Missile

News: DRDO and the IAF successfully conducted flight tests of the Astra missile off the coast of Odisha.

About ASTRA – Indigenous Beyond Visual Range Air-to-Air Missile

- Astra is an indigenously developed **Beyond Visual Range Air-to-Air Missile (BVRAAM)** comprising the missile and its launcher.

- It has been jointly developed by the **Defence Research and Development Organisation (DRDO)** and the **Indian Air Force (IAF)**.
- The missile is designed to intercept and eliminate highly maneuverable aerial targets flying at supersonic speeds.

Specifications

- The missile has an operational range of **80 to 110 kilometers**.
- It can **operate at altitudes of up to 20 kilometers**.
- Astra is **3840 mm in length** and has a **diameter of 178 mm**.
- Its **flight duration** ranges **between 100 to 120 seconds**.
- The missile is **equipped with a high-explosive pre-fragmented warhead**.
- It can **travel at speeds up to Mach 4.5**.
- Astra is powered by a **solid rocket motor propulsion system**.
- It **uses a radar proximity fuse** for detonation.
- The guidance system includes **inertial navigation, mid-course updates, and terminal active radar homing** with a range of 13 kilometers.
- Advanced guidance and navigation systems enable ASTRA to deliver highly accurate strikes.
- The missile is **launched from the Su-30 MKI aircraft platform**.

'Ordinarily Resident' in Electoral Rolls in India

News: The Election Commission of India (EC) has initiated a Special Intensive Revision (SIR) of the electoral rolls in Bihar, kindling the debate around the term 'ordinarily resident'.

'Ordinarily Resident' in Electoral Rolls in India



Figure 9. Source – ET

- **Section 19 of the Representation of the People Act (RP Act), 1950** mandates that a person must be '**ordinarily resident**' in a constituency to be included in its **electoral roll**.

- **Section 20 of the RP Act** defines the term '**ordinarily resident**'.

- **Definition:** A person is said to be ordinarily resident in a place if **he uses that place for sleeping**. He **need not be eating in that place** and may be eating from a place outside.

- This Section clarifies that **ownership of property alone does not confer ordinary residence**.

- **Temporary absence** from

residence **does not affect ordinary residency status**.

- **Special categories:** Certain groups—**armed forces personnel, those employed abroad by the government and constitutional office holders**—are deemed **ordinarily resident** where they would have been otherwise.

- Persons in jail, legal custody, or certain institutions are **not considered** ordinarily resident at those locations.
- **Section 20A (added in 2010)** allows **Non-Resident Indians (NRIs)** to **register and vote** in their home constituencies based on passport address.
- **Judicial precedent:** In **Manmohan Singh case, 1999**; the Gauhati High Court has interpreted ordinary residence as **habitual, permanent residence with intent to dwell**.

Aircraft Accident Investigation Bureau (AAIB)

News: The Aircraft Accident Investigation Bureau (AAIB) has released a preliminary report of the deadly Air India flight crash in Ahmedabad.

About Aircraft Accident Investigation Bureau (AAIB)



Figure 10. Source – AAIB

- It is India's **official agency** responsible for **investigating civil aviation accidents and serious incidents**.

- It operates under the **Ministry of Civil Aviation (MoCA)** and functions **independently** from **regulatory bodies** to ensure unbiased, evidence-based investigations in line with international standards.

- **Legal basis**

- **Aircraft Act, 1934 (Section 7):** The Act empowers the government to

make rules for investigating aircraft accidents.

- Until 2012, the **Air Safety Directorate of the Directorate General of Civil Aviation (under the aviation ministry)** investigated accidents and safety-related incidents.
- **Aircraft (Investigation of Accidents and Incidents) Rules, 2012 (amended in 2017 and 2021):** The Rules formalize AAIB's mandate, powers, and procedures.
- **International alignment:** The body functions in accordance with **Annex 13 of the Chicago Convention (International Civil Aviation Organization, ICAO)**, which sets global standards for aircraft accident investigations.
- **Functions**
 - **Categorization of "occurrences":** It classifies 'Safety Occurrences' involving aircraft operating in the Indian airspace into the **categories of Accidents, Serious Incidents and Incidents**.
 - **Investigation:** It investigates **all accidents and serious incidents** involving aircraft with **All Up Weight (the total weight of an aircraft with passengers and cargo) of more than 2,250 kg**, as well as **Turbojet aircraft**.

- **Objective:** The sole **objective** of the investigations carried out by AAIB is the **prevention of accidents and incidents** and **not to apportion blame or liability**.
- **Evidence collection:** It deputes one or more Investigators to **reach the site and gather evidence** soon after it receives notice of the incident.
 - The **aim** is to **gather and preserve perishable evidence**, including the samples of the wreckage and retrieving the black boxes, and so on.
- **Report:** It publishes the report after completion of Investigation and acceptance of the same by the Director General, AAIB, on its website.
 - The accepted **Reports** are also forwarded to **International Civil Aviation Organisation (ICAO)** and the **States participating** in the investigation.
- It also conducts **safety studies** from time to time.
- It also facilitates the **investigation and administrative work of Court or Assessors** appointed by the Central Government as per **Rule 12** of Aircraft (Investigation of Accidents and Incidents) Rules, 2017.

Gharial, Sloth Bear added to Centre's critically endangered species scheme

News: The Standing Committee of National Board for Wildlife (SCNBWL) has recommended the inclusion of gharial and sloth bear in the Centre's Species Recovery Programme.

Gharial, Sloth Bear added to Centre's critically endangered species scheme



Source – MoEFCC

About Gharials

- It is a species of **Asian crocodilian** distinguished by their **long, thin snouts** which resembles a **pot (ghara in Hindi)**.
- **Habitat:** They prefer to live in **riverine habitats** with deep, clear, fast-moving water and steep, sandy banks.
- **Distribution:** It was once found across **Bangladesh, Bhutan, India, Myanmar, Nepal and Pakistan**.
 - However, currently it survives in several severely fragmented populations in **India and Nepal**.

- **In India**, Gharials are present in Chambal, Yamuna, Ganga, Son, Sharda, Girwa, Gandak, Ramganga, Mahanadi and Brahmaputra
- **Conservation status**
 - **IUCN Red list**: Critically Endangered
 - **Wild Life (Protection) Act, 1972**: Schedule I
 - **CITES**: Appendix I
- **Threats**: Construction of Dam, barrages, and water abstraction, entanglement in fishing nets, River bed cultivation and sand mining.
- **Conservation initiatives**
 - **Project Crocodile**: Indian government launched the **Project** with **UNDP** and **FAO** in **1975**.
 - It included an **intensive captive rearing and breeding programme** intended to revive dwindling gharial population.
 - The **National Chambal Sanctuary** (Madhya Pradesh, Rajasthan and Uttar Pradesh) and **Ken Gharial Wildlife Sanctuary (Madhya Pradesh)** are wildlife sanctuaries in India.

About Sloth bears

- Sloth bears are **one of the eight bear species** found across the world.
- They are **myrmecophagous**, i.e. they find **bugs and termites** to be their most sought after meal.
- **Habitat**: It is a forest-dwelling bears that inhabits tropical or subtropical regions of India and Sri Lanka.
- **Distribution**: Around **90% of the species' population** is found in **India**. A small population of bears is also found in **Nepal and Sri Lanka**.
- **Characteristics**
 - They are very **fond of honey**, hence their alternative name of "honey bear".
 - They **do not hibernate**.
- **Threats**
 - Exploited as dancing bears by the nomadic Kalandar community members
 - Human sloth bear conflict in States like Gujarat, Rajasthan and Maharashtra
 - Habitat loss
 - Poaching for body parts
 - Hunted because of their aggressive behaviour and destruction of crops
- **Conservation Status**
 - **IUCN Red List**: Vulnerable
 - **CITES**: Appendix I
 - **Wildlife (Protection) Act of India, 1972**: Schedule I

About Endangered Species Recovery Plans (ESRP)

- It is a **targeted conservation initiative** in India aimed at **protecting, reviving, and ensuring the long-term survival of critically endangered and threatened species**.
- It operates under the broader framework of the **Integrated Development of Wildlife Habitats (IDWH)**, a **centrally sponsored scheme** of the Ministry of Environment, Forest and Climate Change (MoEFCC).
- **Implementing agency**: Wildlife Institute of India (WII)

- So far, **24 (with gharial and sloth bear) species** including Snow Leopard, Asiatic Lion, Great Indian Bustard etc. have been identified under the Species recovery programme.

Jarawa Tribe

News: Considering the 16th census, experts believe that conducting a census among the six main indigenous tribes in the Andaman and Nicobar Islands will not be tough. This is because the Central Government has already made contact and is running several welfare measures for these tribes.

About Jarawa Tribe

- The **Jarawa** are an **indigenous nomadic tribe** living on the **Andaman Islands** in India.
- They are believed to have migrated from Africa nearly **50,000–60,000 years ago**.
- The Jarawas are among the **world's oldest surviving tribal groups**.
- The **Jarawa tribe** is recognized as a **Particularly Vulnerable Tribal Group (PVTG)**.
- They reside primarily in regions of **Middle and South Andaman Islands**, areas known for their **dense tropical forests, mangrove ecosystems, and unspoiled coastlines**.
- They live in small groups of **40–50 people**. The **Jarawa** build their shelters, called **chhappas**, within the forest and typically shift their location every few months.
- They maintain a largely **egalitarian society**, with **no formal leadership or hierarchical structure**.
- The Jarawas possess a **rich cultural and historical heritage**, with well-developed **beliefs, customs**, and their own unique **language, Jarawa**.
- They are also known for their **skill in music and dance**, which form an integral part of their cultural expression.
- They hunt **wild pigs, turtles**, and **fish** using **bows and arrows** and collect **fruits, roots, tubers**, and **wild honey**.
- They make their bows from **chooi wood**, which they collect from **Baratang Island**.
- There are about **400 Jarawa people** today.

Nominated Members of Rajya Sabha

News: The government has nominated four people of eminence to the Rajya Sabha, including former foreign secretary Harsh Vardhan Shringla, Special Public Prosecutor Ujjwal Nikam, C Sadanandan Master, and historian Meenakshi Jain.

About Nominated Members of Rajya Sabha



Source – Mathrubhumi

Constitution provisions regarding Nominated Members of Rajya Sabha

- **Article 80:** “Composition of the Council of States” – The Council of States shall consist of:
 - **Twelve members to be nominated** by the **President** in accordance with the provisions of **clause (3)**;
 - **Not more than two hundred and thirty-eight (238)** representatives of the **States** and of the **Union territories**.
- **Qualification:** **Clause 3 of the Article 80** lays down the qualifications for the appointment:
 - The members to be nominated by the President shall consist of **persons having special knowledge or practical experience** in respect of such matters as the following, namely — **Literature, science, art and social service**.
- **Powers and Privileges of Nominated Members**
 - The nominated member can **join a political party within six months** of taking his/ her seat in the House.
 - They **enjoy all the powers and privileges** to which the elected Members of Parliament are entitled.
 - They can **take part in the proceedings of the House** in the normal manner.
 - **Voting:** They are **not allowed to vote in the election of the President**.
 - They do have the **right to vote in the election of the Vice-President**.

Maratha Military Landscapes included in UNESCO World Heritage List

News: Maratha Military Landscapes of India has been inscribed on the UNESCO World Heritage List, becoming India's 44th property to receive this recognition.

About Maratha Military Landscapes included in UNESCO World Heritage List

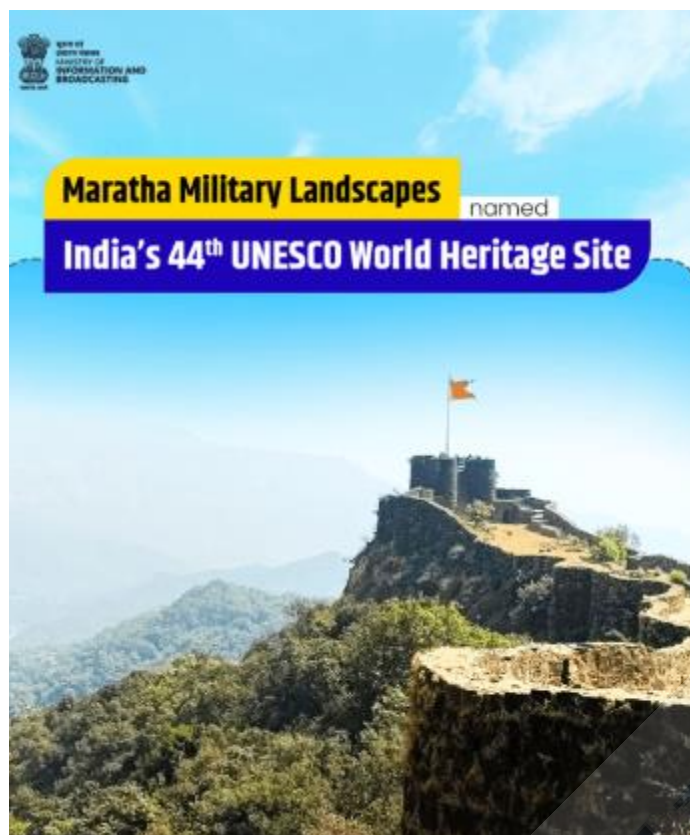


Figure 11. Source – MIB

- It is an extraordinary **network of twelve forts** that demonstrates the **strategic military vision** and **architectural ingenuity** of the Maratha Empire.

- Built in the period **from 17th century to 19th century**.

- **Distribution:** The Landscapes include **twelve** majestic forts, **eleven of which are in Maharashtra** and **one is in Tamil Nadu**.

- The selected sites, include Salher, Shivneri, Lohgad, Khanderi, Raigad, Rajgad, Pratapgad, Suvarnadurg, Panhala, Vijaydurg, and Sindhudurg in Maharashtra, along with **Gingee Fort in Tamil Nadu**.

- **Protection level:** Protected under –

- **Archaeological Survey of India:** Shivneri fort, Lohgad, Raigad, Suvarnadurg, Panhala fort, Vijaydurg, Sindhudurg and Gingee fort.

- **Directorate of Archaeology and Museums, Government of Maharashtra:** Salher fort, Rajgad, Khanderi fort and Pratapgarh fort.

- **Terrain:** The forts are located across a range of diverse terrains reflecting a

sophisticated understanding of geography and strategic defence planning.

- **Hill forts:** Salher, Shivneri, Lohgad, Raigad, Rajgad, and Gingee forts
- **Hill-forest fort:** Pratapgad fort
- **Hill-plateau fort:** Panhala fort
- **Coastal fort:** Vijaydurg fort
- **Island forts:** Khanderi, Suvarnadurg, and Sindhudurg forts
- **Importance:** Together, they form a **cohesive military landscape** that highlights the **innovation and regional adaptation of fortification traditions in India**.

Note: India ranks **6th globally and 2nd in Asia Pacific Region** for the **most number** (44 as of July 15th, 2025) of World Heritage Sites.

Exercise Talisman Sabre 2025

News: India has made its debut in Australia's largest bilateral military exercise, Exercise Talisman Sabre, marking a significant milestone in the deepening defence and security cooperation between the two nations in the Indo-Pacific region.

About Exercise Talisman Sabre 2025

Source – Australian Army

- It is a **biennial, multinational military exercise** led by **Australia and the United States**.
- **Objectives**

- Enhance joint operational capability and readiness in simulated crisis-action planning and multi-domain operations.
- Strengthen coalition partnerships and collective security arrangements.
- **Inaugural edition:** Talisman Sabre began in **2005** as a **biennial joint exercise between the United States and Australia**.
- **2025 edition:** It is the **11th edition** and will involve approximately **35,000 military personnel from 19 countries** and an additional **3 observer countries**, making it one of the **largest iterations of the exercise** to date.
- **Participating countries:** Canada, Fiji, France, Germany, **India (for the first time)**, Indonesia, Japan, the Netherlands, New Zealand, Norway, Papua New Guinea, the Philippines, South Korea, Singapore, Thailand, Tonga, and the United Kingdom.
 - **Malaysia and Vietnam** are attending as **observers**.
- **Locations:** The exercise is conducted **primarily across Australia** (notably **Queensland**, the Northern Territory, and offshore ranges)
 - The exercise will also take place in **Papua New Guinea**, Australia's nearest neighbor. It is the **first time** Talisman Sabre activities have been held outside Australia.

Arboviral Diseases

News- The WHO has released its first integrated guidelines for managing arboviral diseases

About Arboviral Diseases

- **Arboviral diseases** are infections caused by **arthropod-borne viruses transmitted to humans through bites of infected insects, mainly mosquitoes and ticks**.
- It is commonly transmitted by **Aedes mosquitoes**.
- The *Aedes aegypti* mosquito **can transmit several viruses** within the same region, often at the same time.
- **Example:** Common examples include **West Nile, Zika, Chikungunya, Dengue, and Eastern equine encephalitis**.
- **Transmission:** Some viruses may also spread through **blood transfusion, organ transplant, sexual contact, or mother-to-child transmission**.
- **Symptoms:** Fever, diarrhoea, vomiting, body aches, skin rash, bleeding (in dengue and yellow fever), headache, neck stiffness, excessive sleepiness, seizures, and unconsciousness—often appearing within a few days to two weeks after a mosquito or tick bite.
- **Prevention:** Use insect repellents, wear protective clothing, and eliminate standing water to reduce mosquito breeding. Ensure window and door screens are intact.

Global Risk & Impact

- Over **5.6 billion people** globally are **at risk** of arboviral infections.
- These diseases are **endemic to tropical and subtropical regions** and are **rapidly expanding** in range.
- Infections often appear with **similar flu-like symptoms**, making diagnosis challenging.
- **Simultaneous circulation** of multiple arboviruses is common in several regions.