

POLITY

PRE-CONTEXT

DELIMITATION COMMISSION

THE HINDU, PG.NO: 1.

News: "South will not lose LS seats on delimitation, says Union Home Minister."

What is Delimitation?

- Delimitation refers to **redrawing electoral boundaries** to reflect population changes and ensure balanced representation.
- **Art.82 and 170:** empower Parliament to readjust the allocation of seats in the Lok Sabha and the Legislative Assemblies of States, respectively, after every census.

About Delimitation Commission:

- Delimitation Commission is a **statutory body**, established under Delimitation Commission Act.
- Appointed by **President of India**.
- **Composition:**
 - **Chairman:** A retired or working Supreme Court Judge
 - **Members:** Election Commissioner, Concerned State Election Commissioners.
- **Powers:**
 - Orders of delimitation commission are laid before the **Lok Sabha and Legislative Assemblies, but they can't modify them.**
 - It's **orders cannot be called into question before any court.**

Delimitation commissions after Independence:

- **1952, 1962, 1972, 2002, 2020** (for few States).
 - **Delimitation commissions are backed by Statute** Eg. Delimitation Commission Act, 1952, Delimitation Act, 2002.
- **42nd Constitutional Amendment Act, 1976:** Imposed a **freeze on the delimitation process until** the results of the **2001 Census**.
 - The freezing of delimitation was done to prevent states that were effective in population control from being disincentivized.
- **84th Constitutional Amendment Act, 2002:** the total number of existing seats in the Lok Sabha and State Legislative Assemblies is to **remain unaltered until the first census after 2026**.
- **Delimitation Commission (2020):**
 - Delimitation in the **UT of Jammu and Kashmir and the northeastern States of Assam, Arunachal Pradesh, Manipur, and Nagaland.**
 - This Delimitation Commission was **set up under Delimitation Act, 2002.**

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ENVIRONMENT

PRE-CONTEXT

EU'S CARBON BORDER ADJUSTMENT

MECHANISM

THE HINDU, PG.NO: 13.

News: "EU says ready to address India's specific concerns on carbon tax levy on imports"

About EU-CBAM:

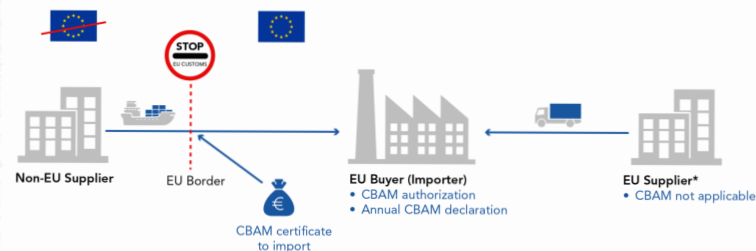
- The CBAM is like a **carbon tax for imported goods**, making sure they cost the same as EU-made products.
 - **EU industries invest in technology to maintain high environmental standards**, leading to higher production costs compared to countries with less stringent emission norms.
 - **This reduces the demand for EU-made products** in markets due to their high cost.
 - **CBAM ensures level playing field by imposing tax** on imported goods, making sure they cost the same as EU-made products.
- CBAM is **not applicable to goods originating from the EU**.
- **Exporters must disclose the quantity and emissions of their goods** and purchase corresponding certificates.

Significant risks to India's international trade.

- The **EU accounts for 20% of India's total merchandise exports**, with 25% affected by CBAM.
- **India, at COP29 Baku, opined CBAM is 'discriminatory'.**
- **BASIC countries** (Brazil, South Africa, India, and China), opined **CBAM overlooks the "differentiated responsibility"** under climate architecture
 - i.e., Common But Differentiated Responsibilities.

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EU Carbon Border Adjustment Mechanism simplified illustration



* Including goods originating from Iceland, Liechtenstein, Norway, and Switzerland
Sources: The Conference Board, 2022



ENVIRONMENT

PRE-CONTEXT

SUSTAINABLE ENERGY

THE HINDU, PG.NO: 22.

News: "Coal-fired power plants in India cut rice, wheat yield by up to 10%."

Context: Generating electricity by burning coal leads to considerable air pollution, which affects human and animal health. Recent studies, have shown that in India nitrogen dioxide and ozone emissions from coal-fired power plants diminish yields of staple crops like wheat and rice.

Wind Energy:

- Use of wind power by placing **windmills** to generate electricity.
- **Nine windy States of India** generate as much as 50Gigawatts (GW) of electricity.
- India is the **fourth largest wind power** maker in the world.

Solar Energy:

- It uses energy from sunlight.
- This involves **setting up solar panels on houses and buildings or on large scale solar farms.**
- These panels absorb sunlight and convert light into electricity.
- **Central and State govts offer subsidies** to those who install solar panels.
- India is the **third-largest producer** of solar power in the world.

Block a river and generate power:

- This involves stopping a part of a river to make electricity, besides offering water for agriculture in areas where the river flows.
- When a **river's water is blocked by a dam and then released, the resultant energy is used to generate electric power.**
- The top five dams across India together generate as much as **50 GWs (Gigawatts) of hydroelectric energy.**

Generation of Power where a river flows into the sea:

- Here concept of **osmotic pressure difference** plays role in power generation.
- **India has a vast coastline of 7,500 km**, where rivers from the west, south and east drain into the sea, and this technology can effectively generate electricity.
- Here is an **opportunity** for Indian scientists and technologists to rise to the challenge.

Nuclear Energy:

- Using **nuclear reactors for peaceful purposes** and generate electricity.
- Nuclear power plants use **nuclear fission** to heat water, create steam, and spin turbines to generate electricity.
- The **set of eight nuclear power plants in India** together generate 3.5 GW of electricity.

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GS III

SYLLABUS: ENVIRONMENTAL POLLUTION

ETHANOL BLENDING PROGRAMME

THE HINDU, PG.NO: 8

News: "How will the govt. produce the required fuel ethanol?"

About Ethanol Blending Programme(EBP):

- 15% ethanol blending achieved & targets 20% ethanol blending of petrol 2025-26".
- **Raw materials:** *sugarcane molasses, rice, broken rice, wheat, maize and other grains with starch content.*
- **Uttar Pradesh** is the largest contributed to ethanol blending program.

Benefits:

- When petrol was blended with 20% of the biofuel, **carbon monoxide reduced** by 30% in four wheelers and 50% in two wheelers.
- Reduction in GHG emissions.
- Estimated EPB will **cut approx 4 billion USD annually.**
- **Bolsters the rural economy** by promoting **crop diversification.**
- Byproducts of ethanol, can be used for poultry.

Issues:

- **Food vs Fuel Equation:** Eg. Maize imports has increased in 1st quarter of 2024 financial year.
 - For production of **one-litre of Ethanol requires 2kgs of rice, 2.5kg of maize or 50kg of sugarcane—NITI Aayog.**
- **Unsustainable water usage:**
 - Production of **one litre of grain based ethanol requires 8-12 litres of water.**
 - Sugarcane is highly water intensive, this would redirect irrigation water from essential food grain crops.
- **Negative impact on livestock feed:** Eg. Poultry majorly depends on maize and rapid diversion can lead inflate prices.
- **River pollution:** Effluents from plants are discharged into canals, rivers which are source for drinking water and agriculture needs—**case of Gandepalli Andhra Pradesh.**
- **All ethanol production plants and distillers falls under red category** as per central govt norms.

Steps taken to increase indigenous production of Ethanol:

- Re-introduction of **administered price mechanism.**
- **Amendment to Industries Act 1951:** brings **exclusive control of Denatured Ethanol under central govt.** for smooth movement of ethanol across the country.
- **Reduction of GST** on Ethanol meant for EBP.
- **Differential Ethanol price** based on raw materials utilised for ethanol production.
- **Interest subvention scheme** for enhancement and argumentation of ethanol production.
- Publication of **long term policy by** on ethanol Procurement.

Other:

- **E85:** Blend of 85% of ethanol and 15% of other hydrocarbons.
- **Extra Neutral Alcohol(ENA):** used for making liquor for Human consumption.

Crop Production and States (2024):

- **Major Maize producing States:** Karnataka, Madhya Pradesh, Maharashtra, Andhra Pradesh, Rajasthan.
- **Major Sugarcane producing States:** UP, Maharashtra, and Karnataka.
- **Major Rice producing States:** West Bengal, UP, Punjab, Andhra Pradesh.
- **Major Wheat producing States:** UP, Madhya Pradesh, Punjab, Haryana.

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MAPPING

PRE-CONTEXT

DEMOCRATIC REPUBLIC OF CONGO

THE HINDU, PG.NO: 14.

News: "Indian peacekeepers serve with commitment: UN."

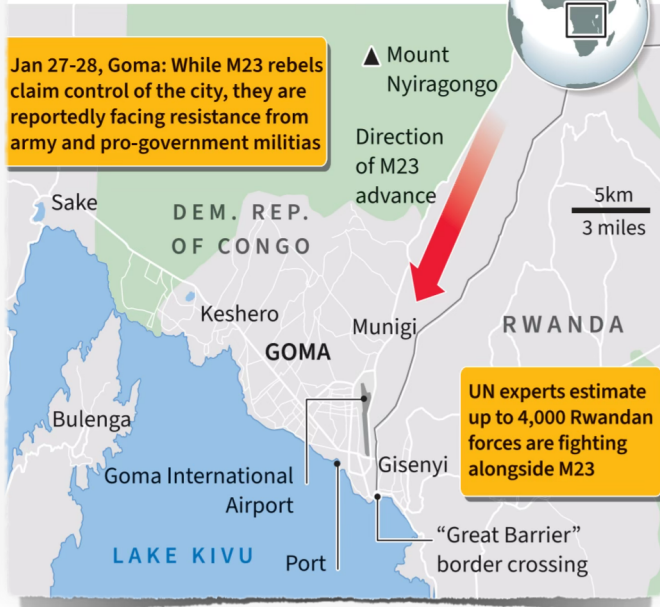
Situation in Democratic Republic of Congo (DRC):

- Crisis in the (DRC) is back in the spotlight after the **M23 militia**, backed by eastern neighbour **Rwanda**, **captured the mineral rich city of Goma**, which lies on the border of DRC.
- UN estimates suggest that the fighting, which began in January, has taken the lives of more than 2,900 people, displaced close to 7,00,000. .
- **Root cause of the crisis** is generally attributed to the 1994 **Rwandan genocide**, the region has been beset with conflict between the **Hutus and Tutsis** since colonial times.
- Hutus and Tutsis are two distinct ethnic groups primarily found in Rwanda.

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THE M23 MILITIA

- One of about 100 armed factions vying for a foothold in mineral-rich eastern DRC
- Rwandan-backed group which consists primarily of Tutsis who failed to integrate into the Congolese army
- Led major insurgency against the DRC government in 2012, took up arms again in 2022. The group is estimated to have 6,500 fighters



SCHEMES

PRE-CONTEXT

PM-MATRU VANDANA YOJANA

THE HINDU, PG.NO: 6.

News: "A leap backward for maternity entitlements."

Context: Pregnant women, continue to be deprived of their legal right to maternity benefits. Worse whatever little used to be paid to them seems to be shrinking.

Central government spending on the PMMVY was at an all-time low of ₹870 crore in 2023-24 –barely one third of the corresponding figure five years earlier, that too in money terms. To cover 90% of all births at just ₹6,000 a birth, the PMMVY would require a total budget of at least ₹12,000 crore.

PM-Matru Vandana Yojana (2017):

- **Centrally Sponsored Scheme.**
- **Nodal Ministry:** Women & Child Development.
- Scheme is **component of NFSA 2013**, which provides provides **maternity benefits to women** belonging to **Socially and Economically disadvantaged sections.**
- Maternity benefit is to provided to woman for her **first two living children**, provided **if second child is a girl.**
- For the first child Maternity benefit of **Rs. 5000** and **Rs. 6000 second child, if that is girl** via Direct Benefit Transfer.
- **Exclusion: Women employed in Central Govt., State Govt., PSUs.**

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Thank you!