

12 Nov 2024

ENVIRONMENT PRE-CONTEXT

CARBON MARKETS

THE HINDU, PG.NO: 8.

News: "Giving shape to India's carbon credit mechanism".

About Carbon Markets:

- · Carbon markets promote climate action by enabling the trading of carbon credits, which are earned through reducing or removing GHGs from the atmosphere.
- Credits are achieved by actions like shifting from fossil fuels to renewable energy sources and enhancing or conserving carbon-rich ecosystems such as forests.

Emission control mechanisms:

- · 2 methods:
 - · Perform, Achieve, Trade (PAT) method, setting targets for efficient use of energy to reduce emissions. · Carbon Market System.
- · India currently follows PAT method.
- Now India is making its transition from PAT to its own carbon market system similar to European Union Emission Trading system (ETS).

PAT method:

- · India launched this in 2012 as one of its eight missions comprising the National Action Plan on Climate Change.
- · Bureau of Energy Efficiency is the regulator to reduce specific energy consumption in energy-intensive industries.
- It uses market-based mechanism where excess energy savings can be certified and traded.

Emission Trading (Cap and Trade):

- · Market based approach to controlling emissions by setting emission caps for polluters.
- Focus solely on emission ceilings, no energy efficiency standards are considered.
- · Provides economic incentives for reduction of emissions to polluters.
- · Energy Conservation (Amendment) Act of 2022 provided a statutory mandate for such a Carbon Credit Trading Scheme (CCTS).
 - Through this, India aims to align its climate commitments under the Paris Agreement with broader economic goals.

Issues associated with Carbon Markets:

- · Inadequate accountability in credit generation, leading to instances of greenwashing.
- · Authenticity of generated carbon credits concern Eg. Double counting of carbon credits.
- · Absence of independent third-party verifiers to assess the quality of carbon reduction projects.
- · High costs of establishing monitoring, reporting, and verification systems.

Clean Development Mechanism:

- · One of the flexible mechanisms Kyoto Protocol.
- · CDM allows industrialised countries to carry out climatefriendly projects in developing countries.
- · Certified Emission Reduction (CER) units are awarded in return to industrialised nations.
- These CER units can be traded or used to meet their own emission reduction goals.

- · By 2011, India had become the world's secondlargest supplier of these CER units, following China.
- India Nationally Determined Contributions: related to enerav
 - Reduce emissions intensity by 45% by 2030 from 2005 level.
 - Generation of 50% of total electricity from non-fossil fuel sources by 2030.
- Bureau of Energy Efficiency (BEE)
- Statutory body under Energy Conservation Act 2001.
- Works under Ministry of Power.
- · Primary objective of reducing energy intensity of the Indian economy.
- Assigns Energy codes for Commercial buildings.
- Develops *minimum energy performance standards* for equipment and appliances under Standards and Labelling.

12 Nov 2024

GOVERNANCE

PRE-CONTEXT CENSUS

THE HINDU, PG.NO: 8.

News:"Counting right."

- A census is a periodic official count of a population, which gathers details like age, gender, and occupation.
- It helps govt. in planning and resource distribution.

Census:

- First Census in India was completed in 1881, initiated by Viceroy Lord Mayo.
- · First census after independence was in 1951, latest being 2011.
- In India census is conducted by Office of Registrar General and Census Commissioner of India, under Ministry of Home Affairs.
- It is an Union list item of 7th schedule and conducted under provisions of Census Act 1948.

Caste Census:

- · Last "Caste census" was in 1931.
- · Caste Census is not backed by any specific statute (law) but Census is conducted under Census Act 1948.
- India has counted and published caste data from 1951 to 2011 of the Scheduled Castes and Scheduled Tribes only.
- Socio-Economic and Caste Census was conducted in 2011 but never released.

12 Nov 2024



AGRICULTURE

PRE-CONTEXT

FERTILISERS

THE HINDU, PG.NO: 14.

News: "For farmers, daily pursuit of scarce DAP in sowing season"

Current scenario:

- India is the second-largest consumer of fertilisers globally MoCF annual reports 2023.
- Urea: 15-20% of its total is imported.
- Diammonium Phosphate (DAP) and Muriate of Potash (MOP): 60-70% of phosphorus and 80-90% of potash requirements are met through imports.
- India's fertiliser imports between 2018-21 were mostly from countries such as China, Russia, Saudi Arabia, UAE, Oman, Iran, and Egypt.

Challenges for indigenous production of fertilisers:

- Limited Reserves: India possesses about 3% of the world's phosphate rock reserves, primarily located in Rajasthan, Andhra Pradesh, and Madhya Pradesh.
- Urea production in India is heavily reliant on LNG: (Liquefied Natural Gas) where its prices have been volatile, making domestic urea production costlier compared to imports.
- Energy Shortages: Frequent power outages and energy shortages disrupt fertiliser manufacturing processes.
- Emission Standards & stricter environmental regulations: increase compliance costs and necessitate investments in cleaner technologies.

Types:

Chemical fertilisers:

- These are *synthetically produced*, containing specific nutrients like nitrogen, phosphorus, and potassium.
- They offer quick results but can lead to soil degradation if overused.

Organic fertilisers:

- *Derived from natural resources* like plants, animals, microorganisms etc.
- Eg. Compost, Manure and Biochar.

Bio fertilisers:

• These *contain beneficial microorganisms* that enhance nutrient uptake and soil fertility for example nitrogen, fixing bacteria, phosphate, solubilising bacteria, mycorrhizal fungi etc.

Nutrient Based Subsidy 2010

- · Central Sector Scheme.
- · Implemented by Ministry of Chemicals and Fertilisers.
- Subsidy under this scheme covered Phosphate, Potash and Sulphur.
- · It doesn't include Urea based fertilisers.
- Ideal Nitrogen, Phosphorus, Potassium ratio for Indian soils should be 4:2:1 but in Punjab 61:19:1 it is overused.

Nitrogen:

- Urea is a *Nitrogen rich compound.*
- Urea is primarily produced from *natural gas* in a *two-step process* involving *ammonia* production and subsequent reaction with *carbon dioxide*. This process is known as *Haber-Bosch process*.
- Therefore, for Urea production India has to import natural gas.

- Ministry of Chemicals and Fertiliser's statutorily fix the price of Urea under Essential Commodities Act, 1955.
- · Urea subsidy is a Central Sector Scheme.

Phosphorus:

- Produced from *phosphate rock*. It is sedimentary in nature.
- Second, most commonly used fertiliser in India after urea.
- ~85 percent demand is met via import as Diammonium Phosphate (DAP)
- DAP is considered one of the world's most commonly used phosphate fertilisers.
- **Budget 2024:** promotion of Nano DAP across all parts of India.

Potash:

- It is *not freely available in elemental form*.Produced from potassium containing minerals.
- India's total potash needs are imported from Russia, Ukraine in the form of Muriate of Potash (MOP).
- Recent studies highlights extract of *potash from* sugarcane molasses.

12 Nov 2024

POLITY PRE-CONTEXT

MINORITY EDUCATIONAL INSTITUTIONS

THE HINDU, PG.NO: 10.

News: "Can AMU finally claim a 'minority' status?"

What is a 'minority institution'?

- Article 30(1): guarantees religious and linguistic minorities to establish and manage educational institutions of their choice.
- Article 30(2): State must ensure "equality of treatment" in granting aid to all educational institutions, regardless of their minority status.
- Article 15(5): Minority institutions are exempted from providing reservations for SCs and STs, and may *reserve up to 50% of seats for students* from their own community.
- T.M.A. Pai Foundation (2002) case: the Supreme Court clarified that a '*minority' status should be determined based* on the demographic composition of the concerned State, rather than the national population.

Aligarh Muslim University:

- In 1875, Muslim reformer and educationist Sir Syed Ahmed Khan established the Muhammadan Anglo-Oriental (MAO) College in Aligarh to offer modern British education rooted in Islamic values to Muslims.
- In 1920, the Aligarh Muslim University Act (AMU Act) passed:
 - Under the Act, only Muslims were permitted to be members of the university's governing body.
 - Students from other religious communities were also admitted.
- 1965 Amendment to AMU Act: allowed President of India to nominate members to governing body (no more limited to Muslim community).



- In 2005, the university introduced a policy reserving 50% of seats for Muslim students.
 - Allahabad High Court struck down the policy on the ground that the university did not qualify as a minority institution, since it was established through Central legislation i.e AMU Act 1920.

2024 Supreme Court Verdict:

- Educational institutions established before the Constitution's adoption are *entitled to the protections granted in Article* **30(1)**.
- Statutory enactments recognizing institutions do not compromise their minority character.
- An institution retains its minority character even if its administration is no longer community-based.
- *Recognising an institution as one of national importance* does not inherently diminish its minority character.

12 Nov 2024

SECURITY

PRE-CONTEXT

LINE OF ACTUAL CONTROL

THE HINDU, PG.NO: 8.

News: "The LAC agreement, the détentes and the questions"

About LAC:

- The concept of the LAC emerged after the 1962 Sino-Indian War, it separates Indian-controlled territory from Chinesecontrolled territory in Himalayan region.
- Unlike the Line of Control (LoC) with Pakistan, the LAC with China is not a legally recognized international boundary.
- LAC passes through Ladakh, Kashmir, Uttarakhand, Himachal Pradesh, Sikkim, Arunachal Pradesh.
- LAC is divided into three sectors:
- Western Sector (Ladakh Region): The most contentious area, including Aksai Chin.
- Middle Sector (Himachal Pradesh and Uttarakhand): least disputed sector.
- Eastern Sector (Arunachal Pradesh): China claims this area as part of South Tibet (McMahon Line).
- · Grabbing of land inch-by-inch is known as 'Salami Slicing'.

Recent Incidents:

- **Doklam Standoff (2017):** A 73-day military standoff near the India-Bhutan-China tri-junction.
- Galwan Valley Clash (2020): First deadly confrontation in over four decades, resulting in casualties on both sides.

• Current Situation: China has agreed to restore troops to pre-2020 levels.

Geographical features along LAC:

Mountain Ranges & Glaciers:

- Karakoram Range, Saltoro Ridge, Ladakh Range, Greater Himalayas.
- · Eastern Himalayas.

- Rivers:
 - Shyok River, Indus (passes through Ladakh), Pangong Tso (lake in Ladakh).
 - · Sutlej (Western sector).
 - Brahmaputra (Eastern sector).
- Strategic Points: Glaciers, Valleys and Plains:
 - · Siachen Glacier (North of Depsang Plains).
 - Daulat Beg Oldie (Air strip of Indian Army).
 - Depsang Plains (Eastern Ladakh).
 - Karakoram Pass.
 - · Galwan Valley (Eastern Ladakh).
- · Chang Chenmo Valley (eastern Ladakh).
- Nubra Valley (located north to Leh).
- Finger-4 (on banks of Pangong Tso).
- · Demchok (Village).
- · Spiti Valley (in Himachal Pradesh).
- · Doklam Plateau (Sikkim-Bhutan Border).
- Tawang Valley (Arunachal Pradesh).
- Yangtse (Arunachal Pradesh).

Infrastructure:

- National Highway 1: Strategic movement towards western LAC.
- · Darbuk-Skyok-DBO road.
- · Atal Tunnel: enhances connectivity in Ladakh near LAC.

Wildlife sanctuaries and National Parks:

- · Hemis National Park (Ladakh).
- · Khardung La Wildlife Sanctuary (Ladakh).
- Eaglenest Wildlife Sanctuary (Arunachal Pradesh).
- · Changlang Tiger Reserve (Arunachal Pradesh).

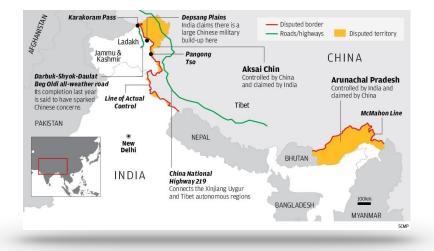
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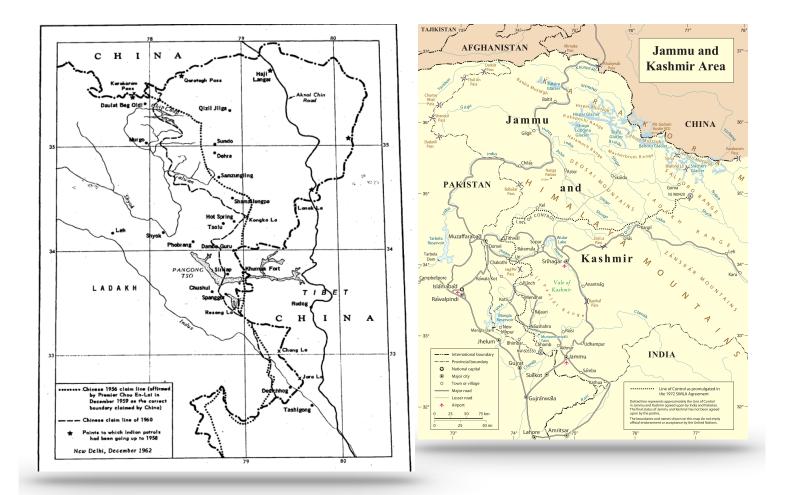
• Changpa or Rebos a semi-nomadic community of Changthang region.

12 Nov 2024









Thank you!