

GS I & II

SYLLABUS: ISSUES AND CHALLENGES PERTAINING TO THE FEDERAL STRUCTURE; POPULATION ISSUES.

DELIMITATION COMMISSION

THE HINDU, PG.NO: 8.

News: "Tackling delimitation by reversing population control."

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**.

Old age dependency ratio:

- How many older people are there for every 100 people of working age, between 18 to 59 years.
 - "**When this ratio goes above 15%**, that is the **onset of an ageing crisis**."
 - Currently, Kerala (26%), TN (20%), Himachal Pradesh (19%) Andhra Pradesh (18%).
 - The **above States cannot reap the benefits of demographic dividend** and health expenses are on rise.
 - Southern States, with just one-fifth of India's population, spent 32% of the country's total **out-of-pocket expenditure**. While eight Hindi-belt States with half the country's population, spent just 24%.

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What are pro-natalist policies:

- Under such policies, **governments try to encourage young couples to have kids by providing incentives** like:
 - Increase maternity leave or paternity leave.
 - Increase child support or reduce taxation.
 - Provide cash incentives for people to have children.
- Since 2015, **countries like Hungary, Poland, Greece, Finland, and Sweden**, where aging is a major issue, have adopted pro-natalist policies.
- **Success of Pro-natalist polices is limited due to:**
 - Rise of cost of living on welcoming child.
 - Need for adequate housing.
 - **What is the cost of raising a child:** like kindergarten and then school?
 - **Big opportunity cost for women:** who are largely responsible for the unpaid care of babies had to drop out of work, either permanently or for a short period.

In summary, "Educated women know they are not reproductive machines, and forced fertility will not work, nor will incentives that do not recognise what families actually need."

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ENVIRONMENT

PRE-CONTEXT

GROUNDWATER POLLUTION

THE HINDU, PG.NO: 12.

News: "Excessive nitrates found in groundwater in 440 districts."

Findings reported by Central Groundwater Board:

- **Excessive nitrates have been found in groundwater** in 440 districts as of 2023.
 - **Largely due to the use of subsidised synthetic nitrogenous fertilizer**, a key input for farming.
 - Other major chemical contaminants affecting groundwater **quality are fluoride and uranium**.
- Rajasthan, Karnataka, and Tamil Nadu reported the **highest nitrate contamination problem**.
- Rajasthan and Punjab reported the **highest number of samples with uranium concentration**.

About Central Groundwater Board:

- **Statutory body** constituted under the **Environment (Protection) Act, 1986**.
- **Nodal agency** for ground water development and management in the country.

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GS II

SYLLABUS: PARLIAMENT AND STATE LEGISLATURES—STRUCTURE, FUNCTIONING.

PARLIAMENT FUNCTIONING

THE HINDU, PG.NO: 6.

News: "The sorry state of India's parliamentary proceedings."

Need for Productivity:

- Upholding Democracy.
- Responsibility to people (Art.75).
- Ensuring Checks and Balances.
- Scrutiny of legislative proposals in detail.
- Debate-Discussion-Deliberation.

Causes of low productivity:

- **The 18th LS's first winter session:** was *one of the least productive in history*, with a productivity of 55% for the Lok Sabha and 40% for the Rajya Sabha.
- **Sittings:** First two decades: met average 120 days last decade avg 70 days.
- **Issues with proceeding:**
 - **Increased use of Guillotine:** passing Bills, demand for grams without debates. Average time to pass a bill in Loksabha is <10mins & in Rajyasabha is <30min.
 - **Frequent disruptions and Adjournments during question hour** between 2004 and 2014, the Lok Sabha lost 50% of *Question Hour* time to disruptions—*PRS Study*.
 - **Lack of consensus building mechanisms** i.e due to ineffective *Business Advisory Committee* (BAC) and party *whips*.
 - **Since 2004, only 45% of total bills** have been referred to committees.
- **Issues with Chairman Office:**
 - **Role of speaker:** unwillingness to suspend the members causing disruptions rather opt for adjournments of proceedings.
 - **Vacancy of Deputy Speaker post:** since 2019, "*against the letter and spirit of the Constitution*"—*Former CJI D.Y. Chandrachud*.
- **Loss of trust:**
 - **Between Govt. and Opposition:** where opposition is mostly seen as anti-national.
 - **In Parliamentarians by public:** MPs are confined by their Whips into breaking all the rules they are sworn to uphold.

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PYQs

GS II 2019: Individual Parliamentarian's role as the national lawmaker is on a decline, which in turn, has adversely impacted the quality of debates and their outcome. Discuss.

TECHNOLOGY

PRE-CONTEXT

SPADEX & CHANDRAYAAN-4

THE HINDU, PG.NO: 12.

News: "SpaDeX first of many as ISRO prepares for Chandrayaan-4."

SpaDeX:

- **ISRO has never docked spacecraft earlier**, this capability will be demonstrated for *first time under SpaDeX mission*.
 - Docking is a process where two spacecrafts moving at *extremely high speeds* are *aligned* in a precise and joined together.
- Mission is carried out using *Polar Satellite Launch Vehicle (PSLV)*.
 - The rocket will carry two satellites called *SDX01, dubbed 'Chaser,' and SDX02, dubbed 'Target.'* Each weighs 220 kg.
 - After launch and orbit insertion, the two satellites will *meet in low earth orbit, dock, and then undock*.
- Docking technology is an *essential building-block process for country's own space station, Chandrayaan-4 (moon sample), interplanetary missions*.
 - *Bharatiya Antariksha Station:* India's own Space Station by 2035. First module will be launched in 2028.

Chandrayaan-4:

- Will *bring Moon's rock and soil back to Earth*.
- Mission most likely to happen in **2028**.
- A complex mission *involving several stages*, after getting into lunar orbit:
 - *Two of the modules will detach from main spacecraft* and will make a landing on moon. They will help each other in collecting samples.
 - *1st Docking:* One of the module will launch itself from moon surface to main spacecraft in the lunar orbit.
 - *2nd Docking:* The main spacecraft sends the samples to an Earth re-entry vehicle which will be launched separately from Earth.
 - *Re-entry vehicle* carries the samples back to Earth.
- **Chandrayaan-4 mission modules launched** using *two LVM-3 rockets*.

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ENVIRONMENT

PRE-CONTEXT

ENVIRONMENT SUMMITS

THE HINDU, PG.NO: 18.

News: "Four UN environmental summits fell short in 2024. What happened?"

United Nations Framework on Convention on Climate Change (UNFCCC): COP 29: Baku, Azerbaijan, 2024.

New Collective Quantified Goal (NCQG):

- Which refers to **developed countries (Annex I of UNFCCC)** give money to developing countries to help them meet their goals of **transitioning away from fossil fuels and reducing GHGs**.
- **Before COP 29:**
 - At Cancun, in 2010, developed countries had pledged to provide \$100 billion annually upto 2020.
 - At COP21 in Paris, the parties decided to establish an NCQG prior to 2025.
- **At COP 29:**
 - Developing countries had stated that **at least a trillion dollars per year from 2025-35** would be necessary to meet emission targets.
 - However, the developed world has in the NCQG agreed to provide an abysmal figure of just **\$300 billion annually till 2035**.
 - **The biggest disappointment** is \$300 billion per year doesn't solely come from public finance, but also from Multilateral Development Banks, carbon markets, and private finance.
 - NCQG is not legally binding.
- **A positive aspect of COP 29:**
 - Decision to **triple the flow of public resources** through various operating entities of the Financial Mechanism, **the Adaptation Fund, the Least Developed Countries Fund, and the Special Climate Change Fund** from the 2023 level by 2035.

United Nations Convention on Biological Diversity (UNCBD) COP 15: Kunming-Montreal Global Biodiversity Framework (KMGBF)

- **Adopted at COP 15 of CBD in 2022.**
- It replaced **Aichi biodiversity targets**.
- **Non-binding** in nature.
- **KMGBF Targets (major):**
 - **Protect 30% of Land, Water and Sea** by 2030.
 - **Restore 30% of degraded ecosystems** by 2030.
 - **Eliminate harmful subsidies** causing threats to biodiversity.
 - Reduce **invasive species**.
 - Mobilise **at least USD 200 billion per year** to support biodiversity.
- **Global Environment Facility** provides funds under KMGBF.

COP 16: Cali, Colombia 2024.

- Countries lagging in ambition **failed to finance conservation** at scale, **unable to deliver the \$700 billion-a-year** requirement.
- **Digital Sequence Information (DSI):**
 - Deals with **equitably sharing the benefits from uploading genetic data of organisms** in global databases.

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United Nations Convention to Combat Desertification (UNCCD)

- A key international treaty aimed at **addressing desertification and mitigating the effects of drought**.
- It is one of the three pillars of international environmental governance, alongside the **UNFCCC** and the **CBD** in 1994.
- **Legally binding agreement.**
- **India ratified the UNCCD** in 1996.
- Meets **biennially** to guide the convention and make recommendations.

COP 16: Riyadh, Saudi Arabia, 2024.

- **Industrialised nations clashed with African countries** over the establishment of a legally binding drought protocol.
- **Initiatives by India supporting UNCCD efforts:**
 - National Action Programme to Combat Desertification (**NAPCCD**).
 - **Green India Mission:** Enhances forest cover.
 - **National Afforestation Program:** Increase forest cover and restore degraded lands.
 - **Soil Health Card Scheme.**
 - **Integrated Watershed Management Program (IWMP):** PM Krishi Sinchai Yojana (PMKSY), etc.

Global Plastic Pollution Treaty: Busan, South Korea 2024.

- Led by **United Nations**.
- **Legally binding treaty to address the global scourge of plastic pollution** has opened in Busan, South Korea.
- **Talks concluded without agreement.** because countries that rely on an ongoing demand for plastics opposed a legally binding treaty.

India and Plastic:

- India **banned single-use plastic** in 2022.
- Nearly **24 million tonnes of plastic** packaging have been introduced into India since 2022, despite its limited mechanical **recycling capacity of 9.8 million tonnes—Centre for Science and Environment investigation.**

Similar Conventions:

- **Basel Convention:** aims to reduce the movement of **hazardous waste** between nations
- **Stockholm Convention:** seeks to eliminate or restrict the production and use of **Persistent Organic Pollutants (POPs)**.
- **Rotterdam Convention:** promotes shared responsibilities in the international trade of certain **hazardous chemicals and pesticides**.

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Thank you!