

WHO releases progress report on Neglected Tropical Diseases (NTDs)

- The report deals with progress made in 2023 towards the **Road map for NTDs 2021–2030** which has targets of
 - ⊕ 90% reduction in the number of people requiring treatment for NTDs;
 - ⊕ 75% reduction in disability-adjusted life year (DALYs) related to NTDs;
 - ⊕ Eliminate at least one NTD from 100 countries;
 - ⊕ Eradicate two diseases (dracunculiasis and yaws) globally.
- **Findings of the report**
 - ⊕ 1.62 billion people required interventions against NTDs in 2022.
 - ⊕ 5 countries eliminated one NTDs, and one country eliminated two NTDs in 2023.
 - ⊕ **India related findings**
 - ◆ 40.56% of Indian people required interventions against NTDs in 2022.
 - ◆ India was certified free of dracunculiasis (2000) and yaws (2016).
- **Key challenges with NTDs**
 - ⊕ **Lack of reliable data** on a number of NTDs
 - ⊕ **Underdiagnosis and under-reporting** due to inadequate surveillance and detection
 - ⊕ **Inadequate funding and slow adoption** of new NTD interventions
 - ⊕ **High out-of-pocket expenditure** makes poor populations more vulnerable
- **Recommendations**
 - ⊕ **Accelerate progress** in high-burden countries
 - ⊕ **Repositioning NTDs** within the global health agenda (e.g. health emergencies, pandemic prevention, One Health etc.)
 - ⊕ **Developing a work plan** for 2025–2030, with a proper timeline and targets.

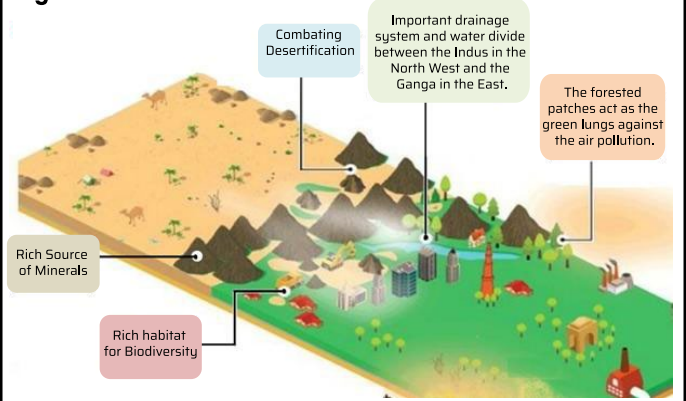
Neglected Tropical Diseases (NTDs)

- NTDs are a **diverse group of conditions of parasitic, bacterial, viral, fungal and non-communicable origin.**
- Mainly prevalent in **tropical areas.**
- Called '**neglected**' as they are almost absent from the **global health agenda.**
- It includes diseases such as **yaws, chikungunya, dengue, trachoma, dracunculiasis, leprosy, lymphatic filariasis, rabies, soil-transmitted helminthiases, leishmaniasis.**

Supreme Court bars four states from granting fresh mining leases in Aravallis

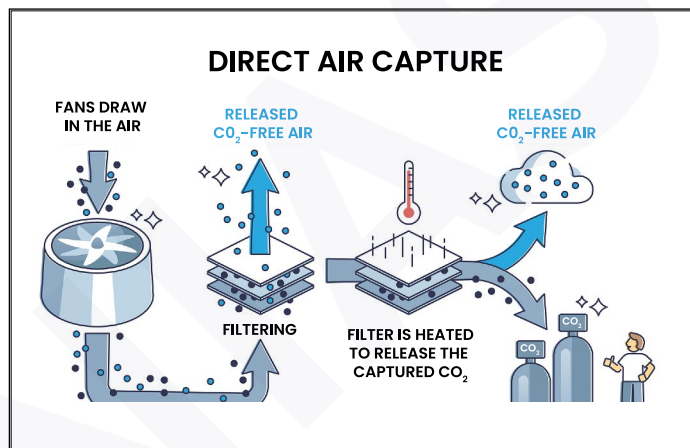
- The Court's order **covers Delhi, Rajasthan, Haryana and Gujarat**, four States where The Aravallis reside.
 - ⊕ According to **report** submitted by Central Empowered Committee (CEC), **Aravallis includes hills and a uniform 100-metre-wide buffer zone** around hills.
 - ◆ CEC was established by SC order in **T.N. Godavarman Thirumalpad case** to oversee SC's environmental rulings.
- **About Aravallis**
 - ⊕ Aravalli Range is one of the world's oldest fold mountains **stretching over about 350 miles.**
 - ◆ It formed during the Precambrian period.
 - ⊕ **Flora and Fauna:** Leopards, striped hyenas, golden jackals, palm civets, and Indian crested porcupines, etc.
 - ◆ It features **dry deciduous forests.**
 - ⊕ **Rivers:** Give rise to Banas, Luni, Sakhi, and Sabarmati.
 - ⊕ **Highest Peak:** **Guru Shikhar** (Rajasthan).
- **Major threats to Aravallis range**
 - ⊕ **Mining:** 31 hills of Aravallis area of Rajasthan were found to have vanished in 2018 due to illegal mining.
 - ⊕ **Deforestation:** Due to increased demand for timber and urbanisation has resulted in biodiversity loss and land degradation.
 - ⊕ **Undermining of Natural Conservation Zone (NCZ) by Haryana:** NCZ is a protected area designation in Haryana, India. The **2021 Regional Plan passed by the NCR Planning Board** zoned entire Aravalli range in Delhi, Haryana, and Rajasthan as NCZ.

Significance of Aravallis



World's largest Direct Air Capture and Storage (DAC+S) plant, Mammoth, starts operation in Iceland

- It is **second commercial DAC+S facility** of Swiss Company Climeworks and is much larger than its predecessor Orca.
- **DAC+S Technology:**
 - ⊕ A **Carbon Dioxide Removal (CDR) technology** which capture CO₂ directly from atmosphere at any location.
 - ◆ It is **distinct from carbon capture** which is generally carried out at point of emissions.
 - ⊕ CO₂ can be **permanently stored in deep geological formations (DAC+S)** or **used** for various applications.
- **About CDR:**
 - ⊕ CDR refers to **anthropogenic activities that remove CO₂ from atmosphere** and **store it durably** in geological, terrestrial, or ocean reservoirs.
 - ⊕ According to IPCC Sixth Assessment Report, **CDR is necessary element to achieve net-zero CO₂ and GHG emissions.**
- **Other CDR technologies:**
 - ⊕ **Afforestation/Reforestation and Soil Carbon Sequestration:** Fixing atmospheric carbon in biomass and soils.
 - ⊕ **Enhanced Weathering:** Mining of rocks containing minerals that naturally absorb CO₂.
 - ⊕ **Ocean-based CDR:** Ocean fertilisation (adding nutrients to upper layers), ocean alkalinity enhancement (transformation of CO₂ as bicarbonate/carbonate), coastal blue carbon management etc.
 - ⊕ **Bioenergy with Carbon Capture and Storage (BECCS):** Using biomass as energy for CDR and storing biogenic carbon geologically.
- **Challenges in CDR:** Higher energy needs and costs, Air Pollution (through Mining), Significant land and water demand, ocean acidification etc.



“Agritech: Shaping Agriculture in Emerging Economies, Today and Tomorrow” Report released by World Economic Forum (WEF)

- It is an outcome of WEF’s **AI for Agriculture Innovation (AI4AI)** initiative, which aims to **scale agritech (agricultural technology) services through public-private partnerships.**
 - ⊕ It elaborates on the role of agritech in shaping the agriculture ecosystem across four **broad categories** (see table).

Category	Work Area	Use Cases
Intelligent crop planning	Creating a detailed, market-oriented and sustainable crop plan.	Gene Editing and use of AI, soil testing-based advice.
Smart Farming	Use of technologies to improve efficiency in farm operations.	AI and Augmented Reality (AR) for crop planning, hyperlocal weather predictions, yield prediction and distributed ledger-based index insurance.
Farmgate-to-fork	Connecting farmers to market and addressing underlying issues like crop loss between farm and market.	Traceability, Internet of Things (IoT) enabled warehousing, smart logistics.
Data as an enabler	Ease of access to high quality, usable data.	Use of Digital Public Infrastructure (DPI) for farmers’ welfare.

- **Challenges in agritech adoption:**
 - ⊕ **High up-front acquisition costs** and lack of uniform standards.
 - ⊕ **Farm data sharing and ownership** issues.
 - ⊕ Unclear return on investment.
- **Way forward:**
 - ⊕ **Gender-inclusive** digital architecture.
 - ⊕ **Public-private partnership** for scaling agritech.
 - ⊕ Educate and **generate interest** in farmers.

India’s Initiative for Agritech adoption

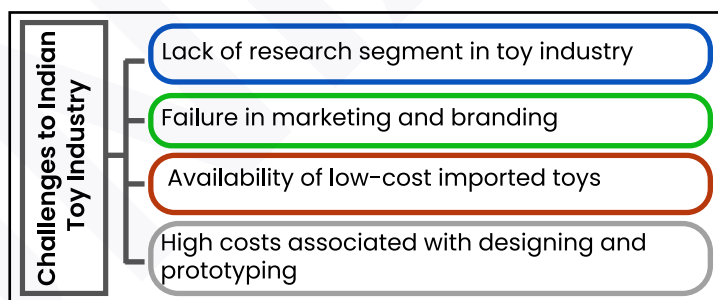
- **Agri Stack:** Facilitates the delivery of agritech services to farmers by government and agri-tech start-ups.
 - ⊕ It holds **three primary datasets:** farmer identity; geotagged farm location; and crops-sown data.
- **Agricultural Data Exchange (ADeX):** India’s first data exchange platform for farmer services.
- **Digital Agriculture Mission (DAM):** Includes India Digital Ecosystem of Agriculture (IDEA), Farmers Database, Unified Farmers Service Interface (UFSI), National e-Governance Plan in Agriculture (NeGPA).

No import of ammunition from next year: Army

- India has found **indigenous suppliers** for 150 of the total 175 types of ammunition.
 - ⊕ Currently, only 5 to 10 per cent of the ammunition requirement is being met from imports.
- **Reasons for boost in Indigenous supply**
 - ⊕ **Five positive indigenisation lists:** Positive indigenisation lists are lists of items released by the Indian Ministry of Defence (MoD) that India can make domestically and will not be imported.
 - ⊕ **Corporatisation of Indian Ordnance Factories:** In 2021, the Government converted the production units of the Ordnance Factory Board into 07 Defence Public Sector Undertakings to enhance functional autonomy and efficiency.
 - ⊕ **Private player participation:** Adani Group has recently unveiled India's first private sector ammunition-missile manufacturing complex in Uttar Pradesh.
- **Significance for Defence Indigenisation**
 - ⊕ **Strategic autonomy:** Achieving self-reliance in defence and reducing import dependency for military hardware is important for India to maintain its strategic autonomy.
 - ⊕ **Export potential:** Ramping up ammunition production also helps to position India as a reliable supplier in the international market.
 - ⊕ **Prevention from disruption of the supply chain.**
 - ⊕ **More cost-effective** than importing equipment.
 - ⊕ It will boost **tech innovation**.

"Beyond Import Reduction: Shaping the Future of India's Toy Industry," report by Global Trade Research Initiative (GTRI)

- Report proposes a **comprehensive strategy** aimed at developing India's toy industry and boosting exports.
- **Key highlights of report:**
 - ⊕ **India's toy imports** decreased from US\$ 304.1 million (FY2019) to US\$ 64.9 million (FY2024).
 - ⊕ **Share of imports from China dropped** from 87% in FY2019 to 64% in FY2024.
 - ◆ Imports increased from ASEAN countries, Sri Lanka, and Czech Republic.
 - ⊕ **Exports decreased** from US\$ 177 million in FY2022 to US\$ 152.3 million in 2024.
 - ⊕ **India represents only 0.3% of the global toy exports.**
- **Measures taken to promote local toy industry:**
 - ⊕ **Import duty increase:** Basic Custom Duty (BCD) was increased to 70% in 2021, creating competitive advantage for local industry.
 - ⊕ **Quality Control Order (QCO):** Mandatory compliance with specific Indian Standards for safety.
 - ⊕ **Scheme of Funds for the Regeneration of Traditional Industries (SFURTI)** to support Toy clusters.
 - ⊕ **National Action Plan for Toys (NAPT)** having 21 specific action points.



- **Proposed strategy to boost exports:**
 - ⊕ **Invest in R&D,** create specialized toy manufacturing hubs, and modernize traditional Indian toys.
 - ⊕ Encourage **Global Toy Brands to Manufacture** in India.
 - ⊕ **Adopt best practices** to produce low-cost and high-quality toys.
 - ⊕ **Localize Production** of key inputs like imitation stones, plastics, electric motors etc.

Also in News



Rat Hole Mining

- Despite a **ban from National Green Tribunal in 2014**, none of 26,000 abandoned rat-hole coal mines in East Jaintia Hills district of Meghalaya have been shut down.
- **About Rat Hole Mining:**
 - ⊕ Involves **digging of narrow pits into ground**, typically just large enough for one person to descend and **extract coal**.
 - ⊕ Mostly **prevalent in Meghalaya** because of thinness of coal mines there.
 - ⊕ **Types:** Side-cutting procedure (**Extraction of coal through narrow tunnels**), Box-cutting (**Vertical pit is dug through rectangular opening**)
 - ⊕ **Issues:**
 - ◆ **Land degradation,** deforestation, **Soil erosion,** water pollution.
 - ◆ **Lacking safety measures** such as proper ventilation, structural support, or safety gear for workers.
 - ◆ **Child Labour**



Kamikaze Drones

- India's first kamikaze drone has been developed by Kadet Defence Systems in collaboration with Defence Research Development Organisation (DRDO).
- **About Kamikaze drones**
 - ⊕ Also known as **Loitering Aerial Munitions (LAM)** or **Suicidal drone** (crashes onto target) or **Switchblade drones**.
 - ⊕ **Features:**
 - ◆ It can loiter over target area for a long duration for **precise target identification**.
 - ◆ Has **precision target capability**, can change targets mid-flight or even abort the mission.
 - ◆ Adaptable to **various terrains**, including deserts, plains, and high-altitude environments.
 - ◆ **Loitering capacity:** Around 12 hours.
 - ◆ **Flying range:** 150 km to 300 kilometers.



Exemptions to Right To Information (RTI) Act

- ▶ Delhi High Court has said that difficulty in collating data is not a ground to deny information under RTI Act.
 - ⊖ **Section 8** of RTI Act deals with exemption from disclosure of information.
- ▶ **Exemptions of information**
 - ⊖ If it affects the **sovereignty and integrity of India**.
 - ⊖ **Information forbidden to be published by any court of law or tribunal**.
 - ⊖ **Information related to trade secrets**.
 - ⊖ **Notwithstanding anything in the Official Secrets Act, 1923**, a public authority may allow access to information, if public interest in disclosure outweighs the harm to the protected interests.



1954 Hague Convention

- ▶ UNESCO recently celebrated 70th anniversary of adoption of **Convention for the Protection of Cultural Property in the Event of Armed Conflict**.
- ▶ **About Convention:**
 - ⊖ First international legal framework entirely dedicated to **protection of movable and immovable heritage**.
 - ⊖ It **protects cultural property** whether during **peacetime or armed conflict**.
 - ⊖ **Member states:** 135 including India.
 - ⊖ **Convention and its two Protocols (1954 and 1999)** have been adopted **under the auspices of UNESCO**.
 - ◆ 1999 protocol to the convention provides for the list of **Cultural Properties under Enhanced Protection**.



Sonai Rupai Wildlife Sanctuary

- ▶ National Green Tribunal has taken notice of polling stations, schools and other construction activities in Sonai Rupai Wildlife Sanctuary.
- ▶ **About Sonai Rupai Wildlife Sanctuary**
 - ⊖ It is located in the **foothills of the Himalayas** in the Sonitpur district of **Assam**.
 - ⊖ Together with Nameri National Park, it forms part of **Sonitpur Kameng Elephant Reserve**.
 - ⊖ It is an **Important Bird Area** recognized by Birdlife International.
 - ⊖ **Fauna:** Asian Elephant, Indian Bison, Leopard, Indian Gaur, Sambar, Hog Deer, Sloth Bear.
 - ⊖ **Flora:** Evergreen, Semi-evergreen and Moist Deciduous forests
 - ⊖ **Perennial Rivers:** Dolsiri, Gabharu, Gelgeli, Belsiri, and Sonairupai.



Bakanae Disease or Foot Rot

- ▶ Punjab Agricultural University has developed a biocontrol agent, **Trichoderma asperellum**, to manage 'foot rot' or 'bakanae', a common disease in Basmati rice.
- ▶ **About Bakanae Disease**
 - ⊖ Bakanae is a **seedborne fungal disease** that infects plants through roots or crowns.
 - ⊖ Infected plants are **abnormally tall with pale, thin leaves**, produce fewer tillers, and produce only **partially filled or empty grains**.
 - ⊖ Caused by the fungus **Gibberella Fujikuroi**, it can affect **both young and mature plants**.
 - ⊖ **Management Strategies:** Seed treatment using fungicides and salt water can be used to separate lightweight infected seeds.



Anthropogenic Change and Infectious Diseases

- ▶ A new study suggests that **anthropogenic change is contributing to the rise in emerging infectious diseases**.
 - ⊖ Infectious diseases are caused by **pathogenic microorganisms**, such as bacteria, viruses, parasites or fungi.
- ▶ **Findings of the study:**
 - ⊖ Infectious disease risk is modified by **biodiversity loss, climate change, chemical pollution, landscape transformations and species introductions**.
 - ◆ **Biodiversity loss** is considered the **biggest environmental driver** of infectious disease outbreaks.
 - ⊖ **Urbanization is associated with decreases** in disease endpoints.
 - ⊖ **Reducing greenhouse gas emissions, managing ecosystem health, and preventing biological invasions** could help to reduce the burden of plant, animal and human diseases.



Typhoid

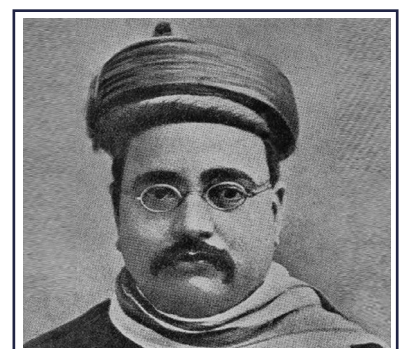
- ▶ Incorrect diagnosis tendency of single widal test is making it **difficult to accurately assess India's typhoid burden**.
- ▶ **About Widal test**
 - ⊖ It helps detect **typhoid or enteric fever** in human body.
 - ⊖ It looks for antibodies (**O and H antibodies** in sample blood) produced against **salmonella bacteria** (causes typhoid fever).
- ▶ **About Typhoid**
 - ⊖ Typhoid fever is caused by the **bacterium Salmonella Typhi**.
 - ◆ Infected persons carry bacteria in their **bloodstream and intestinal tract**.
 - ⊖ It is usually spread through **contaminated food or water**.
 - ⊖ Typhoid fever can be prevented by **typhoid conjugate vaccine**.

Personality in news



Gopal Krishna Gokhale (1866 – 1915)

- ▶ The birth anniversary of Gopal Krishna Gokhale was celebrated.
- ▶ **About Gopal Krishna Gokhale**
 - ⊖ He was born in Ratnagiri district of Maharashtra.
 - ⊖ He was a **moderate and liberal political thinker**.
- ▶ **Contributions**
 - ⊖ He was the **President of INC** in Banaras session (1905).
 - ⊖ In the 1905, he founded '**Servants of India Society**'.
 - ⊖ **Politics:** He laid the foundations of constitutionalism.
 - ⊖ **Economics:** He encouraged the process of capitalist development.
 - ⊖ **Social:** He enhanced the dignity of the individual irrespective of his race, religion, language, and class.
- ▶ **Values**
 - ⊖ Liberalism, patriotism, leadership, etc.



AHMEDABAD



BENGALURU



BHOPAL



CHANDIGARH



DELHI



GUWAHATI



HYDERABAD



JAIPUR



JODHPUR



LUCKNOW



PRAYAGRAJ



PUNE



RANCHI