

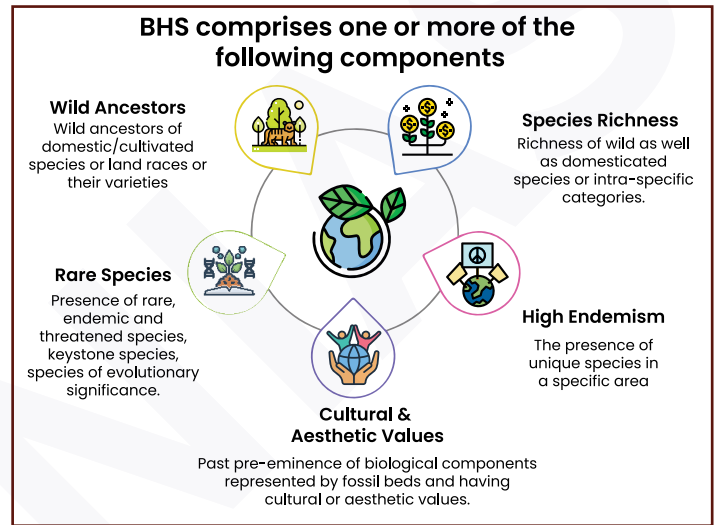
Ministry of Coal and Mines Cancels Auction of Nayakkarpatti Tungsten Mineral Block

This decision was made to conserve the **Arittapatti Biodiversity Heritage Site** located within the block's area.

- **Tamil Nadu's first BHS, Arittapatti** (Madurai district) is rich in ecological & historical value, featuring **megalithic structures, Tamil Brahmi inscriptions, 2,200-year-old rock-cut temples** etc.

About Biodiversity Heritage Site (BHS)

- **Definition:** BHS are well defined areas that are **unique, ecologically fragile ecosystems** comprising of any one or more of the components (refer Infographic).
- ⊕ **First BHS in India: Nallur Tamarind Grove, Bengaluru (2007).**
- ⊕ **Current Status: 47 BHS in India** (as of Dec 2024).
- **Legal Provision:** Under Section 37 of **Biological Diversity Act, 2002 (BDA)**, **State Government** in consultation with local bodies may notify areas of biodiversity importance as BHS.
- ⊕ **State Government** in consultation with Central Government may frame **rules for management & conservation of BHS.**
- **Management: Biodiversity Management Committee (BMCs)** or other appropriate institution as determined by relevant local body in absence of BMCs.
- ⊕ Under the **BDA, 2002**, every local body in State shall constitute a **BMC** within its area for promoting **conservation, sustainable use and documentation of biological diversity.**
- **Monitoring: State-level Monitoring Committee** Constituted by state biodiversity Board.
- Generally, **no restriction** is to be placed on the **community** on **prevailing practices** and the **utilization of resources** from the proposed BHS.



The United States President Signed an Executive Order to End Birthright Citizenship

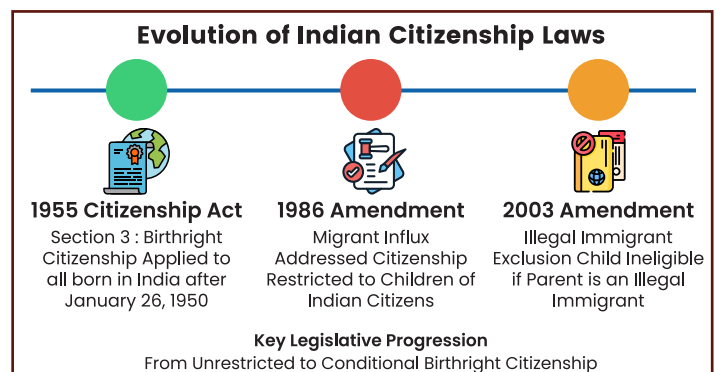
However, A federal judge has temporarily blocked this executive order that sought to curtail birthright citizenship in the United States regardless of parents' immigration status.

About Birthright Citizenship in the US

- **Definition:** Birthright citizenship is a provision under the **14th Amendment (1868)** of the **US constitution** that grants automatic citizenship to anyone born on US soil.
- **Historical Context:** Upheld by the US Supreme Court in **United States v. Wong Kim Ark (1898)**, even for children of non-citizen parents.

Implications for India with End of U.S. Birthright Citizenship

- **H-1B Visa Holders:** Children born to Indian professionals on H-1B visas, or those **awaiting Green Cards** (allows a person to live and work in US permanently), will no longer qualify for automatic citizenship.
- ⊕ **H-1B Visa:** A temporary visa that lets employers hire foreign professionals for jobs requiring a bachelor's degree.
- **Temporary Visa Holders:** Indian students (**one of the largest groups of international students**) and families on temporary visas will face difficulties securing citizenship for their US-born children.
- **Impact on Immigration:** The policy would discourage Indian professionals, students, etc, from migrating to the US, pushing them toward immigration-friendly countries like **Canada and Australia.**
- **Curb "birth tourism":** A practice of women travelling to the US specifically to give birth, so their children can claim citizenship.



New Study Reveals Iron Age in India Began in the 4th Millennium BCE

The study published in a report titled 'Antiquity of Iron: Recent Radiometric Dates from Tamil Nadu', challenges established assumptions about Iron Age in the world and India.

Key Findings

- **Iron technology in Tamil Nadu** dates as far back as **3345 BCE**.
- **Charcoal & potsherds from the Sivagalai site** ranged from 2953 BCE to 3345 BCE, making it the **earliest recorded evidence of iron technology globally**.
- **Sarcophagus burial** found at Kilnamandi dated to 1692 BCE is the **earliest-dated burial of its kind** in Tamil Nadu.
- Iron-smelting furnaces identified at **Mayiladumparai, Kilnamandi, Perungalur sites** etc. shows region's technological sophistication in producing durable iron tools and weapons.

Significance

- **Challenges Global Iron Age Timeline:** Iron Age, traditionally linked to **Hittite Empire** in Anatolia (Turkey) where iron technology is believed to have emerged around 1300 BCE.
- **Challenges established linearity of cultures:** iron succeeded copper because it required a different kind of skill & a more advanced level of metallurgical expertise.
- **Iron Age & Copper-Bronze Age Likely Contemporary in India:** Unlike the global progression where Iron Age succeeded Copper-Bronze Age.
 - ⊕ Previously, the **Iron Age in India was thought to begin between 1500 and 2000 BCE**, closely following the Indus Valley Civilization.
 - ⊕ **Challenges** prevailing Theories like **V. Gordon Childe & Mortimer Wheeler**, who proposed that **iron spread from a single Western center to the Indian subcontinent**.

Dating Techniques Used in Study

- **Radiometric Dating:** It is a scientific method used to **determine the age of materials**, like rocks, fossils, or artifacts, by **analyzing decay of radioactive isotopes** within them.
 - ⊕ **Accelerator Mass Spectrometry** (type of radiometric dating) is a technique for high precision measurement of radioisotope ratios.
- **Optically Stimulated Luminescence (OSL) Analyses:** It is a technique used to date the last time minerals, such as quartz or feldspar, were exposed to light/heat.

16th Finance Commission launched inaugural issue of NITI Aayog's report: Fiscal Health Index (FHI) 2025

States handle **two-thirds** of public spending and **one-third of revenue**, managing key development and infrastructure roles, making their **fiscal health crucial for national progress**.

Key findings of Fiscal Health Index (FHI) 2025

- **Top Performing States:** Odisha excels in fiscal health with the highest overall index score topping the Debt Index and Debt Sustainability rankings.
- **Aspirational States:** These states face significant fiscal challenges, such as low quality of expenditure, debt sustainability, and revenue mobilization issues.
- **Revenue Mobilization:** Goa, Telangana, and Odisha lead in revenue mobilization.
- **Capital Expenditure:** Achiever and Front Runner states allocate around 27% of their Developmental Expenditure to Capital Expenditure, in contrast, Performer and Aspirational States allocate only around 10%.
- **Debt Sustainability:** States like West Bengal and Punjab have growing debt burdens, raising concerns about debt sustainability.

About Fiscal Health Index (FHI) 2025

- **Purpose:** Evaluates state fiscal health to promote balanced regional development and economic stability.
- **Assessment:** Fiscal health of **18 major States**.
- **Based on five key sub-indices:** Quality of Expenditure, Revenue Mobilisation, Fiscal Prudence, Debt Index, and Debt Sustainability.
- **Significance of FHI:**
 - ⊕ **Fiscal Health Framework:** Aids in fiscal consolidation, transparency, and resource management.
 - ⊕ **National Vision Alignment:** Supports "Viksit Bharat @2047" with state-level fiscal discipline central to India's economic transformation.

State Categories by Financial Health Index (FHI)



Achiever (FHI Score > 50)
Top Performers in Financial Health
Odisha, Chhattisgarh. Goa, Jharkland, Gujarat



Front Runner (FHI Score 40-50)
Strong Financial Performance
Maharashtra, Uttar Pradesh. Telangana, Madhya Pradesh. Karnataka



Performer (FHI Score 25-40)
Moderate Financial Health
Tamil Nadu, Rajasthan, Bihar. Haryana



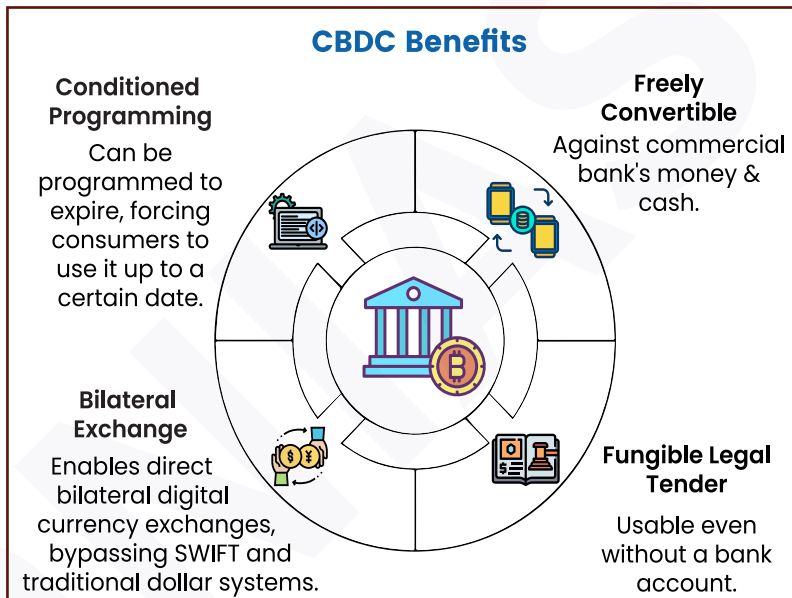
Aspirational (FHI Score ≤25)
Need Financial Improvement
Kerala, West Bengal, Andhra Pradesh, Punjab

The US President issued executive order banning the establishment of Central Bank Digital Currency (CBDC)

The Order prohibits issuance, circulation, & use of **US CBDC**, also known as '**Digital Dollar**', within the jurisdiction of USA.

About CBDC

- **Definition:** CBDC is the electronic version of the nation's sovereign currency and is issued by respective country's central bank.
 - ⊕ Unlike cryptocurrencies which is decentralised in nature.
- **Types of CBDC**
 - ⊕ **Wholesale CBDCs:** Used by **financial institutions & market participants** for **large-scale transactions**, such as interbank transfers, securities settlements etc.
 - ⊕ **Retail CBDCs:** Used by **retail consumers, public & business** for making daily transactions. These are of **2 types**:
 - ◆ **Token-based:** Accessed using **private & public keys**, allowing for **anonymous transactions**.
 - ◆ **Account-based:** Requires **digital identification for users** to access & use their accounts.
- **Features of CBDC**
 - ⊕ **Must be accepted as a medium of payment**, legal tender, and a safe store of value by all citizens, enterprises, and government agencies.
 - ⊕ **Convenience of use:** Expected to lower the cost of issuance of money and transactions.
 - ⊕ **Difference with existing money:** It is the **liability of the central bank (RBI)**, and not of a commercial bank.



Issues with CBDCs: Threatens financial system stability; compromises individual privacy & protection, cyber security challenges etc.

CBDC initiative in India - RBI's e-Rupee (₹)

- **Genesis:** Launched in 2022 by the Reserve Bank of India.
- **Type:** it is a **digital version of the Indian rupee** and is **exchangeable one-to-one** with the fiat currency.
- **₹** can be held and transacted through **₹ wallets** offered by **banks and non-banks** for **person-to-person** payments or **person-to-merchant** transactions.

Also in News

Reserve Bank – Integrated Ombudsman Scheme (RB-IOS), 2021

Recently, RBI released the annual report for the Ombudsman scheme for the period 2023-24.

- Annual report showed an increase of ~33% in complaints in FY24 as compared to FY23.

About RB-IOS

- Launched in **2021**, as part of **Alternate Grievance Redress (AGR) Framework of RBI**.
- **Objective:** One Nation One Ombudsman principle.
- **Integrates 3 previous ombudsman scheme of RBI:**
 - ⊕ Banking Ombudsman Scheme, 2006
 - ⊕ Ombudsman Scheme for Non-Banking Financial Companies, 2018
 - ⊕ Ombudsman Scheme for Digital Transactions, 2019
- **Provides a single window for resolution of complaints** against RBI regulated entities viz. **Commercial banks, RRBs, Cooperative banks, NBFCs**, Payment System Participants and Credit Information Companies.



Inland Waterways Authority of India

Recently, **Inland Waterways Authority of India (IWAI)**, set up its **6th new regional office in Varanasi**.

- Earlier, IWAI had **five regional offices** in Guwahati, Patna, Kochi, Bhubaneswar & Kolkata.

About IWAI

- **Nodal Ministry:** Ministry of Ports, Shipping and Waterways.
- **Origin:** **Statutory body** established under the **Inland Waterways Authority of India Act (IWAI), 1985**.
- **Objective:** **Development and regulation of inland waterways** for shipping and navigation.
- **Purpose:** **Undertakes projects for development & maintenance of IWT infrastructure on national waterways** through grants received from Ministry of Shipping.



Designing Innovative Solutions for Holistic Access to Justice (DISHA) scheme

Hamara Samvidhan – Hamara Swabhiman Campaign organised to commemorate 75th anniversary of Indian Constitution and India’s establishment as a Republic under the DISHA Scheme.

About DISHA scheme

- **Launch:** Launched in 2021 by Department of Justice, Ministry of Law and Justice for a period of 5 years (2021-2026).
- **Aim:** To secure “Justice” to the people of India as enunciated in the Preamble & under Articles 39A, 14 and 21 of the India Constitution.
- **Other:** It widens the outreach of Tele-Law, Pro Bono Legal Services (Nyaya Bandhu) & Legal Literacy and Legal Awareness programmes both qualitatively and quantitatively.



Kodaikanal Solar Observatory

International solar conference celebrates 125th anniversary of the Kodaikanal Solar Observatory.

About Kodaikanal Solar Observatory

- **Genesis:** Currently owned & operated by Indian Institute of Astrophysics, it was established in 1899.
- **Location:** Kodaikanal, Palani range of hills (Tamil Nadu).
 - ⊕ Kodaikanal was chosen for its proximity to equator & its dust-free high-altitude location.
- **Objective:** It was set up to obtain more data on how the sun heats up Earth’s atmosphere and to understand monsoon patterns.



International Year of Cooperatives-2025

Minister of Cooperation recently addressed the inaugural function of International Year of Cooperatives 2025.

About International Year of Cooperatives 2025

- The UN General Assembly declared 2025 as the International Year of Cooperatives (IYC2025) in 2024.
 - ⊕ UN’s first IYCs was celebrated in 2012
- **Theme:** Cooperatives Build a Better World."
- **Objective:** To raise public awareness of the invaluable contributions of cooperative enterprises to poverty reduction, employment generation etc.



Corpse Flower

A rare plant known as the corpse flower bloomed in Sydney, Australia for the first time in more than a decade.

About Corpse Flower (Amorphophallus titanum)

- It is known for infamous rotting smell when the plant is in bloom.
- It is found in the wild in Indonesia (known as bunga bangkai).
- It has the largest flowering structure of any plant in world, rising up to 3 metres from the ground.
- The plant typically does not bloom more than once every few years & it lasts only about a day.
- It is listed as Endangered by the IUCN.



SANJAY System

The Defence Minister recently launched SANJAY, an advanced Battlefield Surveillance System (BSS), to enhance the Indian Army’s surveillance and reconnaissance capabilities.

About SANJAY System

- It is jointly developed by the Indian Army & Bharat Electronics Limited (BEL), in line with the ‘Aatmanirbhar Bharat’ initiative.
- It creates a unified surveillance picture of the battlefield via the Army Data Network and Satellite Communication Network by processing the gathered information.
 - ⊕ The system is designed to seamlessly integrate data from both ground and aerial battlefield sensors.



Stargardt Disease

Recently, researchers from Switzerland have developed a gene editing technique to help cure Stargardt disease.

About Stargardt disease (Juvenile Macular Dystrophy)

- A rare inherited/ genetic eye disease that leads to vision loss in children & young adults.
 - ⊕ Caused by changes in gene - ABCA4. This gene influences how your body uses Vitamin A.
- Occurs when fatty material (lipofuscin) builds up on the macula - the small part of the retina needed for sharp, central vision.
 - ⊕ Usually occurs bilateral, involving both eyes.
- **Treatment:** There is no treatment available.

Place in News



Democratic Republic of the Congo (DRC) (Capital: Kinshasa)

Recently, increasing hostilities in eastern part of Democratic Republic of the Congo (DRC) by non-state armed group M23 have caused mass displacement in the region.

Political features

- 2nd largest country in the African continent (after Algeria) & largest in Sub-Saharan Africa (SSA).
- **Land boundaries:** Angola, Burundi, Central African Republic, Republic of the Congo, Rwanda, Sudan, Tanzania, Uganda, and Zambia.
- **Maritime boundary:** Atlantic Ocean.

Geographical features

- **Major river:** Congo river (second longest river, after Nile River).
- **Vegetation:** Tropical forests.
 - ⊕ Congo basin is home to world’s largest tropical peatlands.
- **Minerals:** Cobalt, gold, copper, coal, iron ore, lithium etc.

