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ACCREDITED SOCIAL HEALTH ACTIVIST (ASHA)



- ASHA is a **trained female community health activist**.
- The ASHA program is funded by the **National Rural Health**

Mission (NHRM) in an effort to promote public health awareness amongst local, rural populations, and increase the utilization and accountability of existing health services.

- Selected from the community itself and accountable to it, the ASHA worker is trained to work as an **interface between the community and the public health system**.

Functions:

- Act as a **care provider** at the community level
- **Facilitating access to healthcare, medicine,** and sanitation services
- **Raising the level of awareness** of health issues among the marginalised sections within the community
- **Advocate for female health** and hygiene standards
- **Advocate for a health-conscious behaviour** and approach to livelihood
- The ASHA scheme is presently in place **in all States/UTs (except Goa)**.
- The **States are mandated to employ at least one ASHA worker per every 1000 people**.
- They **receive basic public health training** and are **equipped with a standard drug kit**, which allows them to deliver first-contact healthcare.
- They are chosen through a **rigorous process of selection involving various community groups, self-help groups, Anganwadi Institutions, Block Nodal officer, District Nodal officer, the village Health Committee, and the Gram Sabha**.
- **Selection Criteria:**
 - In **rural areas**, ASHA must primarily be a **woman resident of the village**, married/widowed/divorced, preferably in the age group of **25 to 45 years** and literate, **preferably qualified up to 10th standard** (formal education up to Class 8).

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- In **urban areas**, ASHA must be a **woman resident** of the “slum/vulnerable clusters” and **belong to that particular vulnerable group** which have been identified by the City/District Health Society for selection of ASHA and must have **good communication and leadership skills**.
- The **States** have been **given the flexibility to relax the population norms** as well as the **educational qualifications** on a case-to-case basis, depending on the local conditions as far as her recruitment is concerned.
- **Compensation for ASHA:**
 - An ASHA worker is primarily an “**honorary volunteer**” but is **compensated** for her time **in specific situations** (such as training attendance, monthly reviews, and other meetings).
 - On average, an ASHA worker's **monthly income varies from Rs 2,000 per month to Rs 7,000 per month, depending on the state**.
 - In addition, she is **eligible for incentives** offered under various national health programmes.
 - She would also have **income from the social marketing** of certain **healthcare products** like condoms, contraceptive pills, sanitary napkins, etc.
 - Her work should be so designed that it is **done without impinging on her main livelihood** and adequate monetary compensation for the time she spends on these tasks- through performance based payments should be provided.

CARBON BORDER ADJUSTMENT MECHANISM (CBAM)



- It is a **European Union (EU) tariff on carbon-intensive products**.
- It is a new EU instrument **for preventing carbon leakage**, that is, the shifting of the production of goods to non-EU countries where there is a lower or no carbon cost associated with their production.

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Purpose: To put a fair price on the carbon emitted during the production of carbon-intensive goods that are entering the EU and to encourage cleaner industrial production in non-EU countries

- By confirming that a price has been paid for the embedded carbon emissions generated in the production of certain goods imported into the EU, the CBAM will **ensure the carbon price of imports is equivalent to the carbon price of domestic production**, and that the EU's climate objectives are not undermined.

Imports mean any imports to the EU from outside the EU, **including e.g., imports of goods ordered online and imports of gifts.**

- The CBAM is designed to be **compatible with WTO rules.**

Carbon Certificates:

- If implemented as planned, **EU importers will have to buy carbon certificates corresponding to the carbon price** that would have been paid in the EU if the goods had been produced locally.
 - The price of the certificates would be **calculated according to the auction prices in the EU carbon credit market.**
 - The number of certificates required would be defined yearly by the quantity of goods and the embedded emissions in those goods imported into the EU.
 - **EU importers will declare the emissions embedded** in their imports and **surrender the corresponding number of certificates** each year.
 - **If importers can prove that a carbon price has already been paid** during the production of the imported goods, the **corresponding amount can be deducted.**
 - Companies in countries with a domestic carbon pricing regime equivalent to the EU's will be able to export to the EU without buying CBAM certificates.
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WHAT IS PETRIFICATION?



Geologists and forest officials recently unearthed a rare and well-preserved petrified fossil at Rajmahal Hills near Barmasia village in Pakur district, Jharkhand.

- Petrification (petros means stone) occurs when the **organic matter** is completely **replaced by minerals** and the **fossil is turned to stone**.
- This generally occurs **by filling the pores of the tissue** and inter- and intracellular spaces with **minerals**, then **dissolving the organic matter** and replacing it with **minerals**.
- This method **reproduces the original tissue** in every This **kind of fossilization** occurs in both hard and soft tissues.
- This typically occurs when the material is buried under sediment and exposed to mineral-rich water over long periods.
- This process is involved in many forms of fossilization and leaves behind many stunning and **beautifully preserved fossils**.
- An **example** of this kind of fossilization is **petrified wood**.

SVALBARD GLOBAL SEED VAULT



Recently, the Svalbard Global Seed Vault received more than 14,000 new seed samples.

- It is the largest backup facility for the **world's crop diversity**.
- Svalbard is the **Norwegian archipelago** half way between the Northern pole and Mainland Norway.

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- The Seed Vault's objective is to **safeguard as much of the world's unique crop genetic** material as possible while also avoiding unnecessary duplication.
- It offers **free-of-charge, long-term storage** of **seed** duplicates from international, national and regional gene banks and institutions.
- The ownership of the seeds **remains with the depositing gene bank**. In the Seed Vault they are stored under so called black box conditions, meaning that only the **institution that deposited the seeds has access** and is allowed to withdraw them.
- It was set deep inside a mountain to withstand disasters from nuclear war to global warming, **in 2008** as a backup for the world's gene banks that store the genetic code for thousands of plant species.
- It has the capacity to store 4.5 million varieties of crops.
- The facility serves a humanitarian purpose and is part of the international system for conserving plant genetic diversity guided by the **UN organisation for Food and Agriculture (FAO)**.

KUNDI WATER HARVEST SYSTEM



- The kundi (also known as a kund) is a **traditional rainwater harvesting system** that is predominantly found in desert regions in **Rajasthan, India**.
- This system is designed to capture and store rainwater, which is crucial in arid and semi-arid areas where water is scarce and rainfall is unpredictable.
- **Structure:**
 - It consists of a **deep, circular or rectangular pit** that is either dug into the ground or constructed above ground.
 - It is usually **lined with stones, bricks, or other materials** to reinforce the structure and prevent seepage.

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- The pit is often **covered with a lid or stone slab** to prevent contamination from debris and to reduce evaporation.
- Rainwater is collected through channels or from rooftops, and then funneled into the kundi, where it is stored for use during the dry season.
- **Significance:**
 - It serves as an efficient method of water conservation, particularly in places where surface water is limited, and access to groundwater is difficult.
 - It helps to ensure that water is available for drinking, irrigation, and other domestic purposes when rainfall is scarce.

SPHEREX TELESCOPE



- The **Spectro-Photometer for the History of the Universe, Epoch of Reionization and Ices Explorer (SPHEREx)** telescope is a megaphone-shaped telescope.
- **Tenure:** 2 year
- **Aims of SPHEREx:**
 - It **will map the universe** while detecting two kinds of cosmic light, optical and infrared.
 - It will measure something called **cosmic inflation**.
 - **Cosmic inflation** refers to a period which took place around 14 billion years ago, during which the universe expanded faster than the speed of light for a fraction of a second.
 - It will help better understand things about the **formation of the universe**, the **growth of all galaxies across cosmic history**, and the location of **water and life-forming molecules in the Milky Way galaxy**.
 - It will use spectroscopic images to measure the **3D positions of about 450 million galaxies** across cosmic history.

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- It will complement the work being done by other infrared telescopes in space, such as the **James Webb Space Telescope** and **Hubble Space Telescope**.

Significance of this Initiative:

- Mapping the whole sky enables astronomers to identify **promising regions for life and gather large-scale data** to separate meaningful patterns from anomalies, making this mission a transformative step in the search for life beyond Earth.
- One can determine the necessary conditions to form biogenic molecules in space. In turn, this can tell about a crucial step in how life came to be.

LANGUAGE POLICY IN INDIA - THE THREE-LANGUAGE FORMULA AND ITS CHALLENGES

- **Historical perspective:**
 - **Post-Independence**, language policies have remained controversial.
 - Language has been perceived as **a medium of instruction** rather than a cognitive tool.
 - **Colonial influence** shaped the education system's focus on **instruction rather than exploration**.
- **Constituent assembly and language policy:**
 - **The issue of a national language** was debated extensively during Constitution drafting.
 - **Hindi's adoption** as an official language was **fraught with complexities** due to its multiple varieties.
 - **English retained prominence**, despite expectations of its gradual decline.

Evolution of the Three-Language Formula:

- **The three-language formula:**
 - It is a language learning policy introduced in the **1968 National Policy on Education**.

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- It mandated that students across India **learn three languages**: their regional language (mother tongue), Hindi, and English.
- **Hindi-speaking states** must study a modern Indian language (preferably from the south) instead of Hindi as their third language.
- **NEP 2020 and the three-language formula:**
 - **The National Education Policy (NEP) 2020** has retained the three-language formula albeit with a key difference that it doesn't impose any language on any State.
 - It specifies that the languages to be learnt will be the **choice of States, regions and the students**, so long as at least two of the three languages are native to India.
- **Implementation challenges across India:**
 - **In the Hindi-speaking states**, the third language rarely includes contemporary languages from other Indian states.
 - **Private schools in northern states** do not prioritize regional languages like Tamil or Punjabi.
 - **Political concerns over language education** have remained divisive and often counterproductive.
- **Role played by the CAGE:**
 - The Central Advisory Board of Education (CAGE), a remarkable forum that had served India since the 1920s, has played a crucial role in shaping language policies.
 - CAGE helped **navigate federal governance challenges** in education but has been **inactive in recent years**.

Conclusion:

The **debate** over language education in India remains **unresolved**. Tamil Nadu's steadfast opposition to the three-language formula reflects **deeper concerns** over **linguistic identity and federal policies**.

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DELIMITATION AND THE SOUTH

- Delimitation is a constitutional mandate carried out after each Census to readjust the number of seats in Parliament and state Assemblies and redefine constituency boundaries.
 - **Article 82 of the Constitution** mandates that after each Census, the allocation of Lok Sabha seats must be adjusted based on population changes.
 - However, **Article 81** limits the total number of Lok Sabha members to 550, with 530 from states and 20 from Union Territories.
 - It also requires that the ratio of seats to the population in each state be as uniform as possible, ensuring that constituencies across the country have roughly equal populations.
- The goal is to ensure equal representation by maintaining similar population sizes across constituencies.
- **History of Delimitation in India**
 - **Pre-1976:** After the Censuses of 1951, 1961, and 1971, seats in Lok Sabha, Rajya Sabha, and state Assemblies were redistributed.
 - **42nd Amendment (1976):** During the Emergency, Parliament froze the total number of seats until the 2001 Census to prevent states with higher population growth from losing representation while implementing family planning measures.
 - **2001 Delimitation:** While constituency boundaries were redrawn, the number of seats remained unchanged due to opposition from southern states.
- **Impact of Delimitation on Elections**
 - Regional parties in the South fear that delimitation based on population will benefit parties with a strong base in North India.

Concerns of Southern States Over Delimitation

- Southern states fear that delimitation based on the latest population data will reduce their representation in Parliament, weakening their political influence.